

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

(ESTABLISHED UNDER SECTION 3 OF THE UGC ACT, 1956)



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SELF STUDY REPORT

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2016



VOLUME : I

EXECUTIVE SUMMARY
PROFILE OF THE UNIVERSITY
CRITERIA WISE REPORTS

Learn Today - Lead Tomorrow

SELF STUDY REPORT

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A. EXECUTIVE SUMMARY

SATHYABAMA UNIVERSITY believes in Implementation, Institutionalization, Internalization and Dissemination of the philanthropic ideology “**ENTRY IS NOT IMPORTANT, EXIT IS IMPORTANT**” as guided by the Founder Chancellor Col.Dr.Jeppiaar, thereby creating a unique identity in the academic arena. The thrust to produce efficient technical manpower has been derived from the ingredients of success in the form of Justice, Peace and Revolution. Quality education ensures the **JUSTICE** being served to all the sections of the society. Pragmatic methods of moulding young minds with pleasant academic ambience and care reflect the **PEACE** experienced by the parent and student. Sustained development and periodical changes in the system in accordance with the growing demands of the industry and society is a mark of **REVOLUTIONary** and progressive thought process.

SATHYABAMA UNIVERSITY (formerly known as Sathyabama Engineering College) was established in the year 1987 under JEPPIAAR Educational Trust to promote technical education in the state of Tamil Nadu. Disciplined remained as the focal point of progress in the campus since its inception. The thirst for excellence has been never ending, which is reflexive in the success saga of the institution. Infant years of the institution witnessed brilliant glimpses of performance such as securing the credit of First Engineering College in this region to secure 60% of Medals in Madras University affiliated colleges. Having such trail blazing track record, Sathyabama Engineering College, was granted Deemed University status by the Ministry of Human Resources Development under Section (3) of the UGC Act 1956 on 16th July 2001. This transformation polarized the academic and research activity in the campus towards innovation. The Union Ministry of HRD, Government of India has conferred University Status on 13th September 2006, considering the institution’s progress and contribution to the field of technical education for over two decades. University at this point of time (2006) had four centres for research in specialized areas, 24 funded projects, worth 2 Crores and produced 68 Ph.D holders.

Transition towards precision in progress:

With the great vision of the Founder chancellor, the University is placed in the elite club of academic and research excellence in the country. The University is certified by ISO 9001:2000 for professional quality management, owing to its excellent infrastructure including modern laboratories, smart libraries and research facilities. In the year 2009 another milestone was reached with the inception of '**SATHYABAMA DENTAL COLLEGE**'. In the year 2013, Ministry of Human Resources and Development has declared the University as **Category 'A'** University. Recently, the institute attained Silver Jubilee year with many mile stones crossing in its creation of the history.

The University is located in a sprawling campus spread over 134 acres. Situated in the IT corridor and in the heart of the city, the University is effectively networked with leading Research organizations and Industries. The University is academically re-organised into eight schools with relevant academic departments brought under each School. The University admits candidates for 20 Undergraduate programs (B.E., B.Tech., B.D.S.,) 39 Postgraduate (M.E., M.Tech.,M.Sc,) programs , 05 research programs and Ph.D in all the disciplines.

The University's infrastructure includes sixty one blocks, laboratories, drawing halls, workshops, central and department libraries, hostels, audio visual halls, spacious dining halls and sports facilities. University has 5 Boys and 5 Ladies Hostels with Mess, Laundry and Fitness centre at free of cost. A new boy's hostel has been constructed in order to augment the best campus life of the students. Student life in the University is at its best with sophisticated infrastructure facilities pertinent to sports and 24X7 services like Medical room, ATMs, Emergency Vehicles and also facilities such as Stores, Courier service, Xerox and Binding sections.

A state of art central library with world class amenities situated in an area of 1.5 Lakh square feet is a monumental addition to the infrastructural excellence of the University. The Central Library consists of around 4 Lakh numbers of books with a spectrum of titles, back volumes, Ph.D thesis and various reputed magazines. This is equipped with a Digital library section,

OPAC system, reference section, audio visual rooms and seven conference halls with CCTV facilities. It also consists of nearly 10 years newspapers for the reference. RF ID system is in place for issuing the books to the students and staff from central library. Advisory Bureau of Higher Studies (ABHS) is another wing in the Central Library with diverse collection of books other than curriculum related books of the main library. ABHS is involved in serving to the training needs of students such as offering foreign language courses and certificate courses. ABHS always endeavour to bridge the gap between the International Institutions and our students with programs such as “Abroad University Mela” organized in collaboration with the embassies in Chennai. Value added courses such as “Vedic mathematics in Engineering Applications” is offered through ABHS and awareness programs such as “BE in B.E”.

The “International Research Centre (IRC) and “Research and Development Centre (RDC)” are the platforms of global competence in terms of infrastructure and research activity. This is possible with chain of exceptional laboratories and their optimum utilization led to the enhanced academic and research intent among the faculty and students. These research centres are serving as the knowledge base and experimental forum for the academicians and researchers. This University is fostering extension activities in Research and Development with the installation of world class monolithic platforms and unparalleled experience of knowledge transfer with the International Research Community.

Dental college of the University is yet another example of master piece in the infrastructure. This college has all the major divisions of specialization and laboratories pertaining to dental surgery such as microbiology, pharamacology, oral medicine, perio and prosthodontics etc. University takes pride in having ICT enabled work environment in most of its functional units involved in teaching, learning, research, administration and governance.

Consistent in reaching out to the high standard of excellence aimed by the University, the faculty comprises of handpicked, dedicated and highly proven individuals selected through standard recruitment procedures. University has MOUs with several International Universities and also with industries like WIPRO, ACCENTURE, COGNIZANT, CSC, EMERSON, FL SMIDTH,

VIRTUSA and INFOSYS for the purpose of enriching the technical education and also with various premier training institutes to cater the competitive examination training needs of the students.

National Institutional Ranking Framework, Ministry of Human Resource Development, Government of India had ranked Sathyabama University as **2nd rank** amongst private universities in Tamilnadu, **5th rank** amongst all universities in Tamilnadu, **42nd** amongst all universities in India. The University has been awarded **B Grade** by National Assessment & Accreditation Council (NAAC) in the year 2015. This period after NAAC has galvanized our strength towards reviewed strategies, reframed objectives and revised methods of implementation for the development activities in the campus. The results are reaping out gradually in all the domains and the early bird success raised the benchmark of technical excellence with “**SATHYABAMASAT**” launch on June 22, 2016.

Research in the Campus:

Research in the campus has its own expansion and diversity in various domains those include Remote Sensing, Ocean Research, Nanotechnology and Space Technology. University has established several research centres in collaboration with National Research organizations. The research activity is progressive and proactive with **8479** publications with H-index of **38. 208** Funded projects worth of **51** Crores have been sanctioned and many of them have been successfully completed.

The University has undertaken various sponsored and collaborative Research and Development projects funded by national organizations such as Indian Space Research Organization (ISRO), Department of Science and Technology (DST), Indira Gandhi Centre for Atomic Research (IGCAR), Defense Research and Development Organization (DRDO), National Institute of Ocean Technology (NIOT), Department of Atomic Energy (DAE), Institute of Plasma Research (IPR), Ministry of Environment and Forests (MoEF) etc,. The University holds great promise to expand the applications of space technology, benefiting the common man and enriching the

quality of life in association with Indian Space Research Organization (ISRO) through programs such as Village Resource Centers. Technology business incubator has been established in association with NSTEDB -DST.

The outcomes of the R&D projects taken by the University leads to increased facilities for innovative teaching, learning and Research activity, Indigenous development and commercialization of new products and ideas, long term collaboration with renowned R& D organizations in India & Abroad. University encourages In-house research and consultancy projects to solve the crucial needs that arise for the Industry and research organizations so that prompt technical solutions can be rendered. University is embedded with a spectrum of Research Centres, which are the fusion centres for all the research activities in various disciplines of the campus.

Centre for Academic Research offers Ph.D Programme (Internal / External). Research is offered in all branches of Engineering, Technology and in Science and Humanities. This centre provides research opportunities to the aspiring candidates serving in Educational Institutions / Industries / Research Organizations / Research Laboratories and Government Departments. Centre for Research encourages the scholars to have collaborative projects with the University. It is offering admission twice a year. This centre functions with full commitment towards Research and Development of societal importance with the enthusiasm to serve the community.

The International Research Centre (IRC) stands as the true reflection of the global expertise in terms of ideating, implementing and in consultancy. Enthusiastic researchers from abroad participate and pursue in the active research in this facility. "Nano Umbrella" is the finest innovation emerged out of the technical competence of this installation.

In order to promote the fundamental research and so as to transform as the live wire for research in life science for the country, University established the Research and Development Centre (RDC) in 2015, which is of truly an International standard monumental induction to the success tale of Sathyabama University in research. It is equipped with the conjugation of Centre

for Ocean Research, Centre for Drug discovery and Development, Centre for Animal Research and Technology and an exclusive Technology-Business Incubator (TBI). University believes in bringing rich flavor of research that is reachable to the common man. To support this ideology, fostering knowledge at every level is vital and therefore a discussion room has been added in every centre to transform the ideas into reality, hypothesis to conclusion and passion into product. This is well supported by “Technology-Business Incubator (TBI)” which was included to provide potential market for the innovations of the research centers. This certainly attracts and encourages the young researchers all over the world, as they will be in a state to enjoy every needed facility in a unique platform.

Centre for Ocean Research upholds exploration of research in living and non-living marine resources that covers a broad spectrum of scientific disciplines for the welfare of human and marine community. Intensive mining of marine resources for the discovery of **novel bioactive compounds** as therapeutic agents in treating various diseases in the marine community and major diseases in humans is currently practiced. RDC intends to establish research activities in the major thrust areas like AIDS, Tuberculosis, Cancer, Diabetes etc. utilizing various natural resources and attain sustainable socio-economic development.

Centre for Drug Discovery and Development that provides expertise and infrastructure enabling the discovery and biological evaluation of therapeutic agents to move through pre-clinical trials. The research and development activities of the research centers are done after clearance from Institutional Biosafety and Institutional Human Ethical Committees. Centre for Drug discovery and development established in the year 2013 is intended to strengthen the research activity in the ongoing anti TB and anti HIV drug discovery. Compounds from plants, marine organisms and those from actinobacteria isolated from rare ecosystems will be screened for anti TB and anti HIV activity. The molecular targets of M. tuberculosis and HIV will be identified and validated and promising leads will be generated. It provides a platform where all resources intellectual, scientific, industrial and pharmaceutical manpower of this country could work in a joint effort to realize the dream drug discovery for common man's ailments.

Centre for laboratory Animal Research and Technology is oriented as an integrated approach to deal with disease diagnosis and evaluate or standardize novel therapeutic drugs in laboratory animals with the mandate from Institutional Animal Ethical Committee.

Centre for Remote Sensing and Geoinformatics established in 2005, is a joint initiative with Indian Space Research Organization (ISRO), Govt. of India, Bangalore. The centre to its credit successfully completed projects that are funded by ISRO, BHAVINI MoEF, DST, CSIR, C-WET, ICMR etc. Centre has very good infrastructure in the form of advanced remote sensing GIS software and also hardware like DGPS, A0 plotters and scanners.

Centre for Nanoscience and Nanotechnology an international level research centre has been established in the year 2006 at Sathyabama University to accomplish the goal of establishing advanced research in frontier areas of Science and Technology. The centre is a joint initiative of Indira Gandhi Centre for Atomic Research (IGCAR), Govt. of India, Kalpakkam and Sathyabama University. The Centre focuses on research and development projects in the field of Synthesizing Carbon Nano Tube sensors and investigations on the bio degradation of the concretes. The leading area of research includes nanomaterials, Nanocomposites, nanoelectronics, nanofabrication. Centre under takes R&D projects from various agencies and offers consultancy services to industries and R&D organisation in India and abroad. Centre has state - of - art facilities to facilitate advanced research at nanoscale for development of innovative products. Molecular & Nanomedicine Research Unit a part of Nano Centre was started in 2013 to promote research activities in the arena of drug delivery and functional genomics.

Village Resource Centre was established in the year 2005 at Sathyabama University. The centre is a joint initiative with ISRO. It is a Satellite based E-learning Center of Excellence connecting 300 villages in the country with Sathyabama University in Tamilnadu utilizing the Edusat/ INSAT satellite for Manpower Development from rural students through one year skill development programme in the areas of Plumbing Technician, Medical Lab Technician, Nursing Assistant, Electrician Technician and arranging for placement from the companies and Hospitals

for the students those who are completing the programme successfully with the help of various companies and Hospitals. The diploma certificates will be given to the students at the end of the programme.

Centre for Space Technology Centre is a joint initiative of Sathyabama University and Indian Space Research Organization (ISRO), Govt. of India, Bangalore, was established in the year 2009. This Centre designed and developed a nanosatellite named "SATHYABAMASAT" that monitors atmospheric pollution. The special focus of this satellite is to detect green house gas constituents in Near InfraRed region. This satellite is designed and developed by a 40 member core team of students, staff with the knowledge being shared with eminent scientists of ISRO. **The success of this launch is shared and appreciated personally by "The Prime Minister of India" with the students and staff of the University in Parliament House.**

Centre for Earth and Atmosphere Science was established in 2010 and aims to monitor surface weather observation data for wind speed, direction, relative humidity, temperature, pressure and background nuclear radiation. A 50 metre meteorological tower had been erected in the University in association with Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam. The Centre has conducted various National level Training and Workshop programmes in the areas of Real Time Weather Information System, Geoinformatics and Climate Change under the Ministry of Earth Sciences (MoES), National Natural Resource Management (NNRMS-ISRO). In February 2012 India Meteorological Department (IMD), Chennai has installed the first Automatic Rain gauge station (ARG) at our Centre which facilitating Temperature, Rainfall and Humidity.

Centre for Quality Assurance and Non-Destructive Evaluation is a joint Initiative of IGCAR, Kalpakkam & Sathyabama University, was established in the year 2010 at Sathyabama University. This Centre has successfully completed many projects and workshops, while some are still ongoing and few are initiated which are sponsored by various Agencies and Research organizations like Indira Gandhi Centre for Atomic Research (IGCAR), Board of Research in Nuclear Sciences (BRNS), Department of Science and Technology (DST), Combat Vehicles Research and Development Establishment (CVRDE) and Board of Research in Fusion Science

& Technology (BRFST). Centre focuses on diverse areas of NDE techniques such as Thermography, Radiography, Ultrasonics Techniques and its Signal and Image analysis.

Centre for Advanced Electronic Test Engineering is a Joint Initiative with QMax Test Equipments and Established in the Year 2011. A centre with state of art equipments such as Automated Combinational Board testing system, Semiconductor testing system, Reverse engineering system, Boundary scan test systems, Analog and mixed signal test systems exist in the centre.

Centre for Waste Management is a joint initiative with National Solid Waste Association of India (NSWAI). Environmental pollution and Aesthetic degradation is increasing in such a drastic pace which has lead to serious focus on managing the waste generated. The centre through its innovative technologies encourages Research and Developmental activities for cleaner and greener environment and also promotes public awareness in waste segregation and management. It provides support and information in all formats through the centre for the betterment of the environment and establish an Integrated Environmental Management System adapting the 3R concept. is a joint initiative with National Solid Waste Association of India (NSWAI). Environmental pollution and Aesthetic degradation is increasing in such a drastic pace which has lead to serious focus on managing the waste generated. The centre through its innovative technologies encourages Research and Developmental activities for cleaner and greener environment and also promotes public awareness in waste segregation and management. It provides support and information in all formats through the centre for the betterment of the environment and establish an Integrated Environmental Management System adapting the 3R concept.

Centre for Climate Change Studies established in the year 2011 has taken initiative on consultancy and R&D project in the field of Environmental, Natural Ecosystem, Climate Change inputs

Centre of Excellence for Energy Research established in the year of 2014 funded by MHRD aims to enhance the quality and quantity of basic and applied research programs in energy studies. The centre will focus on sustainable energy research in India. It would certainly endure as a regional leader and serve as a nodal centre in the research and development programs of energy sectors. The core group of the centre has competent enough as they already initiated several activities in the area of energy materials. This centre would contribute significantly in building a robust research centre for energy to carry out R&D programmes in the areas of Solar Cell, Solar Thermal, Fuel Cell, Bio-energy and Super capacitors for the sustainable energy. The Centre also would organize training programs/workshops/conferences for students, researchers, academic staff, and scientists in India to further strengthen their expertise in the areas of energy research, to accelerate the India's human development index and to provide energy security.

These Research Centres are the quintessence of perseverance and pride of the University.

Quality Consciousness:

The pyramidal model of development aims at the convergence of excellence in performance at the summit of the institutional success by strengthening the core value system. This serves the dual purpose of building a solid foundation of ethical and technical background besides enriching the components of confidence, creativity and innovation among the students. This is well supported and streamlined by the IQAC of the University. The programs offered gives due priority to experimental learning and also ensure equal credence to practical and theory based curriculum. The quality of the academic activity is enhanced by frequent interaction with academicians, alumni and industrialists. Choice based credit system, modified academic curriculum with more emphasis on corporate needs, Open electives, Choice based staff selection system, credits for internship and semester abroad program are the measures taken in the recent past to induce prolific quality component into the system. Continuous evaluation system is further strengthened with 50-50 percentage weight-age system in place for internal and external examinations. The feasibility study of Open book system is in progress. Course materials for the subjects are made available to the students that give the benefit of extra

reading related to the topics of the syllabus. Scholarships are offered for meritorious students and through programs such as “Madam Remibai Jeppiaar Scholarship Scheme”. Every year in the mid of April, University conducts “**SATHYABAMA ENTRANCE EXAMINATION**” all over India for admission of the students for graduation programs on merit bases. This is an online based examination conducted in all the major cities of the country. University offers full tuition fee waiver for the top 25 students in this examination. University encourages the faculty to fulfil their thirst for learning with various faculty refreshing programs conducted within the campus and also by motivating them to participate in such programs conducted by other reputed institutions.

University believes that success of the student centric development depends on the active involvement and understanding distinct roles and responsibilities by the students. This ideology is translated as an exclusive platform of opportunities for students, known as Student Development Cell (SDC). This SDC comprises of Student members guided by staff. It constitutes of Aero club, Design Club, Maths Club, Science Club, Computer Science Club, Literary Club, Robotics club etc. SDC conducts seminars, guest lectures and workshops in their respective domains periodically to enhance the technical talents of the student and also to motivate the students towards societal development. “**STUDENT ACTIVITY CENTRE**” serves as the platform for these progressive and innovative mind mapping programs. Innovation club is the new addition to these clubs, which is the specimen of mentoring the heterogeneous pool of students.

University possess full-fledged Placement cell that continuously monitors the employment opportunities available in various domains and arranges the campus interviews for the eligible students both at Under Graduate and Post Graduate level. We have the State of the art Placement Cell infrastructure which comprises of Auditorium, GD Panel rooms, Closed Interview Panels and Conference Hall. The entire facility is designed keeping in mind to ensure that both students and the recruiters have a comfortable recruitment experience.

Our Placement and Training Cell offering Career Development Program for the students who are raring to enter the corporate world and introduce them to the prospective employers according to their aspirations and background. As per the NASCOMM guidelines, the campus recruitment program commences after the end of Pre-Final semester examination. Our placement process extends “Dream job offer” for students to enjoy the choice of their career. This is one of the good reasons for our students to hold the belief that their “career begins with us”. Business English Certificate is one such program been offered to our students to develop their listening, speaking, reading and writing skills. Students are encourages to take this during their second year of studies with us. Regular Seminars are conducted to keep in touch with the recent trends in the Higher education scenario by resource persons from United States Educational Foundation in India (USEFI) - a part of U.S. Embassy, U.K. Consulate, Professors from Foreign Universities and our Alumni who have done Higher Studies and employed in India and Abroad. We ensure that our students are proficient with the expectation of the industry. The success rate of our placement earned the trust of parent and student community that is being reflected in our alumni meetings, regular interaction with stake holders and the sustained admission rate into our programs. University placement cell won awards and laurels from the industry for the efficient manpower and sustained collaboration in the exchange of knowledge. Placement cell is also planning to offer training from first year onwards to students from this academic year.

University is equipped with NSS and NCC along with YRC (Youth Red Cross) wing; those take up various service oriented activities like Programs on Road Safety, First Aid Training etc. in and around the region. For the past seven years YRC honours the University by awarding the Rolling Shield for maximum number of blood donors among State level Private Universities.

Every honest initiative leads to longevity in success. The University took few initiatives in the past; our quality measures are consistent and compete with the changing trends. These steps lead to various accomplishments and an overview of them is listed below:

MAJOR ACHIEVEMENTS AND INITIATIVES IN THE PAST FIVE YEARS:

- “SathyabamaSat” is the prime example for the technical competence in par with the global standards, this nano satellite is designed and developed by the students and staff of the University, which was launched on 22nd June, 2016
- “JEPPIAAR NANO UMBRELLA” has been developed by the International Research Centre of the University using Nanoparticles, the features include UV blocking, Non-wetting fabric, and this is unveiled in the year of 2014
- It is one of the proud moments for the University International Research Centre, as FESEM Image entries were shortlisted in a Global Contest conducted by the OXFORD INSTRUMENTS, UK in 2014.
- WOW: Under this program, a car was designed by our Faculty of Mechanical Engineering staff students, which is very friendly for the physically challenged individuals. WOW refers to will on wheels, happened in the year of 2013. In testing the quality of the product, Mrs. Deepa Malik, Arjun Award winner has driven this car from Chennai to Delhi successfully.
- Power series lectures were organized in various domains and Nobel Laureates were invited to the campus to interact with the students. Dr. Walter SameulGerst Kohn visited the campus and shared his valuable expertise with the staff and students on 5th and 6th of Dec, 2013. Prof.Douglas Osheroff of Stanford University has also shared his thought provoking ideas with the students on 24th Dec, 2013 through teleconference.
- Sathyabama University feels proud to have inaugurated the World’s Largest Solar Steam Cooking System on 1st of July, 2009 in the campus. We have 110 concentrator dishes with an area of 1100 m² (World’s largest installation in terms of the number of dishes and square metres of the reflecting concentrator dishes). These solar steam cooking systems were developed by M/s. Gadhia Solar Energy Systems Pvt. Ltd., Gujarat.
- “PAPER LESS University” initiative taken up by the management will be the game changer towards boosting up objective of the environmental friendly campus.

- Strengthened quality assurance mechanism through IQAC assists the system to revitalize in the less competent areas
- De-centralization of the administration is the reflexive measure taken from the suggestions of the academic experts. Diffused administrative model has been brought into the system with the induction of Deans for the respective schools and Deans for Student and Staff
- Induction of various Skill development programs such as “organic farming and mushroom cultivation”, “Photography”, “Laptop Servicing” and “Digital Marketing”.
- Terrace farming initiatives towards realizing the dream of green campus, eco and rotaract clubs are instrumental in this process.

ARTS, CULTURE AND SPORTS:

Good Culture nurtures the good character, good character creates great personalities. The University understand this theory well and imbibes the essence of it in developing and encouraging cultural instincts of our students. Cultural programs are organized several times during the year to encourage creative pursuits of the students. The organizing teams are formed by students and share the responsibility together. Sathyabama University had its greatest privilege and pleasure to celebrate the extravaganza, “**FEMFEST**” in the mid of February every year. It was college carnival conducted “FOR THE GIRLS, BY THE GIRLS”. Minimum of 45 colleges from all over Tamilnadu participates every year and bags wonderful prizes worth Rs.5 lakh. University organizes “**CULTURALS**” for all the students to encourage their cultural talents. Sathyabama University proudly hosted the ‘South Zone Inter-University Youth Festival’, which was organized by the Association of Indian Universities during 19th to 23rd December 2002.

National Association of Students of Architecture (NASA) convention, ‘YUGAM-02’ conducted by the Sathyabama University, Chennai at their premises in December 2002. The highlight of the event was the attempt to paint the ‘**World’s Longest Painting**’. Their efforts have been finally

rewarded, when the **Guinness World Records Ltd.** announced that their attempt has been recognized and have been awarded the certificate.

Sports have played an important role in the evolution of Sathyabama University and claim a fair share in the progress of the institution. We are proud of not only having excellent sports facilities, but also have produced sports men of the highest calibre, who have represented the country in various disciplines like volley ball, basket ball etc. Our University organizing the Dr. MGR Memorial state level inter engineering tournament for the last two decades.

Inclusive growth model for social empowerment:

The development of nation depends on the empowerment of the society. Sathyabama University understands this fact and is very particular in carving a niche for itself in this regard. Our leadership always sets the benchmark in reaching out to the needy sections of society and in making professional education within the reach of the common man. **In 2016, Dr. Mariazeena Johnson, Managing Director of Sathyabama University has been recognized one among the 100 Women Achievers and had been appreciated for the impact created in the society through education by the President of India.** Deriving inspiration from the leadership the University has taken up various programs and measures to lend a helping hand to various sections of society. The institution adopted “Inclusivity approach” in supporting children of war-widows, orphans children, physically challenged, financially disabled, downtrodden children. University also helps “Under Privileged Students” of the society in continuing their higher education successfully by all means right from providing free food, education and lots of care in shaping their lives. Nearly 1500 students of this category are enrolled every year in the campus. Student Development Cell of the University had adopted few Government schools nearby to improvise the standard of those schools in all respects. The Community development club students of the University assembled systems for establishing the computer lab facility in the adopted school. SDC students meet those schools every week to improvise the infrastructures like water facility, Rest-room facility, class and lab facility, book facility for those schools. Acid victim children are given opportunity to continue their study with full scholarship is another initiative towards inclusive societal development.

“MY SATURDAY UNIVERSITY” is a fine initiative towards imparting interest in education among young minds. This is a program directed towards the school children in the surrounding regions, to come and learn in the University on every Saturday in the chosen modules, particularly framed to enhance the interest in learning. **“EARN WHILE YOU LEARN”** is another program that is directed towards bringing the dropouts of the school, to be back in the stream of learning and by the way helps the students of our University to understand the joy in learning and earning simultaneously. University conducted **“VOCATIONAL COURSES”** through VRC in association with ISRO to train the manpower of remote villages in Tamilnadu in electrical, plumbing and nursing courses.

University believes in women empowerment and about 70% of hierarchical positions are held by women. In the context of modern day challenges faced by the women in pursuing education and in work, University can be regarded as the destiny of safe and secured environment especially for girl children. The institution concentrates and works consistently on all the aspects of training, research, societal development and thereby for nation’s growth.

Our Concerns:

Our motto is **“TOGETHER FOR BETTERR TOMORROW”** and our mantra of Success is **“LEARN TODAY and LEAD TOMORROW”**. Student as an individual should step into the society with the sense of pride, empowered with knowledge in his domain, confidence to face and win the challenges thrown by the society. The campus life ensures the inculcation of these qualities among the students. We practice and teach to ours students that **“JOY OF LIVING IS IN JOY OF GIVING”**. The University aims to be the destiny of efficient and responsible technocrats those are fit enough to serve the industry and society. The University aspire to be the source of pride for the nation as we uphold care above all, and teaching is the breathing of our life at campus.

B. PROFILE OF THE UNIVERSITY

1. Name and Address of the University

Name	Sathyabama Institute of Science and Technology		
Address	Jeppiaar Nagar, Rajiv Gandhi Salai		
City : Chennai	Pin : 600 119	State: Tamil Nadu	
Website: www.sathyabamauniversity.ac.in			

2. For Communication

Designation	Name	Telephone with STD code	Mobile	Fax	E-mail
Vice – Chancellor	Dr. B.Sheela Rani	(044) 24502658	09840941389	(044) 24500646	vc@sathyabamauniversity.ac.in
Pro – Vice Chancellor	-	-	-	-	-
Registrar	Dr. S. S. Rau	(044) 24503243	09444238423	(044) 24502344	registrar@sathyabamauniversity.ac.in
Steering Committee Co-ordinator	Dr.E.Logashanmugam	(044) 24503162	09444248015	(044) 24502344	dean.staffaffairs@sathyabamauniversity.ac.in

3. Status of the University

State University

State Private University

Central University

University under Section 3 of UGC (Deemed University) Institution of National Importance

Any other (please specify)

√

4. Type of University

Unitary

√

Affiliating

--

5. Source of funding:

Central Government

--

State Government

--

Self-financing

√

Any other (please specify)

--

6. a. Date of establishment of the university: 16 / 07 / 2001**b. Prior to the establishment of the University, was it a / an**

1	PG Centre Affiliated	Yes	--	No	--
2	College Constituent	Yes	--	No	--
3	College	Yes	√	No	--
4	Autonomous College	Yes	--	No	--

Sathyabama Engineering College was established in 05 / 10 / 1988

7. Date of recognition as a university by UGC or any other national agency:

Under Section	dd	mm	yyyy	Remarks
2f of UGC*				
12B of UGC*				
3 of UGC#	16	07	2001	Since the inception of the University
Any other				

8. Has the University been recognized?

a. By UGC as a University with Potential for Excellence?

Yes -- No

If yes, date of recognition : Not Applicable

b. For its performance by any other governmental agency?

Yes No --If yes, Name of the agency: **MHRD** Date of Recognition: **19/10/2012**Name of the agency: **NIRF** Date of Recognition: **04/04/2016****9. Does the university have off-campus centres?**Yes -- No **10. Does the university have off-shore campuses?**Yes -- No **11. Location of the campus and area:**

	Location	Campuses area in acres	Built up area in sq. Mts
i. Main Campus Area	Urban	134	5,52,493
ii. Other Campuses in the Country	--	--	--
iii. Campuses Abroad	--	--	--

(* Urban, Semi-Urban, Rural, Tribal, Hilly Area, Any other (please specify)

If the university has more than one campus, it may submit a consolidated self-study report reflecting the activities of all the campuses.

12. Provide information on the following: In case of multi-campus University, please provide campus-wise information.

❖ Auditorium / Seminar complex with infrastructural facilities

S.No	Name of the Hall	Built up area in Sq.mts.	Seating Capacity
1	AC Auditorium 1	134	100
2	AC Auditorium 2	843	550
3	AC Auditorium 3	766	500
3	AC Auditorium 4	777	200
4	AC Auditorium 5	134	120
5	AC Auditorium 6	566	400
7	AC Auditorium 7	282	175
8	Non AC Auditorium	2531	3000

❖ Sports facilities

Playground				
S.No	Name of the Facility	Numbers Available	Nature	Speciality
1	400 mt Track	1	Mud with 8 lean	
2	Basket Ball [Indoor]	2	Wooden	Floodlit with Gallery
3	Basket Ball [Outdoor]	4	Cement concrete	
4	Volleyball [Indoor]	2	Wooden	Floodlit with Gallery
5	Volleyball [Outdoor]	10	Cement concrete with felt light	Floodlit with Gallery
6	Tennis [Synthetic]	1	Mud with 8 lean	
7	Tennis [Sand]	2	Mud with 8 lean	
8	Badminton [Indoor]	6	Wooden	
9	Badminton [Outdoor]	6	Cement	

S.No	Name of the Facility	Numbers Available	Nature	Speciality
10	Handball	2	Cement concrete	
11	Table Tennis [Indoor]	2	Wooden	
12	Football Field	2	Mud with 8 lean	
13	Hockey Field	2	Mud with 8 lean	
14	Ball Badminton	2	Mud with 8 lean	
15	Kho-Kho Court	2	Mud with 8 lean	
16	Kabaddi Court	4	Mud with 8 lean	
17	Throw Ball	2	Mud with 8 lean	
18	Gymnasium [AC/Hall]	1		
19	Gymnasium [Non AC]	1		
20	Chess & Carron [Indoor] m	1		

- Gymnasium : 02
- Any other (please specify) : Nil

❖ Hostel

● Boys Hostel

- i. Number of Hostels : 05
- ii. Number of Inmates : 3400
- iii. Facilities : Computer lab, Wi-Fi, Telephone / Fax, ATM, Xerox, Indoor, Gym, Indoor Mess, Mediation centre, Stores, Beauty Parlour.

● Girls Hostel

- i. Number of Hostels : 05
- ii. Number of Inmates : 2500
- iii. Facilities : Computer lab, Wi-Fi, Telephone / Fax, ATM, Xerox, Indoor, Gym, Indoor Mess, Meditation centre, Stores, Beauty Parlour.

- Working Women Hostel : Nil

❖ Residential facilities for faculty and non-teaching : Nil

❖ **Cafeteria : Yes**

The university has three mess halls with the centralized kitchen, these halls provides breakfast, Tea, Lunch to all the students and staff.

- General Mess hall with 5962 Sq.mts. with seating capacity of 4000 students.
- PG Mess hall with 7257 Sq.mts. with seating capacity of 3000 students.
- Ladies Mess hall with 2965 Sq.mts. with seating capacity of 3000 students.

❖ **Health Centre** – The University has 100 bedded multi speciality general which take care of medical requirement of university, with has in-patient department and outpatient department, 24 hours ambulance facilities and 24 hours emergency services.

❖ **Facilities like banking, post office, book shops, etc.**

Yes. Available Indian Bank, 2 ATM, Post office, Xerox Centre, Stores.

❖ **Transport facilities to cater to the needs of the students and staff**

More than 200 buses for body build units, 2 petrol bunks, and workshop.

❖ **Facilities for persons with disabilities**

Walking Ramps in order to fulfill the needs of physically challenged students and staffs; Provision of Elevators in multipurpose multi-storeyed buildings; Battery powered vehicle for internal movement; Application in Braille and Scribes for visually challenged etc.,.

❖ **Animal house**

A common research unit and lab animal facility (to be approved by CPCSEA, MOEF, Govt. of India), GLP compliant for laboratory animal research is established for Biotechnology, Biomedical engineering, Bio-nanotechnology, Biochemistry, Biophysics, Biomaterials, Microbiology,

Pharmacology, Pathology, Preclinical trials etc., which is of paramount importance for academics/research excellence.

A research unit with well-equipped lab animal facility with rat, mice, guinea pig and rabbit for research, where in, all the above disciplines can be strategically housed, so as to enable a researcher to work continuously in a hassle free research environment. Essentially animal research centre for the use of research scholars / scientists from various disciplines will be ideal. This will include a full-fledged operation theatre with post-operative care and management to form a core group for lab animal research. The lab animal facility is having Institutional Animal Ethics Committee (IAEC) for CPCSEA approval.

❖ **Incinerator for laboratories**

- Electrical and oil fired Incinerator are available with capacity of 200Kgs/ hour.
- Liquid Waste is decontaminated and treated at the sewage plant and disposed.
- Solid Waste is segregated and handed over to the common facilitator who collects the Biomedical Waste of the hospital.

❖ **Power house**

Yes, Eight Generators with following capacity

720 KVA Generator	: 1 No
625 KVA Generator	: 2 Nos
500 KVA Generator	: 3 Nos
320 KVA Generator	: 1 No
185 KVA Generator	: 1 No

❖ **Waste management facility**

Waste water collected from different hostels are recycled and used for the cultivation of water grass in sewage farm.

13. Number of institutions affiliated to the University:

Not Applicable.

14. Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University:

Not Applicable.

Yes -- No √ Number --

15. Furnish the following information:

Particulars	Number	Number of Students
a. University Departments		
Undergraduate	20	13295
Postgraduate	23	604
Research Centres on the Campus	13	-
b. Constituent Colleges	--	--
c. Affiliated Colleges	--	--
d. Colleges under 2(f)	--	--
e. Colleges under 2(f) and 12B	--	--
f. NAAC accredited Colleges	--	--
g. Colleges with Potential for Excellence (UGC)	--	--
h. Autonomous Colleges	--	--
i. College with Postgraduate Departments	--	--
j. Colleges with Research Departments	--	--
k. University recognized Research institutes / Centres	--	--

16. Does university confirm to the specification of Degrees as enlisted by the UGC?

Yes √ No --

17. Academic programmes offered by the university departments at present, under the following categories: (Enclose the list of academic programmes offered)

Programmes	Number
UG	20
PG	39
Integrated Masters	---
M.Phil.	03
M.Tech (By Research)	01
Ph.D.	01
Integrated Ph.D.	---
Certificate	04
Diploma	---
PG Diploma	---
Total	68

18. Number of working days during the last academic year

290 Days

19. Number of teaching days during the past four academic years

180

180

180

180

20. Does the university have a department of Teacher Education?

Yes

--

No

√

21. Does the university have a teaching department of Physical Education?

Yes

--

No

√

22. In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?

Yes

√

No

--

If yes, please enclose approval / recognition details issued by the statutory body governing the programme. [UGC, MHRD, DCI, COA] (Annexure B1.3)

23. Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.

UGC, MHRD, DCI, COA. (Annexure B1.3)

24. Number of positions in the university

Positions	Teaching Faculty			Non-Teaching Staff	Technical Staff
	Professor	Associate Professor	Assistant Professor		
Sanctioned by the UGC / University / State Govt.	122	150	503	1032	154
Recruited	-	-	-	-	-
Yet to recruit	-	-	-	-	-
Number of Persons working on Contract basis	-	-	-	-	-

25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc / D.Litt	01	--	--	--	--	--	01
Ph.D	51	58	33	26	44	26	238
M.Phil	-	-	11	05	13	31	60
PG	10	2	35	40	157	189	433
UG	-	-	-	-	6	37	43
Total	62	60	79	71	220	283	775
Temporary Teachers							
Ph.D	Nil						
M.Phil							
PG							
Part Time Teachers							
Ph.D	Nil						
M.Phil							
GG							

26. Emeritus, Adjunct and Visiting Professors.

	Emeritus	Adjunct	Visiting
Number	03	04	07

27. Chairs instituted by the University:

School / Department	Chairs - 03
Dept. of Vis com	Dr.MGRamachandran Chair Dr.Sivaji Ganesan Chair
Dept. of Electronics	Mr.Kasthuri Rangan Chair

28. Students enrolled in the university departments during the current academic year (2016-2017), with the following details:

Students	UG		PG		Integ.		M.Phil.		Ph.D.		Diploma		Certificate	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
From the state where University is	1282	311	163	71	-	-	2	4	16	46	-	-	36	24
From other states of India	1632	325	62	24	-	-	-	-	11	04	-	-	-	-
NRI students	19	4	-	-	-	-	-	-	-	-	-	-	-	-
Foreign students	6	3	-	-	-	-	-	-	-	-	-	-	-	-
Total	2939	643	225	95	-	-	2	4	37	50	-	-	36	24

M - Male; F – Female

29. 'Unit cost' of education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) Including the salary component = **Rs. 0.8 Lakhs**

(b) Excluding the salary component = **Rs. 0.33 Lakhs**

30. Academic Staff College: Not applicable

31. Does the university offer Distance Education Programmes (DEP)?

Yes

No

If yes, indicate the number of programmes offered.
Are they recognized by the Distance Education Council?

32. Does the university have a provision for external registration of students?

Yes

No

If yes, how many students avail of this provision annually?
External registration facility is available only at Ph.D. Level.

33. Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.

Accreditation: Cycle 1 Cycle 2 Cycle 3 Cycle 4

Re – Assessment:

34. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle2: **14.09.2015** Accreditation outcome/Result **B Status**

Kindly enclose copy of accreditation certificate(s) and peer team report(s):
(Annexure B1.4)

35. Does the university provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent / autonomous colleges under the university.

Not Applicable

36. Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).

IQAC	03/07/2007	
AQAR	(i)	16/07/2007 for the year 2006-2007
	(ii)	29/08/2008 for the year 2007-2008
	(iii)	07/08/2009 for the year 2008-2009
	(iv)	08/09/2010 for the year 2009-2010
	(v)	22/07/2011 for the year 2010-2011
	(vi)	16/07/2012 for the year 2011-2012
	(vii)	09/08/2013 for the year 2012-2013
	(viii)	16/07/2014 for the year 2013-2014
	(ix)	05/08/2015 for the year 2014-2015
	(x)	03/08/2016 for the year 2015-2016

37. Any other relevant data, the university would like to include (not exceeding one page).

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CRITERION I - CURRICULAR ASPECTS

1.1 Curriculum Design and Development

1.1.1 How is the institutional vision and mission reflected in the academic programmes of the university?

Sathyabama University envisions an effective and competent source of technical manpower to cater to the needs of the industry for the present and future by way of providing higher technical education. Thrust research areas are identified for carrying out the research in association with leading National and International Institutes, Industries and Research and Development Organizations in order to achieve the University Vision. To cater the needs of the industry and the social demands, design of new courses were carried out and are introduced thereby serving the community at large. The outcome of the research activities are propagated to the society and industry by way of patents, products, refereed publications, seminars, workshops, symposium and through other academic forums. Discipline is inculcated in students by keeping ethical and moral standards for improving the quality of the human race.

In order to meet the University Objectives, new courses and programmes are introduced that are envisioned by the Academic Council, Board of Management and Board of Studies. A continuous evaluation process has been followed in order to monitor and evaluate the skills that are acquired by the student for the offered courses and programmes.

The University aims:

- To educate and mould students towards employability by providing opportunities for the young engineers to become the future technical personnel of International calibre.

- To motivate the students towards cutting-edge research and to achieve breakthroughs in the emerging thrust areas of technology.
- To promote academic growth by offering state-of-the-art undergraduate, postgraduate programmes to suit Industrial and Societal needs.
- To serve as a valuable resource for the industry and to serve the community at large; and remain a source of pride for all Indians.

Thus the vision and mission of the University is aligned with the academic curriculum for the holistic development of the students.

1.1.2 Does the university follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).

Yes. A systematic procedure is adopted by the University in the design and development of new courses and curriculum. The process is detailed below:

- Comprehensive Revision of syllabus is done once in every three years for all UG and PG programs. Last major revision of syllabus was carried out in the year 2015. **Syllabus revision is done in the inferential period as and when necessary.**
- Academic meetings are organized regularly by the University based on the feedback provided by the stake holders of the University (Students, Parents, Alumni, Academicians and Industry Experts). In order to achieve the University goals, industry and societal requirements are considered and the suggestions are incorporated into the curriculum. Training is provided to the teaching members for the newly introduced courses to equip and update themselves and there by transferring the acquired knowledge to the student fraternity.
- Feedback from the students and staff are collected at the end of each semester for assessing the quality of teaching, evaluating the course curriculum.

- As per the UGC guidelines, the Board of Studies comprises of intellectuals from Academia, Industries, Research Organizations, Scientific institutions and Institutes of National importance. The stake holders from different section of the society ensure the relevancy in the curriculum development process.
- Based on the inputs from faculty, feedback from Industry experts and from students, the proposal for the new programs and courses are designed. At least two times in a year, the academic council meeting is organized for reviewing the syllabus based on the feedback from the stake holders and on the technology advancement. To cite a few,
 - Mobile Application Development, Rich Internet Applications, Software Testing have been introduced for Under graduate Courses and Big Data Analytics for Post graduate students of Computer Science and Engineering and Information Technology. The syllabus is framed in consultation with experts from the leading software industries like Virtusa and Infosys.
 - For students of 2015 batch of Computer Science and Engineering a new course “Basic Computing Lab” has been introduced under the category Choice Based Credit System which covers all the fundamental components of the computer science programme.
- The mechanism followed in the curriculum design process leads the university to launch the first wave of our Global Trends Program such as M.E., (Embedded Systems), M.Tech., (Nano-Technology), M.Arch (Building Management), M.Arch (Sustainable Architecture), M.Tech. (Green Engineering and Technology), M.Tech. (Wind Energy Technology) at higher education side.

- The university instills the national development inclination among the UG students through the environmental studies. Environmental Engineering is a course offered as a General Interest Course to the first year students of all the U.G. Courses. Through this course the university aims at giving a social awareness and thereby one can render great service to humanity in future.

1.1.3 How are the following aspects ensured through curriculum design and development?

- **Employability**

- Knowledge transfer from the industry experts are provided to the staff and students on regular basis to equip themselves to upgrade with the emerging technologies and thereby leading to increase in employment opportunities.
- For gaining industrial experience, the students at both UG and PG level have to undergo In-plant training compulsorily in an industry during the course of study.
- Students are trained in personality development programs, international certification courses and competitive examinations at both national and international level on a continuous basis.
- Suggestions from the prospective employers and industries are considered and included in the design of curriculum.
- New courses are being introduced in the emerging technologies to the existing programmes.

- **Innovation**

- In association and collaboration with the industries, the courses that are offered currently are revised and new courses are included in the emerging technologies.
- Introduction of innovative courses like Nano Technology, Building Sciences, Green Engineering and Technology and Medical Instrumentation to cater the current needs of the industry.

- Adoption of Government schools in rural areas in and around the University for knowledge transfer and technical assistance.
- Adoption of villages are carried and assistance is provided in all aspects of the requirements of the village.
- **Research**
 - In emerging areas of Science and Technology dedicated Research Centres are established in the University.
 - The University research contribution to the Nation is achieved by developing spatial and non-spatial database on a large scale, which caters the needs of the farming community and policy planners for the implementation of sustainable development. Furthermore the Centre for Remote Sensing and Geoinformatics, Centre for Ocean Research and Centre for Climate Change Studies involve in the coastal projects on shore line protection, monitoring of high tide level and low tide level that attempts to link the sea rise level due to global pollution and climate change.
 - Sathyabama Satellite in association with Indian Space Research Organization (ISRO) was successfully launched in June 2016.
 - All the students of UG and PG programmes have to undergo a project during their final year course of study by associating themselves with senior faculty and scientists of Research centres ,which lead the students to gain significant research experience.
 - Students and Staff are motivated to publish their contributions in research in referred journals and also to file patents if it leads to a product based work.

1.1.4 To what extent does the university use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the university been instrumental in leading any curricular reform which has created a national impact?

- The Board of Studies, Academic Council ensures the courses offered under each programme include both the fundamental courses and emerging topics in the respective field of study. The courses offered by the University are on par with the Institutes of National Importance and other top ranking universities in National and at International level.
- New courses introduced are based on the feedback and input from the industry experts, academic experts and from the students.
- For the benefit of the society especially in rural regions, a joint venture with Indian Space Research Organization (ISRO) offers course in the areas of tele-education, tele-medicine, e-Governance, Village information etc. through the Village Resource Centre's (VRCs) across the country.

1.1.5 Does the university interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the university benefitted through interactions with the stakeholders?

- Board of Study Members constituted for each School is based on the recommendations of the UGC Regulation. The committee comprises of both Academic and Industry experts apart from the Dean of respective School, Head of the Departments, and Senior Professors of the department. The number of external experts based on their expertise vary for each school. To cite, for School of Electrical and Electronics Engineering experts from power sector, instrumentation and control engineering, telecommunication sector are part of the committee. In case of School of Mechanical Engineering

experts from Aeronautical sector, Thermal Engineering and Metallurgy specialists are drawn as members of the Board of Study.

- Input from Research and Development organizations are given higher priority for formulating the courses.
- Feedback from Faculty, Industry, Employers, Alumni and Students are considered while designing the course curriculum.

1.1.6 Give details of how the university facilitates the introduction of new programmes of studies in its affiliated colleges.

Not Applicable

1.1.7 Does the university encourage its colleges to provide additional skill-oriented programmes relevant to regional needs? Cite instances (not applicable for unitary universities).

Not Applicable

1.2 Academic Feasibility

- **Furnish the Inventory for the following:**

Programmes offered On campus

S. No	Course and Branch
School of Computing	
1	B.E. - Computer Science and Engineering
2	M.E. - Computer Science and Engineering
3	B.Tech - Information Technology
4	M.Tech – Information Technology
School of Electronics and Electrical Engineering	
1	B.E. – Electrical and Electronics Engineering
2	B.E. – Electronics and Communication Engineering

3	B.E. – Electronics and Instrumentation Engineering
4	B.E. – Electronics and Control Engineering
5	B.E. – Electronics and Telecommunication Engineering
6	M.E. – Power Electronics
7	M.E. – Powersystem Engineering
8	M.Tech - Nano Technology
9	M.Tech – VLSI Design
10	M.E - Embedded Systems
11	M.E - Electronics and Control
12	M.E - Applied Electronics
13	M.Tech – Wind Energy Technology
14	M.Tech – Nuclear Science and Engineering
15	M.E – Communication Systems
16	M.Tech - Robotics and Artificial Intelligence
School of Mechanical Engineering	
1	B.E. – Mechanical Engineering
2	B.E. – Mechanical and Production Engineering
3	B.E - Automobile Engineering
4	B.E – Aeronautical Engineering
5	M.E- Computer Aided Design
6	M.E- Thermal Engineering
7	M.E – Aeronautical Engineering
8	M.E. – Metallurgical and Material Science Engineering
9	M.Tech – Naval Engineering
10	M.Tech – Engineering Design

School of Building and Environment	
1	B.E. – Civil Engineering
2	B.Arch – Bachelor of Architecture
3	M.E. – Structural Engineering
4	M.Tech – Remote Sensing and Geo Informatics
5	M.Arch. – Building Management
6	M.Arch. – Sustainable Architecture
School of Bio and Chemical Engineering	
1	B.Tech . - Biotechnology
2	B.Tech. - Bioinformatics
3	B.Tech. – Biomedical Engineering
4	B.Tech – Chemical Engineering
5	M.Tech - Biotechnology
6	M.Tech - Bioinformatics
7	M.Tech – Medical Instrumentation
8	M.Tech – Marine Biotechnology
9	M.E. – Environmental Engineering
10	M.Tech – Green Engineering and Technology
11	M.Tech - Energy Engineering
12	M.Sc. – Biotechnology
13	M.Sc. - Energy Science
School of Business Administration	
1	M.B.A. – Master of Business Administration
2	B.Com – Bachelor of Commerce

School of Science and Humanities	
1	M.Sc. - Mathematics
2	M.Sc. - Physics
3	M.Sc. - Chemistry
4	M.Sc. – Actuarial Science
5	B.Sc. – Visual Communication
6	M.A. – English Literature
7	M.Sc. – Visual Communication
School of Medicine	
1	Bachelor of Dental Surgery (BDS)
Research	
1	M.Phil Bio Technology
2	M.Phil. – Chemistry
3	M.Phil. – Mathematics
4	M.Tech (By Research)
5	Ph.D

- **Overseas programmes offered on campus**

Not Applicable

- **Programmes available for colleges to choose from**

Not Applicable

1.2.1 Give details on following provisions with reference to academic flexibility

- a. **Core / Elective Options** – The courses offered by the University comprises of both core and elective subjects. Each and every programme is designed with both core courses and a minimum of 20 to 40 elective courses. Every student can choose the elective of their choice. Apart from this vertical and horizontal mobility while selecting an elective is also in-place. A particular

branch of student can choose an elective from other branch within the school (horizontal) and also from other school (vertical) of their choice of interest.

- b. **Enrichment courses** – All courses of the University have the flexibility to offer enrichment courses. The enrichment courses are offered through programmes such as soft skill, personality development, skill development courses, industrial visits, inplant training, workshops, symposiums, conferences, etc.,
- c. **Courses offered in modular form** – All the courses offered are framed in modular form. Subject contents are categorized into five units. Each unit contains related subject matter and in simplified form.
- d. **Credit accumulation and transfer facility** – Students from other Universities / Institutions are permitted to transfer to Sathyabama University. For this purpose, a credit transfer system is in place. For this purpose, a committee will be formed to decide on the additional courses to be taken and also to decide upon the credit transfers.
- e. **Lateral and vertical mobility within and across programmes, courses and disciplines** – The University provides the flexibility to move from one discipline to another discipline in the beginning of the second year. The students can choose the elective courses of their choice within the courses offered by the respective School. However, this is subjected to the availability of seats and performance of the student.
- f. **Choice Based Credit System** – The University offers the students to undertake the courses of their choice (equivalent courses has been identified and offered). The Choice Based Credit System offers an interdisciplinary approach in the learning process for the student community. The system

provides an opportunity for the student to explore avenues to learn beyond the core subjects and flexibility of choosing the subjects in inter-disciplinary and intra-disciplinary courses.

- g. **University Electives** – The Regulation 2015 provides an opportunity for the students to choose elective across disciplines that are offered by the University in that semester. For example a Computer Science and Engineering student can choose the elective from any other branch of Engineering.
- h. **Professional Training** –Credits have been introduced for the internship programs and have been mandate and the same have to be carried during their even semester (twice for UG and once for PG programme). This creates an awareness and enable him to gain experience in their relevant field and the same can be extended as their project work during their final semester.
- i. **Projects** - Every student is to undergo a project during the course of study and is carried out during their final year. The project is to be carried out in two phases during their final year of study. Most of the students in both UG and PG carry out their project work by utilizing the existing infrastructure available with the department and in the research centers. In addition, real time and field based projects are also carried out by the students in association with various industries like Infosys, TCS, Wipro etc., and Government Research and Development Organizations IGCAR, DRDO, ISRO etc.,
- j. **Withdrawal** – A candidate may, for valid reasons be granted permission to withdraw from appearing for the examination in any course or courses in any one of the semester examination during the entire duration of the degree programme.

- k. **Authorised Break of Study** – The candidate is granted only once during the full duration of study, for valid reasons for a maximum of one year during the entire period of study of the degree programme.
- l. **Non Credit Courses** - Every student has the opportunity to enroll in any of the Non Credit Courses such as National Cadet Corps (NCC) National Service Scheme (NSS), Youth Red Cross (YRC), Sports and Professional Clubs during the programme

Apart from the above mentioned academic flexibility, every student is given an opportunity of additional four semester / two years so as to complete their courses and get their degree. However, the class factor does not arise for those who cross the specified duration of the course.

1.2.2 Does the university have an explicit policy and strategy for attracting international students?

Memorandum of Understanding with the International Universities is being signed to pursue research and training.

1.2.3 Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.

All the Programmes are open and available for International students.

1.2.4 Does the university facilitate dual degree and twinning programmes? If yes, give details.

University offers Dual Degree Programme in Computer Science and Engineering for the students from other branches of Engineering. In this programme, student needs to undergo an additional three courses every semester apart from the regular courses and working hours. An additional year of study gives them the benefit of acquiring another Degree.

1.2.5 Does the university offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?

All the programs offered by the University are self financed programs only.

a. Admission Process:

Under Graduate Programs: Based on the performance of the candidate in the All India Common Entrance Exam conducted every year for all the UG Courses by the University and other qualifying examinations.

Post Graduate Programs: Scores obtained from eligibility Exams conducted at all India level and at State level.

b. Fees Structure: Based on the norms as specified by UGC.

c. Teacher Qualification and Salary: Qualification and Salary are as per UGC norms.

1.2.6 Does the university provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes,' give operational details.

No. University is not offering any course through distance education.

1.2.7 a. Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes?

University follows Semester system for all the Programmes except, Bachelor of Dental Surgery. Choice Based Credit System is followed for all the programmes offered by the University.

b. What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?

Not Applicable. Sathyabama University is a unitary University.

1.2.8 What percentage of programmes offered by the university follow:

- a. Annual System 6.25%
- b. Semester System 93.75%
- c. Trimester System NIL

1.2.9 How does the university promote inter-disciplinary programmes? Name a few programmes and comment on their outcome.

The University promotes inter-disciplinary programmes by framing the syllabus in such a way, that the courses taught by other disciplines will expose students to excel in allied areas also. Few of the inter-disciplinary programmes are,

- M.Tech Remote Sensing and Geo Informatics
- M.Tech Medical Instrumentation
- M.Tech Embedded Systems
- M.Tech Nano Technology
- M.Tech Green Engineering and Technology
- M.Tech Materials Science and Engineering
- M.Tech Energy Engineering
- M.Arch Building Management
- M.Tech Robotics and Artificial Intelligence
- B.Tech Bio Medical Engineering
- B.Tech Bio-Informatics
- M.Sc Actuarial Science
- M.Sc Energy Science

The introduction of inter-disciplinary programmes reflects in students skill enhancement, increase in placement and entrepreneurial skills.

1.3 Curriculum Enrichment

1.3.1 How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/or job oriented / knowledge intensive and meeting the emerging needs of students and other stakeholders?

- Exhaustive syllabus revision is carried out once in every three years for all the UG and PG programs. The formulated syllabus is approved by the Board of Studies committee and further ratified by the academic council and by the members of the Board of Management.
- However, to meet the trends of the industry, the revision is done in the syllabi with the approval from the Board of Studies.
- Mobile application development is one such elective offered to the Computer Science / Information Technology graduates of the University in association with “VIRTUSA”, a leading software company. In a similar manner, courses in association with “INFOSYS” are also offered.
- Semester Abroad Program is offered for all Engineering programs. The students are permitted to undergo one full semester at University level and the credits earned are transferred.
- Interdisciplinary courses are available in each discipline. To cite, Applications of Artificial Intelligence is offered to the Department of Mechanical Engineering.
- Interdisciplinary projects have been carried out and are successfully completed. To name a few, Sathyabama Nano Satellite, Disabled Friendly Four Wheeler, GPS enabled Cloud Voice Activated 108 Ambulance etc.,

- Certification courses offered by International Bodies like Microsoft, Oracle, CISCO, CREO, Lab View, QMAX, HACCP, GLP, IPR etc., were offered to mould our students to compete at global level.
- Coaching classes for competitive examination are offered.
- Coaching to Civil Services Examination is offered to all the interested students. The students are offered training to IAS at free of cost through JEPPIAAR IAS Academy.
- Student Development Cell organizes several club activities and all the students of the University are member of atleast one club.
- In the regulations 2015, the following components were introduced:
 - Choice Based Credit System
 - Mandate Internships Programmes
 - University (Open) Electives
 - Withdrawal from Examinations
 - Authorised Break of Study
 - Non-Credit Courses

1.3.1 During the last four years, how many new programmes at UG and PG levels were introduced? Give details.

In the last 4 years, nineteen new programs have been introduced at PG level.

General

- M.Phil Mathematics
- M.Phil Chemistry
- M.Tech Engineering Design

Inter-disciplinary

- M.Tech Remote Sensing and Geo Informatics
- M.Tech Medical Instrumentation
- M.Tech Embedded Systems
- M.Tech Nano Technology
- M.Tech Green Engineering and Technology
- M.Arch Building Management
- M.Tech Robotics and Artificial Intelligence
- M.Tech Bio Medical Instrumentation
- M.Tech Bio-Informatics
- M.Sc Actuarial Science

Programmes in Emerging Areas

- M.Tech Nuclear Science and Engineering
- M.Tech Green Engineering and Technology
- M.Tech Nano Technology
- M.Tech Remote Sensing and Geo Informatics
- M.E Metallurgical and Material Science Engineering
- M.Tech Materials Science and Engineering
- M.Tech Wind Energy Technology
- M.Tech Marine Biotechnology

1.3.2 What are the strategies adopted for revision of the existing programmes? What percentage of courses underwent a syllabus revision?

- The principle objective of restructuring the syllabus is to enhance the quality of the individual learner by the way of education that leads to the overall development in terms of technology and also of national importance.
- The contents of the courses are carefully chosen intending to give the learner exposure to the contemporary world and the needs that the present job maker expects from him/her.

- The students can share their suggestions on the course contents of the respective subject and on the teaching methodology. The feedback of each and every course is obtained through a set of questionnaire. The feedback from the teacher is also obtained to provide their critical opinion based on their experience while handling the course.
- The external examiners of the University Central Valuation are also requested to offer their remarks. The views of the parents are also received during parent-teacher meeting.
- The courses are evaluated by the University nominees, industrial and academic experts for enhancing the quality of syllabus. The opinions and suggestions are considered for discussion at the subsequent Board of Studies meet. By considering the suggestions, modifications to the existing courses and introduction of new courses are formulated.
- A complete revision of syllabus was carried out in the year 2015 for all the offered programmes.

1.3.3 What are the value-added courses offered by the university and how does the university ensure that all students have access to them?

- All courses in the university under various Schools of Engineering ensure social citizenship role and value based education.
- Short term program, skill development courses, workshops, subject forums, clubs, association, activities of NSS, NCC, YRC, other extension development activities ensure value based education and social citizenship roles.
- The students of the entire School compulsorily undergo a course on Environmental Science.

- Principles of Management and Professional Ethics is offered to cultivate the learners to ensure that they understand the roles and responsibilities in the work place and as a citizen.

1.3.4 Has the university introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?

- Certificate course in Lab Technician, Certificate course in Nursing, Plumbing, Electrician are some of the courses that are aimed at developing the skills of the students and these course are conducted in association with ISRO
- In order to make the students fit into the industrial requirements, separate career oriented training like Electronics Advanced Testing is introduced in association with “QMax” Test Equipments Pvt. Ltd.
- Courses offered through Village Resource Centres are aimed at improving the employability for the unemployed rural youth.
- Students are encouraged to study the material and the developments available on the Internet. A weekly class is being organized to share the latest developments and innovations. Apart from this, student chapters like IEEE, ISOI, ISA, CSI, IIFE, SAE, IICHe, IIA, INTACH, IIID,ITPI,COA,IRS,AIUD,CONFLUENCE makes the platform for the students to equip themselves to meet the global demands. Our University has unique distinction of having a maximum number of student enrolments in IEEE branch in Asia pacific region.
- Teaching of foreign languages like Japanese, German, French are offered.
- Coaching for competitive exams like GATE, IELTS, GRE, TOEFL, CAT etc., are also offered by the University.
- JEPPIAAR IAS Academy is initiated for coaching the students to excel in Civil Services Examination and is offered at free of cost.

1.4 Feedback System

1.4.1 Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

At the end of every semester, feedback for every course is obtained from alumni, students, staff, and external examiners in a pre-formulated questionnaire. Based on the suggestions and comments from the feedback, syllabus revision is considered in the subsequent years after obtaining approval from Board of Studies Committee.

1.4.2 Does the university elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact.

The University is having association and understanding with renowned Universities / Institutes both in India and Abroad. While updating the curricula of the courses, the inputs, procedures of these institutes are taken into consideration.

Suggestions from the eminent personalities who visit the campus during conference/workshops/seminars are also considered during the syllabus revision process.

1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.

Not Applicable.

1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the university in ensuring the effective development of the curricula?

The measures taken by the University for ensuring high quality standards in the development of curricula:

- Suggestions and feedback obtained from Industrial Experts, Experts from other Institutions, Faculty, Students and Alumni.
- Industrial Visits, In-Plant Training, Workshops, Seminars, Guest Lectures are part of the curriculum in most of the courses.
- The curriculum designed is based on the need of the hour at both national and international level.
- The School of the University are regularly updated in their field of interest by way of attending workshops / seminars / conferences.
- Every course involves practical exposure in the laboratory and this exposure is in line with Theory, In-plant training, Projects, Industrial visits.
- Syllabus revision is carried out at regular intervals.
- Board of Studies meeting conducted at least twice in a year for effective revision of syllabus.

Any other information regarding Curricular Aspects which the university would like to include.

- Eminent personalities are invited to motivate students through power series lectures.
- MoU's with leading MNC's, enable the student a global competitor.
- R and D activities in association with various government agencies, helps the University to focus on the national requirements in the latest trends in the field of Science and Technology.

For Accreditation – Cycle : 2 Re-Assessment

- Comprehensive Revision of syllabus is done once in every three years for all UG and PG programs. Major revision of syllabus was carried out in the year 2015. Syllabus revision is done in the inferential period as and when necessary.
- Regulations 2015 provides an opportunity for the students to choose elective across disciplines that are offered by the University in that semester. For example a Computer Science and Engineering student can choose the elective from any other branch of Engineering.
- Interdisciplinary approach is followed in curriculum, research projects, professional training and also in offering enrichment courses. Most of the PG programmes offered are interdisciplinary in nature.
- Feedback system has been formulated and the same is collected through a pre-designed and well structured questionnaire. Collected feedbacks are analyzed and suitable actions are initiated for syllabus revision, to facilitate the Faculty members to update themselves in latest technology by undergoing training programmes that are organized both internally and externally.
- Each Course is designed with core papers and a minimum of 20 - 40 electives. Each student has the option of choosing electives of his/her choice in the last three semesters of their study. Apart from this, a horizontal and vertical mobility while choosing electives is also implemented. This means that a particular branch of student can choose elective from some other branch from the same school or from any other school based on the course of interest.

PROGRESS AT A GLANCE

Progress towards Post Graduate and Research Programmes

As on date : 44
(2 Research & 2 PG programmes)

(Of which 13 courses are unique in nature and are being offered in association with Industry / Research and Development Organizations)

Introduction of above courses would not have been possible without becoming University.

CRITERION II

TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1.1 How does the university ensure publicity and transparency in the admission process?

a. Publicity

- An admission to various courses offered by the University is based on All India Entrance Examination “Sathyabama University B.E. / B.Tech. / B.Arch. / BDS Entrance Examination”.
- A valid NATA score is essential for Architecture Course.
- AIEEE, JEE, CET scores are also eligible for admission to various courses.
- The Entrance Examination for Under Graduate Courses is being conducted in the third Sunday of April, every year.
- Entrance examination is being conducted in 45 major cities all over India.
- Admission to PG courses are based on the competitive examinations conducted at All India and State level like GATE, TANCET, CAT etc.,
- Admissions to the Research courses like Ph.D. and M.Tech (By Research) are being carried out twice in a year.

b. Transparency

- Advertisement is given in leading News papers, News channels and Web based advertisement to the admission for all the courses.

2.1.2 Explain in detail the process of admission put in place by the university.

List the criteria for admission:

a. UG Programs: B.E/B.Tech/B.Arch/B.DS

- Advertisement through leading National News papers, media, Web based advertisement and University Web site.
- Conducting the Entrance Examination.
- Rank list is prepared based on the marks secured in the Entrance Examination.
- Rank (Merit) list is published in the University Web site and also intimated to the candidates.
- Centralized Counselling system is being followed for admission to various courses offered by the University.
- The details of counselling dates, seats allotted for counselling and the left over seats at the end of each day of the counselling is being published in the University Web site.
- Admission to various courses of the University is based on the eligibility criteria fixed by the Academic Council.
- The General rule followed for admission courses is:
 - a minimum of 60% marks both in 10th and 12th Standard.
 - Not be more than one year gap between the passing of one course and the year of joining the University.
- Based on NATA scores, candidates are admitted to Architecture course.

- The scores secured at AIEEE, JEE, CET are also considered for admission to various courses offered by the University.
- Admission is based on the rank list through counselling.
- Students who secure top 25 Ranks were given full scholarship for the entire course.

b. PG Programs: (M.E./ M.Tech / M.Arch)

- Admission to PG courses is based on the scores secured at competitive examinations conducted by All India and State level like GATE, TANCET, CAT etc
- Based on the rank list, the admissions are done through counselling.

c. Research Programs: (Ph.D / M.Tech (By Research))

- Admission for the Research program is being done on the basis of screening followed by personal presentation cum interview.
- Each candidate is requested to submit the abstract of the proposed area of Research. This is being scrutinized by a panel of experts.
- Based on the suggestions by the Panel, the candidate is called for the personal presentation and interview.
- Successful candidates will be admitted to the course as per the University Rules and Regulations.

2.1.3 Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.

Not Applicable

2.1.4 Does the university have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the Improvement of the process?

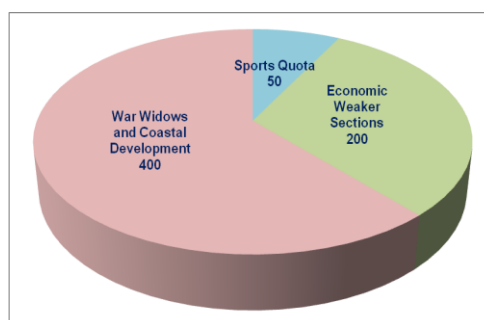
- Admission Review meeting is conducted in the month of November every year.
- Evaluation of the admission procedure of the current academic year and its evaluation are being done.
- Based on the evaluation process, revisions on the admission process are being discussed and accepted suggestions will be put forth for implementation in the successive academic year.
- Suggestions like increase or decrease in the seats of Engineering branches are also discussed by the review committee.
 - Based on the rise of demand in the core engineering courses like Computer Science, Mechanical, Electrical and Electronics Engineering, the number of seats has been increased.
 - As there was steady decline for the Chemical Engineering course, it is decided to decrease the number of seats in those branches.

2.1.5 What are the strategies adopted to increase / improve access for students belonging to the following categories:

As per the rules and regulations of the Government, the reservation policy is being followed in the University admission process. The University facilitates:

- **SC/ST**
 - Scholarships from Government Agencies
 - Education loan from Banks
 - Education loan through Non-Governmental Organizations.

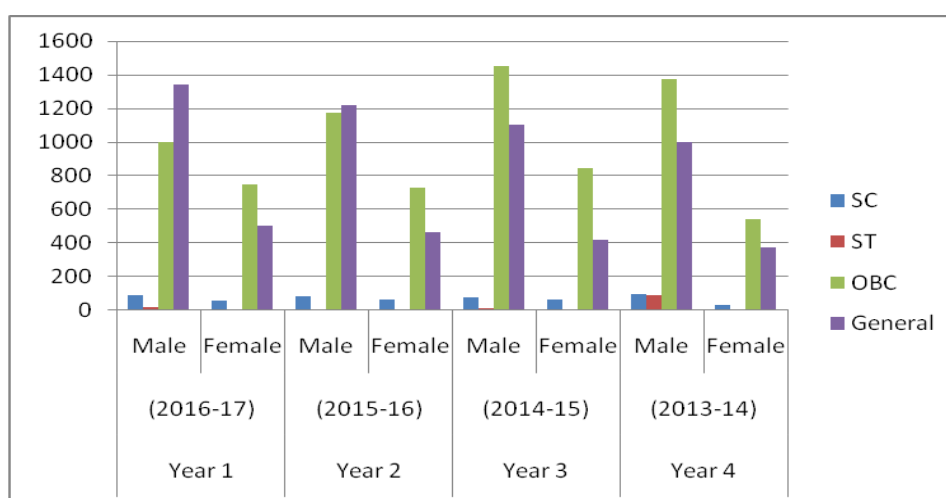
- **OBC**
 - Quota as per Government norms.
- **Women**
 - Quota as per Government norms.
- **Persons with varied disabilities**
 - Physically challenged students are admitted as per Government norms.
 - Visually challenged students are given with application forms which they can fill (Braille script) and are admitted to Bachelor of Education Course
- **Economically weaker sections**
 - Free seats are being given to the students with poor financial background. Each year 200 such students are being admitted at the Under Graduate and Post Graduate level.
 - Concessional Fee admissions are given for the children of War Widows children from Coastal peace Development. Every year 400 such students are given admission.
- **Outstanding achievers in sports and other extracurricular activities**
 - Eminent sports persons are offered with free Education, Free boarding and free lodging and 50 seats are allocated exclusively for sports students.
 - Sports students are encouraged with a flexible internal examination schedule. The internal examinations alone are scheduled as per the availability of students.



Free Seats/Concession Seats Allotment

2.1.6 Number of students admitted in university departments in the last four academic years:

Categories	Year 1 (2016-17)		Year 2 (2015-16)		Year 3 (2014-15)		Year 4 (2013-14)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	90	58	82	62	78	63	96	34
ST	17	07	07	05	08	04	90	04
OBC	1002	747	1173	729	1451	845	1377	540
General	1344	503	1217	464	1101	419	1001	373



Students Admission (Male/Female)

2.1.7 Has the university conducted any analysis of demand ratio for the various programmes of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.

- Steady increase in the demand ratio for the Under Graduate courses where as the demand for the post graduate courses is in the steady decline.
- Even in the Under Graduate courses, the demand ratio for the Bio Engineering courses is reduced to single digit where as the demand for core engineering has gone beyond 45.
- However, the average numbers, i.e., ratio of applications is seen a steady rise for Under Graduate Courses.
- The details of Demand ratio for the UG and PG courses are given in the following Table.

Programmes	Number of applications	Number of students admitted	Demand Ratio
UG	2,31,205	3,557	1:65
PG	2504	313	1:8
M.Phil.	06	06	1:1
M.Tech (By Research)	10	04	1:2
Ph.D.	389	170	1:2
Certificate	300	100	1:3

2.1.8 Were any programmes discontinued / staggered by the University in the last four years? If yes, please specify the reasons.

MCA

2.2 Catering to Student Diversity

2.2.1 Does the university organize orientation / induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using feedback in subsequent years.

Orientation programme for the fresher's is praise worthy activity that is undertaken by the University. A schedule of orientation for fresher's is prepared for a period of one week. The notable features of this orientation programme are:

- University Campus and its facilities through virtual as well as real campus tour
- University laboratory facility – Faculty wise visits by all the students to explore the total lab facilities available.
- Presentation of facilities and projects, Research activities and Centre for Research to aware of the present areas of research the university has undertaken.
- Psychological counselling sessions exposing them to various stress levels together with stress management exercises.
- Detailed exposure to the Central and Department Library facilities, Digital Library and Bank facilities.
- Extra-curricular and Cultural activity related events conducted by the University and in search of new talents among the fresher's.
- Giving overview of the course a fresher will be undergoing and making them aware the rules, regulations, credits, and other basic information.

- A special cell Anti-Ragging Cell is established to prevent ragging on and off the campus. The fresher's are explained about the measures taken by the University to prevent ragging.

2.2.2 Does the university have a mechanism through which the “differential requirements of the student population” are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

- Each batch of students is allocated with a Year in-charge.
- Under this Year In-charge Class counsellor takes care of 20 students in each and every class. Counsellor undertakes the counselling of the allocated 20 students and the information is being analyzed.
- Trained psychological counsellors also undertake the counselling activity and thereby they identify the specific requirement which will be kept confidential.
- **To analyse the requirement pertaining to communication skill, soft skill, mathematical & logical skills a test is being conducted in the first month after joining. After evaluating, the key issues were identified and the requirements were addressed in terms of**
 - additional coaching
 - added counselling sessions
 - peer group counselling
 - communication or language coaching

The students are classified upon their skills and based on that courses are designed and conducted for their differential requirements. Students who score less in aptitude test are concentrated more on aptitude, where in others concentrated on communication, Logical & Mathematics skills and so on.

Students who excel in the test, shall be given opportunity in research project during his/her course ahead.

- **For physically challenged students, ramps are provided in all required Places. Examination halls are provided for such students in Ground floor. For visually impaired students, scribes are deputed to write examinations. Audio CDs of Lectures are provided for them to equip further.**

2.2.3 Does the university offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?

- University undertakes the various courses for the benefit of students in order maximize the versatility in gaining knowledge and also to help them to overcome the problem they face during the course of study.
- These courses are being offered after University regular timings.
- Some of the bridge courses or add-on courses are given as follows:

Sl. No	Course	Program
1	a. Computer Programming Course b. Mathematics Course	Bio Engineering Students
2	Spoken English	Non English Medium students
3	Language Coaching (French / German / Japanese)	All Courses
4	Commerce Subject	B.Com Students with non-commerce background
5	Dual Degrees	Conducted by CSE, ECE and Mechanical for other streams
6	Personality Development Courses	All Courses

7	Placement Oriented Training	All Courses
8	Career Development Programs	All Courses
9	Certification Courses a. CISCO b. CAD	a. CSE/IT/MCA b. MECH/PROD/AUTO

2.2.4 Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?

Yes. All the programmes and courses are opened to the students from the disadvantaged communities. The University provides special classes for the slow learners. These classes are being conducted after the regular hours of the University. Question bank system, review of old question papers is the integral part of enhancing the learning skills of slow learners.

2.2.5 How does the university identify and respond to the learning needs of advanced learners?

- Advanced learners services are utilized in the research projects undertaken by the University.
- Encouraging the students to publish the papers, development of models, participation in the Technical events, competitions, sponsoring the meritorious students, utilizing these students for the purpose of societal development and societal responsibility are the major activities undertaken by the University to utilize the best among the student fraternity.
- Involvement of Students in the Nano-satellite project is one of the examples to indicate the utilization of advanced learners service.

2.3 Teaching – Learning Process

2.3.1 How does the university plan and organise the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?

To plan and serve the students, staff, and University community, the university develops its calendar well in advance. The beginning and ending dates for the University academic year, as well the holidays and days allotted for Professional development programs are well planned in the calendar.

Academic Calendar:

- A Semester has to accommodate 90 working days.
- Academic courses are scheduled based on the Theory / Tutorial hours / Credits allotted for each subject as per the Syllabus.
- The calendar is discussed in a meeting with the Vice-Chancellor, Directors, Registrar, Controller of Examination, Deans and Heads of the Department and approved well in advance for its implementation.
- The commencement and ending of Semester Examinations are mentioned - November and December for Odd Semester Examinations, April and May for Even Semester Examinations.
- Organizing of International conferences is planned in the month of November & December which is printed in the calendar.
- Cultural programs, Sports, Fem Fest (A festival for girls), Achievers Day, Convocation day, etc., are all finalized and intimated through the calendar.
- Dates for conduct of Continuous Internal Assessment (CIA) Test, assignment submission dates are prefixed and indicated.

- The complete schedule for the forthcoming academic year is available for ready reference on the University Web site.
- This calendar is prepared tentatively by the HOD's and finalized by the Vice-chancellor, Directors, Registrar, Deans, Controller of Examination in the final meeting.



University Academic Calendar

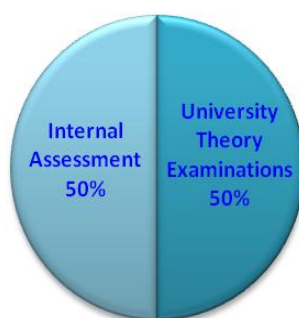
Teaching plan

- Allotment of faculty for each course by Subject Coordinator
- Workload based on UGC norms
- Conduct of classes based on Credits
- Time Table Preparation
- Planning of Guest Lectures / Workshops / Seminars / Industrial Visits
- Continuous Internal Assessment Examinations.

To evaluate the performance of the students of both UG and PG courses, two continuous internal assessments are being conducted for each semester. The evaluation blueprint is 50% of the mark which is awarded

based on the performance in the assessment examinations and 50% based on the end semester examination for both theory subjects and Laboratories. In order to have a continuous evaluation of every student the total internal marks are divided and given increased weightage for assessment test and percentage of attendance in the course of study.

Performance Evaluation



2.3.2 Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

Yes. Each subject is assigned with a Subject Coordinator. Before the commencement of the academic session, the Subject Coordinator conducts the meeting of the staff members who teach the same subject in the forth coming semester. A Detailed Plan of action including lesson plan, syllabi for internal assessment examinations, lab schedules, assignment details are prepared and is being circulated among the faculty who teach the same subject. Continuous monitoring is being done by the Subject Coordinator after commencement of academic session.



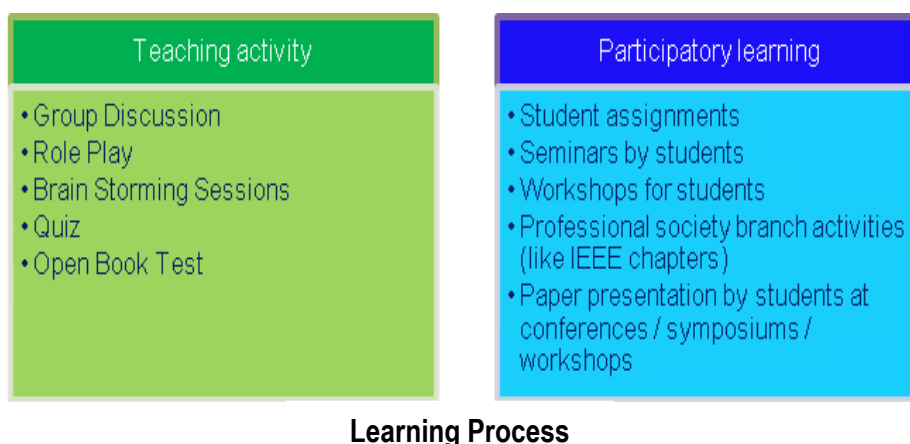
Course Schedule – Subject Coordinator

2.3.3 Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.

No. The University prepares the calendar keeping all the public holidays and other events into consideration. Even if there is any deviation, sufficient leverage in the working day schedule as well as examination schedule is always maintained. This takes care of challenges arising out of any untoward happenings.

2.3.4 How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.

The learning is made student-centric by motivating the students in teaching learning process by the way of question and answer sessions.



2.3.5 What is the university’s policy on inviting experts / people of eminence to deliver lectures and/or organize seminars for students?

University has a policy of organizing Guest Lectures / Lectures from Eminent personalities in the following ways:

- Lecture by Nobel Laureate – One per year
- Endowment lecture – One per year
- Power Series Lecture – One per semester, per Faculty
- Guest Lecture - Twice, a semester – for each class
- Scientist Award Recipient Lecture – One per year
- National Seminars – One per Department per year
- International Seminars – Three per year for total University

2.3.6 Does the university formally encourage blended learning by using e-learning resources?

Yes. University provides resources to the students / staff for e-learning. The digital library at central library is equipped computers with high speed internet connection for which the students have access at free of cost. The students are exposed to e-journals, open source materials, e-books, material for project presentations etc.,

2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?

Teaching aides used are:

- Overhead Projector
- LCD projector
- Interactive board
- Web-based adaptive learning
- Course based equipments and software
- Tele education from reputed Institutions
- Audio-video based programs
- Working models

Efforts are made to maximize the use of such aids to improve the learning experience by the following means:

- Open Education Resources of a large number of courses are uploaded on the university website available free to anyone.
- Access to Malibnet, Library membership at IIT, Anna University etc.,
- University provides e-book, e-tutorials and application notes by industry such as Intel, HP and Microsoft etc to the students.
- Webinars for students on specific topics of interest is regularly conducted by Infosys
- e- Journals access facility to all faculty members.
- Membership for faculty in professional societies.
- The literature of these societies is made available to the students.
- Faculty provide online tutorials, notes, study material to the students.
- NPTEL lectures are made available to the students.
- Computers with internet facility in all departments.

- Use of multi-media projectors, overhead projectors.
- Open Source Lab.
- Use of power point presentation.
- Language laboratory

ICT enabled class rooms are available. Relevant e-educational resources like NPTEL lectures, webinars, video lectures are used as effective class room solutions.

In addition to inculcating academic excellence, University ensures the holistic development of each of our students through an effective mentoring system which includes academic counsellors and psychological counsellors. They imbibe leadership qualities ability to link their own goals, values and emotions to the growing industrial needs.

2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?

Placement officer and department Placement Co-ordinators will help in the update of core knowledge for the staff and also reflects the needs of the teaching community. Open forums like IEEE student chapter organizes regular meeting and discussions pertaining to knowledge update.

2.3.9 What steps has the university taken to orient traditional classrooms into 24x7 learning places?

- Updating the students with the e-learning methods, sharing the presentations related to the topics with the students through online.
- University Central Library works beyond normal working hours on holidays too.

- University Central Library is equipped with Wi-Fi access and digital library, it enables the students to work even after regular working hours.
- Hostels are equipped with complete Wi-Fi access.

2.3.10 Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.

- For every 20 students in a class is under the control, guidance or mentoring by a counsellor. These counsellors are the faculty members of the same department.
- All the student counsellors of a department are under the supervision of year coordinator.
- The Office of the Chief Warden and Assistant Wardens are providing personal guidance to students who reside in hostels.
- A professional counsellor gives personal and psycho-social guidance and counselling to both students and staff.

2.3.11 Were any innovative teaching approaches/ methods/ practices adopted/ put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?

Faculty members adopts enhanced teaching methodology for effective delivery of course content through

- Seminars
- Slide Presentations (through LCD / OHP)
- Audio-Visual Aids

- Lecture Videos
- Simulations
- Charts

The research centre's are equipped with state-of-the-art equipments like Audio-Visual room, OHP, LCD Projectors and other facilities are made available to the faculty.

Besides regular classroom learning and innovative teaching methods like

- Field trips
- Industrial visits
- In-service training
- Working at the Industrial units provides an experience of actual working environment.

The staff members are not only explaining the problems in the classroom but also adopt a few other conducive methods to make the students understand. A few minutes in every hour is allotted for question-answer session in which the students get their doubts cleared.

Remedial classes are conducted for weak students and slow learners outside the regular class hours or during the preparatory holidays. Weak students are also encouraged to meet the teachers in the department and to get counseling for their improvement.

The innovative methods help the students:

- For better subject knowledge
- To create innovative ideas on the subject
- To create interest on the subject
- To improve teaching-learning process

Institute awards the faculty with “**BEST TEACHER AWARD / BEST FACULTY AWARD**” every year for the outstanding and dedicative performance.

2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?

- Students are allowed to opt for a semester abroad Programme to carry out their final year project for a semester at a University which is under collaboration.
- Encouraging the participation of students in seminars, workshops, conferences, chapter conventions, Industrial visits, Guest lectures, Sponsored research projects etc keep the students and the faculty in pace.
- University sponsors / arranges such events for the students to actively participate and organize them with the guidelines from faculty members.
- The students are also encouraged to develop prototype / scientific models for exhibiting in various project exhibitions organized in both at in-house and external institutions/organizations. This will result in research outputs.
- The students are also encouraged to take short films and short term projects (both as internship at industries or in-house).

2.3.13 Does the university consider student Projects mandatory in the Learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?

- All the courses and programs have a mandatory Project preparation in the final semester of the course.
- The process project preparation is being continuously reviewed and each review is being evaluated and considered for final evaluation.
- 50% of total projects are being carried out within the University campus.
- Students from the University do real time projects with Noteworthy R& D Organisations.

2.3.14 Does the university have a well qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?

University reviews the manpower and audits availability of manpower, in the month of February every year. Based on the human resource turnover and the availability of faculty, faculty requirement is being prepared. The recruitment advertisement is given leading news papers and it is being followed by faculty recruitment depending on the requirement for various specializations.

For handling inter-disciplinary subjects, the faculty from the respective University Department is used to supplement.

2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the university for such efforts?

- Round the clock Internet access.
- Online Journals and articles access.
- Digital library facility can be availed any time by the faculty.

2.3.16 Does the university have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?

- YES, Feedback is taken periodically from the students on all the staff and feedback is also collected from alumni. In periodical meetings the outputs taken from the feedback are shared with the staff for further development.
- Systematic feedback for teacher evaluation by students at the end of each academic semester helps the University to enhance the teaching learning process. The Head of the Department is asked to give a report on the teachers at the end of the academic year. The feedback from each class

are collected in the prescribed format which includes all the necessary criteria which reflects the assessment of the faculty in aspects like, knowledge in the subject, clarifying the doubts of the students, content delivery etc, which is consolidated by the Head of the Department and a Confidential Report is prepared. The staff member is given guidance and counseling for improvement by the senior and Head of the department. If necessary, staff members are sent for training.

- Research work of the staff and students are evaluated in two different ways since it is viewed from two different angles - Academic and Sponsored research work. As far as the Academic research work is concerned, for Internal candidates, every month the teacher who is pursuing his Ph.D., give a lecture on his research work to the pre-final year, final year students and to their own faculty members of the department. For all candidates, a review meeting is organized by the University in the month of January and July of every academic year and experts from Reputed academic Institutions and Research Organizations are invited and evaluated.
- In case of sponsored research work, the Principal Investigators (Faculty) present their work to the Principal Collaborator of the Sponsoring agency, after every period of 3 or 6 months depending on the project duration. The progress report of the research work is submitted to the university as well to the sponsoring agency.

2.4 Teacher Quality

2.4.1 How does the university plan and manage its human resources to meet the changing requirements of the curriculum?

- Encourages the faculty to attend Refresher programmes, Faculty Development Programmes, training programmes and workshops.
- University organizes expert lectures, seminar, conference, workshop, summer and winter school to expose student and faculty to advance level of knowledge.
- University deputed the faculty for continuous learning programs, academic programs, conferences, Workshops etc. It takes faculty feedback of such programmes and considers the same while planning the next event.
- University organizes the paper presentation, project competitions and expert tutorials
- University has the students chapters of professional bodies like IEEE, ISTE, CSI, IETE, ISNT, ISA which organizes the events to expose the students for advanced level of technology.
- Encouragement to the faculty is given to publish paper in the refereed journals and International Conferences.

2.4.2 Furnish details of the faculty

Highest Qualification	Professors		Associate Professors		Assistant Professors		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	01	--	--	--	--	--	01
Ph.D.	51	58	33	26	44	26	238
M.Phil.	-	-	11	05	13	31	60
PG	10	2	35	40	157	189	433
UG	-	-	-	-	6	37	43
Visiting Faculty							
Ph.D.	-	-	-	-	-	-	-
PG	1	-	1	-	-	-	2
UG	-	-	-	-	4	1	5
Part-time teachers							
Ph.D.	Nil						
M.Phil.							
PG							

2.4.3 Does the university encourage diversity in its faculty recruitment? Provide the following details (department / school-wise).

Department/ School	% of faculty from the same university	% of faculty from other universities within the State	% of faculty from universities outside the State	% of Faculty from other countries
School of Computing	40.5%	57.7%	1.8%	--
School of Electrical & Electronics Engineering	55.25%	42.45%	1.3%	1%
School of Mechanical Engineering	18.24%	77.66%	4.1%	--
School of Bio & Chemical Engineering	21.25%	72.42%	6.33%	--
School of Building & Environment	10.85%	82.6%	6.55%	--
School of Business Administration	28%	69.5%	2.5%	--
School of Science and Humanities	--	94.32%	5.68%	--
School of Medicine	--	98.2%	1.8%	--

2.4.4 How does the university ensure that qualified faculty are appointed for new programmes / emerging areas of study (Biotechnology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?

An expert panel containing the subject expert, senior professors along with the H.O.D screen the experienced and talented candidates for the emerging courses and further will be sent to the management panel. In emerging areas of

engineering and technology / Science around 140 faculty members have been recruited in the last four years. Government/ R&D Organizations help was sought for these recruitments.

2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the university?

- **Dr.E.Vivekanandan**, Emeritus Scientist, Central Marine Fisheries Research Institute, Chennai
- **Dr.K.S.R.Murthy**, CSIR Emeritus Scientist, National Institute of Oceanography (NIO), Regional Centre, Vishakapatnam.
- **Prof.A.Sathya Naidu**, Emeritus Scientist, University of Alaska, USA
- **Dr. G. Krishnamoorthy**, Professor Emeritus of Civil & Environmental Engg. College of Engineering, San Diego State University, USA
- **Dr. B S Murty**, Professor , IIT Madras, India – Visiting Professor.
- **Dr. B. V. Venkatarama Reddy**, Professor & Chairman, Center for Sustainable Technologies, Indian institute of Science, Bangalore
- **Dr. Siva Aiyadurai**, Massachusetts Institute of Technology, USA - Visiting Professor
- **Dr.Mukkamala Srinivas**, New Mexico Tech., USA - Visiting Professor
- **Prof.Mukesh Doble**, Professor, Dept. of Bio Technology, IIT Madaras – Visiting Professor
- **Dr.B.Viswanathan**, Professor, Department of Chemistry, IIT Madaras- Visiting Professor

- **Dr. BVR Chowdari**, Executive Director, NUS-India Research Initiatives Office of Deputy President (Research & Technology), National University of Singapore, Singapore – Visiting Professor.
- **Prof.T.J.Pandian**, National Professor (Shanthi Swarup Bhatnagar Awardee), Madurai Kamaraj University. Madurai
- **Dr. G. Arthaaanreeswaran**, Professor, Department of Chemical Engineering, NIT, Trichy
- **Dr. R Jayavel**, Professor & Director, Centre for Nanoscience & Technology, Anna University, Chennai.
- **Dr. S. Iniyar**, Director, Institute for Energy Studies, Anna University
- **Dr.N.Rajendran**, Department of Polymer Science, University of Madras, Chennai - Adjunct Professor
- **Dr.V.Selvaraj**, Department of Chemistry, University College of Engineering, Villupuram – Adjunct Professor
- **Dr.G.Singararavelu**, Department of Zoology, Thirivalluvar University, Vellore – Adjunct Professor
- **Dr. K.S.Das Gupta**, Director, IIST, ISRO, Thiruvananthapuram
- **Dr.A.Senthilkumar** Director and Scientist/Engineer 'H' Indian Institute of Remote Sensing, Dehradun
- **Dr.D.V.A.Raghava Murthy**, Director , EOS, ISRO Hq, Bangalore
- **Dr. M.N. Namboothiripad**, Group Director , CEAG / AVN, Scientist H, VSSC, Trivandrum
- **Mr.C.D.Shridhara**, Outstanding Scientist & Former Deputy Director, ISRO Satellite Centre, Bangalore

- **Dr. Matthias Hagner**, Department of Physics, University of Konstanz, Germany
- **Dr. M.M.Nayak**, Visiting Professor, Centre for Nano Science & Engg., IISc, Bangalore
- **Dr. S. Gomathi Nayagam**, Executive Director, C-WET, Chennai

2.4.6 What policies/ systems are in place to academically recharge and rejuvenate teachers (e.g. providing research grants, study leave, nomination to national/ international conferences/ seminars, in-service training, organizing national/ international conferences etc.)?

- Participation in FDP by every faculty is made mandatory. This is at least once in 2 years for a minimum period of 15 days. The total period of FDP is considered as on-duty and the total cost incurred is being borne by University.
- Faculty members are sponsored for their participation in the International/ National conferences, seminars, workshops once in a year.
- Every department is allocated a budget to organize workshops / conferences (national and international) and invites eminent personalities from industry and academia.
- University has a provision in place for providing seed money for new research and development initiatives in emerging thrust areas of science and technology. For researchers in case of a project previously submitted to an external agency, if it is to address reviewers' comments, to improve the chance that a revised submission will be successful.

2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?

Our University faculty members have been the recipient of the various awards constituted by both national and international institutes and organizations. The list of the staff members with details of the award are shown below

S.No	Awards Received	Name of the Recipient
1	SAWA Fellowship, Wageningen University, Netherlands.	Dr. Packialakshmi.S, Department of Civil Engg
2	International Association for Urban climate (IAUC) Conference Award sponsored by the European Space Agency (ESA Yokohama, Japan). Most Valuable Faculty Award Awarded the ICUC8 Bursary Support at the 8th International Conference on Urban Climate – ICUC8 and 10th Symposium on the Urban Environment, Dublin, Ireland, 6-10th August 2012.	Dr. Lilly Rose A Department of Architecture
3	Best Architectural Thesis award 2012 in Tamilnadu for Jenish Jestus by IIA Tamilnadu Chapter. Best Architectural paper award in Dec 2012. Research paper titled “Evaluation of Imageability of a City and the Development Regulations formulated as part of the Master Plan – a Case of Chennai, Tamilnadu Honored by the Vellala Community of Kanyakumari District for the first lady receiving a doctorate degree in the field of Architecture..	Dr. Jothilakshmy. N Department of Architecture

4	Third Place , CLRI, Jan 2009, COILS(Challenges & Opportunities in Leather society)	Dr. Valli Nachiyar. Department of Biotechnology
5	Prof.Edathil Vijayan Award,Society for Biotechnology, .	Dr.Jayashree Nellore Department of Biotechnology
7	T.P. Moolayil memorial gold medal ,St.Berchman's college, Changanachery-1991. T.P.Moolayil memorial gold medal for securing highest mark for B.Sc. SRF, Council for Scientific and Industrial Research(CSIR), Govt. of India -April 2000 - Senior Research Fellowship (SRF)	Mr. J. V. Reji, Department of Bio technology
8	BOYSCAST Fellowship DST, Govt. of India, Post doc in Germany	Dr. Masilamani Selvam, Department of Bio Tech
9	Junior Scientist, Indian Association of Biomedical Scientist (IABMS, 2007). Chennai, Tamil Nadu, India.	Dr. S. Nandagopal, Department of Bio Tech
10	Young scientist Award in the academic year 2011- 12 Department of science and Technology, (DST),India	Dr. S. Karthick Raja Department of Bio Tech
11	Agasthiar award, Indian Association Of Biomedical Sciences MABMS, Indian Association Of Biomedical Sciences,	Dr. Antony V. Samrot, Department of Bio Tech
12	BRFST has accorded grade A+ to the funded project on "Design of single pixel camera"	Dr.E.Logashanmugam, Department of ECE.
13	BARC, Best Project award May 2008.	Dr. B.Sheela Rani Vice- Chancellor
14	IET 2011 Best Research Award for best research paper, IET UK-MGR University.	Dr. S. Anuradha Dept of Chem. Engg.
15	ANNA AWARD, Govt. of Tamilnadu for best Service in PWD	K. Santhanam, Scientist Centre for Water research

16	Young scientist award" Indian association of applied microbiology	Dr.M.Radhakrishnan Centre for Drug Discovery
17	Anand Rao Memorial Award Association of Applied Microbiologists Periyar Univ.,	
18	IAAM Life time achievement award Swami Vivekananda award.-Indian Oriental Heritage, Kolkata	Dr.Vanaja Kumar, Centre for Drug Discovery
19	ICMR post doctoral fellowship 2011-2013 (UK)	Dr.Jerrine Joseph, Centre for Drug Discovery
20	ANNA AWARD Govt. of Tamilnadu for Best Service in PWD	Dr. K. Venugopal Centre for Water research
21	Four Best paper awards at Oxford Instruments Plasma Technology SEM Micrograph Competition held in UK in 2014	Centre for Nanoscience& Nano Tech

2.4.8 How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?

Academic Staff Development Programmes	Number of faculty
Refresher courses	178
HRD programmes	67
Orientation programmes	149
Staff training conducted by the university	323
Staff training conducted by other institutions	383
Summer / Winter schools, workshops, etc.	736

2.4.9 What percentage of the faculty has

- * been invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies? **15%**
- * participated in external Workshops / Seminars / Conferences recognized by national / international professional bodies? **70%**
- * presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies? **70%**
- * teaching experience in other universities / national institutions and other institutions? **65%**
- * Industrial engagement? **50%**
- * International experience in teaching? **10%**

2.4.10 How often does the university organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching learning process?

University has introduced Absolute Credit based system from the academic year 2010-2011. As per the frame work of this system, fixed credit for each course is given based on the number of hours and the practical content.

Further, the University follows three tier valuation systems which is in progress. Under this system, Question paper is set by one group of examiners, where as the valuation is done by another set of examiners.

University has introduced a unique system of answer script verification by the student if the student is not satisfied in both Central valuation and revaluation. This valuation is called as Challenge Valuation. Under this valuation, answer scripts are valued in the presence of the student, where the student has the liberty of verifying the validating the marks that have been allocated to them.

University follows two tier method of syllabus revision, ie., Board of Studies for every Department and Academic Council at the University level. The initial revision and framing the syllabus is being done at the Board of studies and will be ratified by the Academic Council.

It is a periodical practice of the university to convene the Board of Studies Meeting to improve the curriculum development. Teaching and Learning methods are discussed and streamlined in the regular staff meetings at department level and also at the faculty level. Based on the training needs identified by the staff and the Head of the Department, the staffs are encouraged to attend the workshops / seminars organized by the other Institutions or by the University. Each department is constituted with a practical co-ordinator who provides inputs to the Controller of Examinations office to reform the mechanism regularly apart from the regular well established functional monitoring systems like examination cell.

2.4.11 Does the university have a mechanism to encourage

- Mobility of Faculty members to the other organizations both at the National and International level are at the stages of approvals and will be implemented within a short span of time.
- Faculty exchange programmes with national and international bodies. If yes, how have these schemes helped in enriching the quality of the faculty?

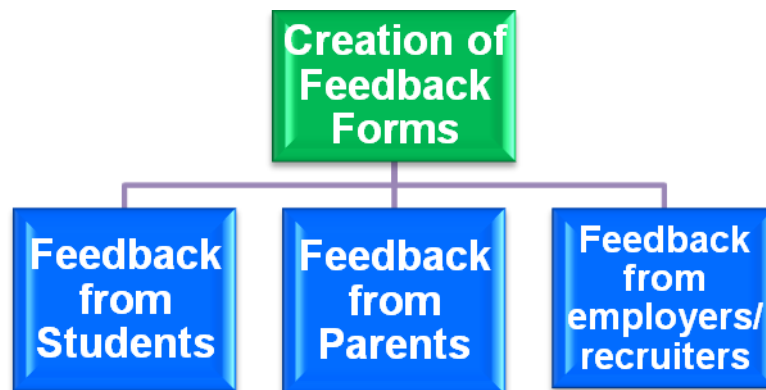
University promotes faculty exchange programmes with National and International Universities/Institutes for exchange of knowledge and expertise and also promotes the faculty to go for higher studies. These schemes help the faculty members to get opportunity to do research work under eminent academicians in International institutes and to be expert in the international research facilities.

2.5 Evaluation Process and Reforms

2.5.1 How does the university ensure that all the stakeholders are aware of the evaluation processes that are in place?

The versatility of the organization lies in making the stakeholders fully aware of the development and evaluation process in the systems; they are well a part of different developing mechanisms of the university.

Integrating Stakeholder Feedback into Curriculum Development and resulting revision is a process in which we have only a partial participation as the Curriculum is ultimately designed and developed by the Board of Studies. In that process, the faculty takes into account the views and interests of the various stakeholders connected with University education, namely, students and their parents, faculty and administrative staff, the society, the alumnae and the employer segments. The process of collecting and utilizing the feedback from our stakeholders is stated as follows:



Feedback System

2.5.2 What are the important examination reforms initiated by the university and to what extent have they been implemented in the university departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.

- Conduct of examinations during April/May for even semester and Nov/Dec for odd semester
- Tentative dates of examination dates are available in University Calendar.
- University examination dates are announced atleast a minimum of 50 days in advance.
- Question papers for all the courses (UG, PG and PhD) are obtained from external experts. Information about the question paper setters are kept confidentially.
- A novel model of answer booklet with digital number format.
- Provision of dummy numbers in the answer scripts.
- Central Valuation System by external experts for all UG and PG courses.
- Provision for revaluation system.
- An Internal Examination Cell has been formed for conducting Internal Assessment Examinations.
- The Internal marks are announced to the students well in advance before the commencement of the examination.
- Software is exclusively maintained by the Controller of Examination Office for handling all types of exam related process (like maintaining student information, subject and regulation details, university results, issue of transcripts, provisional certificates, degree certificates etc.,).
- For PhD, evaluation of thesis is done by Indian and Foreign Examiner.

2.5.3 What is the average time taken by the University for Declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the University for the publication of examination results (e.g. website, SMS, email, etc.).

The university is prompt in declaring the results. When the examination begins, the evaluation of the papers also begins immediately. The examination results are declared within 15 days of the commencement of succeeding semester. University results are updated in the website immediately so that student as well as parent can get the result without any further delay. SMS and letters are also sent to the parents after the declaration of revaluation results.

2.5.4 How does the university ensure transparency in the evaluation process? What are the rigorous features introduced by the university to ensure confidentiality?

- Question papers for all the courses are obtained from external experts.
- Provision of dummy numbers in the answer scripts.
- Central Valuation System by external experts for all UG and PG courses.
- Provision for revaluation system.
- Yes, the candidate can go for the referral valuation, if the candidate is not satisfied with even after the revaluation. During the referral valuation the candidates answer script is valued in front of the candidate by an external examiner.
- Once the Semester answer sheets are valued, before the result declaration, moderation is done towards the results. This moderation is not done for the projects and practical exams. The moderation is applicable only for the problem oriented subjects. There are two considerations for doing the moderation.
 1. Pass Percentage
 2. Feedback by the student and staff on the Question paper.

2.5.5 Does the university have an integrated examination platform for the following processes?

- Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.
- Examination process – Examination material management, logistics, etc.
- Post-examination process – Attendance capture, OMR based exam result, auto processing, generic result processing, certification, etc.

The performance of the learners is monitored with Continuous Internal Assessment (CIA) and End Semester Examination (ESE). The Continuous Assessment is for 50% which is based on tests, regularity and class participation. Students take up two internal assessments before the semester exam. The minimum pass for both UG as well as PG is 50% which includes internal and external examination marks as per our 2015 regulations.

Controller of Examination office is monitoring the continuous assessment exams, evaluation component and award of Continuous Assessment marks for each course. The continuous evaluation process existing in the university is absolutely transparent and effective. This is made possible by the question papers which are verified by the respective course coordinators and evaluation of Answer papers taking place under the supervision of course coordinators.

The students are free to raise any deviations in the evaluation process, and are being addressed immediately.

The Continuous Assessment Marks for each course is intimated to all students and parents at least one week before the commencement of end semester examinations through web portal (which can be accessed by student and parent using student login) which would facilitate the students to channelize his/her efforts to improvise grades.

As a part of the Pre-examination process, University has an exclusive set up of examination cell which itself involve in the invigilator duty assignment, examination hall management, squad duty allotment, maintaining the attendance of the students attending the particular examination, remuneration for all the works associated to this process. Whereas, the timetable generation, OMR and student list generation is done by the Controller of Examination Office.

As far as examination process is concerned, the examination material management, logistics is also taken up by the examination cell along with the proper co-ordination of the respective departments.

Post examination process is carried out by the Controller of Examination Office with high degree of precision and accuracy. The process are executed in a highly confidential manner for valuation, selection of chairman for valuation board, external experts for valuation, dummy number generation, data entry of marks and result declaration.

2.5.6 Has the university introduced any reforms in its Ph.D. Evaluation process?

The evaluation process of the progress of a research scholar is done by a panel of external experts for every six months elaborately in addition to the continuous monitoring by the guide and doctoral committee members.

2.5.7 Has the university created any provision for including the name of the college in the degree certificate?

University has not granted any affiliation to colleges.

2.5.8 What is the mechanism for redressal of grievances with reference to examinations?

The mechanism for redressal of grievances followed by COE office:

- Students can send e – mail to COE or meet in person explaining the grievance along with the Subject details.
- The COE in turn makes a verification regarding the grievance and reports back to the student.

When the results have been declared, the students can apply for re-valuation. If still not satisfied with the result even after the re-valuation, the next step is that the student can go for the referral valuation where the candidates answer script is valued in front of the candidate by an external examiner.

2.5.9 What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.

To streamline the Examination Operation : All the information regarding Examination starting from Time Table, Results, Revaluation Details, Arrear Exam details are updated in the University Website periodically.

- In order to benefit students who are not satisfied with the marks they have secured in First and Revaluation, REFERRAL VALUATION (a Third Level of Valuation) is allowed. In this, the valuation is done by the Examiner in the presence of the student. By this methodology, the transparency is brought about in the system.
- The Review system has been implemented for all final year Projects. Every student has to appear for 3 Reviews, to show the Progress of the Project.

The Panel Members for each student is chosen by the COE in consultation with the department Head. The student gets lot of inputs and this method has helped all the staff and students to do better projects.

- Internal Assessment Exams are also conducted in a Centralized manner with the setting up of Internal Exam Cell. All the students are informed about the procedure of Examination and the manner in which Internal Marks are allotted. This has brought about a Positive Change in the minds of the staff and students, since the whole system is transparent.

Sathyabama Examination Testing System (SETS) a software developed by the outside agency has modules like Internal Marks Entry, External Marks Entry, Dummy Number Generation, etc.,. This system is also performing the function of printing of the mark lists that enables to generate Degree Certificate for the eligible students. SETS is supported by Student Information System (SIS).

SETS and SIS together with the confidential data are docked in an exclusive server dedicated to the Controller of Examination (COE) office. The Certificates which are issued by the university can be verified for its originality with the security features incorporated exclusively.

2.6 Student Performance and Learning Outcomes

2.6.1 Has the university articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

The following are the graduate attributes specified by the university to ensure the attainment of these by the students:

Graduate Attributes	Achieved Through
To create a passion to pursue research	<ul style="list-style-type: none"> • Encouraging students to pursue mini research projects, publication of research findings in conferences, seminars, Journals and encouragement for the same through sponsorship of financial assistance etc. • Conducting workshops, Seminars/Lectures to enhance the research activity awareness and to motivate more students to carry out research. • Conducting competitions to highlight the research activities carried out by students. • Cash awards for Best Students Projects.
Entrepreneurship	<ul style="list-style-type: none"> • To provide assistance to aspiring student entrepreneurs through the EDC-Entrepreneurship Development Cell of the University. • To impart awareness programmes under the aegis of EDC- Entrepreneurship Development Cell, by way of workshops/Seminars/Expert Lectures.

<p>Employable / Industry ready Graduates</p>	<ul style="list-style-type: none"> • Centralized Placement cell of the university offers training by industry experts in the following areas. <ul style="list-style-type: none"> ➤ Communication skills development. ➤ Soft skills development. ➤ Technical competency development. ➤ Placement training by way of mock interviews. • Aptitude training and evaluation of performance of the students, group discussions, Panel discussions etc.,
<p>Inculcating ethical values and environmental awareness</p>	<p>By offering courses on these subjects.</p> <ul style="list-style-type: none"> • Awareness programme through guest lecture/NSS/Student club activities. • Field study and Field work through the various student clubs like NCC, NSS.

2.6.2 Does the university have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?

University monitors and ensures the achievement of learning system through:

- Periodic assessment
- Student feedback
- Monitoring of lecturing process by peers or seniors
- Identification of reasons through periodic review meetings in following avenues
 - Class Committee meetings
 - Through result analysis and discussion.
 - Fortnightly meeting by Management with the heads of the various departments for various activities.

- Corrective action through
 - Special Classes
 - Remedial teaching for the weak students.
 - Personalized coaching on holidays and also by evening stay back
 - New methods of learning.
 - Organizing make up / resource lectures to meet the student's requirements.
 - By using webinars and other e-learning material.
- By monitoring participation and achievement of students in co-curricular activities
- By evaluation of projects and innovations of the students

2.6.4 How does the university collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?

An academic audit is done (once in a six Months) by the departments to find out the difficulties and the subjects in which the failure rates are expected to be more. A department meeting is also convened to discuss the problems that are found during this audit. The audit is done through feedbacks collected from various sources, success rate, placement percentage, from the staff members, students and industrial experts on the papers handled by the staff members.

The external examiners evaluating the answer scripts give their comments on the performance of the students both question wise and in general in their reports. This forms a valuable source of data on student learning outcomes. This information is sent to the course teacher and also to the Head of Department for follow up action. The Departments and the faculty use this feedback for corrective action.

The second most important feedback is obtained from the Placement Cell. The prospective employers send Selection Committees for Campus Selection, who

give critical comments comparing our graduates with those of other Universities and also with the graduates selected in earlier years. This has proven to be a valuable source of information for assessing the success of the university.

The Graduate exit survey / students' feedback, Alumni survey and Employer Surveys help in getting feedback from all levels and have proved to be extremely useful for taking corrective measures.

University has an organized procedure to collect and analyze data on student learning outcomes; the following points are adopted by the university.

- Introduction of unit test with choices and with short descriptive and analytical answers ensures comprehensive study and undertaking of the entire course content by the students.
- Providing question bank.
- Addressing the grievances.
- Providing valued answer booklets to the students after their preparatory and internal practical.
- Encouraging students to write in the short and descriptive method.
- Minimum attendance percentage (75%) and eligible criterion is followed.
- Extra classes for slow learners and also counseling classes for weak students in the subjects to improve their performance.
- Periodic evaluation helps the improvement of learning outcome
- Communication English classes are conducted to improve their oral, written and conversational skills to help them to cope up with the subject.

2.6.5 What are the new technologies deployed by the university in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?

- Smart Class Rooms are introduced. Class rooms are equipped with projection systems (LCD/OHP) for presentation.
- Internet is made available to all the departments.
- Wi-Fi connectivity at Central Library.
- Students & Staff can access digital library after regular working hours.
- Coaching classes are conducted for competitive examination, placement training programs, personality development skills, communication skills.
- Certification Courses in the specific areas of technology.

Systematic feedback through teacher evaluation by students at the end of each academic semester helps the University to enhance the teaching learning process. The Head of the Department is asked to give a report on the newly-appointed teachers at the end of the academic year. The feedback which is collected in the prescribed formats is consolidated by the Head of the Department and a Confidential Report is prepared. The staff member is given guidance and counseling for improvement by the senior and HOD of the department. If necessary, staff members are sent for training. Feedback from industries, employers are also considered while evaluating or revising the curriculum.

Any other information regarding Teaching, Learning and Evaluation which the university would like to include.

- University conducts All India Entrance Examination for admission to various UG programs and the students are admitted through Counselling system.
- By introduction of Academic Calendar the process is Teaching / learning system is made effective by planning the events / schedule in advance.
- University organizes seminars / guest lecturers / power series lectures / workshops / conferences in the emerging technologies across all the fields of Engineering and Technology.
- University offers credit system for all UG and PG programs, this enables the student to select the electives of their own choice.
- University has developed its own system to enter attendance, activity diary, internal marks, external marks and evaluation etc.
- University has its own academic monitoring database.
- University has developed student information system to access the student details by staff and parents. This information includes attendance, internal assessment marks, results etc.

For Accreditation – Cycle : 2 Re-Assessment

- **In order to attract the better Quality students, the University has undertaken**
 - Offering free cost of education to the top 25 students in entrance examination
 - Offering admission to the students who excelled in IIT – JEE entrance examination
 - Offering admission to the University / Board Rank holders in the Public examination
- **For physically challenged students, ramps are provided in all required. Places. Examination halls are provided for such students in Ground floor. For visually impaired students, scribes are deputed to write examinations. Audio CDs of Lectures are provided for them to equip further.**
- **Students are classified upon their skills and based on that courses are designed and conducted for their differential requirements. For requirement on communication skill, soft skill, mathematical & logical skills, a test is being conducted in the first month after joining. After evaluating, the key issues were identified and the requirements were addressed in terms of**
 - additional coaching
 - added counselling sessions
 - peer group counselling
 - communication or language coaching

Student who excel, are given opportunity to carry out research during his/her course ahead.
- **University provides resources to the students / staff for e-learning. The digital library at central library is equipped computers with high speed internet connection for which the students have access at free of cost. The students are exposed to e-journals, open source materials, e-books, material for project presentations etc., Relevant e-educational resources like NPTEL lectures, webinars; video lectures are used as effective class room solutions.**
- **University ensures effective mentoring system through Innovative Club (i club). Under this initiative, selective students (advanced learners) are being taken from each school. For each group of these students, a Mentor (faculty) gives the guidance for Research and Extra mural scientific assignments. In order to look into the progress of this I club, an overall Coordinators is given responsibility in consolidating the progress.**

- **Ph.D degree holders at faculty level had been improved to 10% within a short span of time and continuous efforts are taken to improve further.**
- **University maintains a very good cadre ratio compared to the mandatory cadre ratio requirement, i.e., more number of experienced and Professor/ Associate Professor cadre are in place than the mandatory 1:2:6**
- **To evaluate the performance of the students of both UG and PG courses, two continuous internal assessments are being conducted for each semester. The evaluation blueprint is 50% of the mark which is awarded based on the performance in the assessment examinations and 50% based on the end semester examination for both theory subjects and Laboratories. In order to have a continuous evaluation of every student the total internal marks are divided and given increased weightage for assessment test and percentage of attendance in the course of study.**
- **Program objectives and learning outcomes are mapped in terms of**
 - (a) Fundamental Concepts
 - (b) Practical Knowledge
 - (c) Advanced Learning
 - (d) New Skills

Which in turn reflects on number of students;

 - (a) Placed through campus recruitment
 - (b) Employability in core industry/government
 - (c) Passed in National level competitive exam
 - (d) Higher studies in India/Abroad
 - (e) Entrepreneur / Startups

CRITERION III RESEARCH, CONSULTANCY AND EXTENSION

Promotion of Research

- 3.1.1 Does the University have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.**

The University has two major research committees' viz. Academic Research Advisory Committee and Sponsored Research Advisory Committee to monitor and address the issues related to research at various levels. It consists of Vice-Chancellor, Deans, Heads of the Department, faculty members from university departments, and outside experts from R&D institutions.

Academic Research Advisory Committee (ARAC):

The ARAC was established for Ph.D / M.Phil and M.Tech (By Research) Scholars along with a Doctoral Committee / monitoring committee which includes the Supervisor of the candidate, Head and Senior Professor of the Departments concerned and an External Member to monitor the progress of the research scholars. In addition, review meetings are organized in the month of January and July of every academic year and experts from reputed academic Institutions and research organizations are invited for evaluating and providing critical suggestions and inputs regarding data acquisition, analysis and publication aspects along with submission of reports. The above committees conduct periodical evaluation of the research work carried out by the research scholars.

Sponsored Research Advisory Committee (SRAC):

The Committee comprises of the Dean(s) and Head(s) of the department, who evaluate the feasibility of the research proposals submitted by the faculty. The SRAC monitors the progress of the R & D proposals generated from the academic wing. The committee provides monthly update on the progress to the Vice Chancellor. It provides technical inputs for the research projects proposed before submission to the funding agencies. In the case of collaborative projects with research organisations, the principal investigator(s) interact with the scientist(s) of the collaborating institutions. The University has an **Institutional Animal Ethical Committee / Human Ethical Committee / Bio Safety Committee** that approves and regulates research involving animal and human experimentation.

Recommendations and their Impact

The recommendations made by ARAC enable research scholars to publish full of their research work in Web of Science and Scopus indexed journals prior to submission of thesis towards the award of Ph.D degree. The direct impact of this policy is the increase in h-index of the university based on citations. The recommendations made by SRAC facilitate to identify research groups and improvement in the quality of proposals before submission. This has increased the success rate of proposals getting sanctioned by funding agencies and organizations.

3.1.2 What is the policy of the University to promote research in its affiliated / constituent colleges?

Not Applicable

3.1.3 What are the proactive mechanisms adopted by the University to facilitate the smooth implementation of research schemes/projects?

- **Advancing funds for sanctioned projects**

University funds are provided in advance to the PI for the commencement of the 1st year research work, prior to the release of grant by the external funding agencies.

The University permits Principal Investigators to recruit and appoint Manpower (JRF) immediately on receipt of sanction order even before the amount is sanctioned to the University. This is to avoid delay in execution of the project.

- **Providing Seed money**

- University has a provision in place for providing seed money for new research and development initiatives in emerging thrust areas of science and technology.
- For researchers in case of a projects previously submitted to an external agency, if it is to address reviewers' comments, to improve the chance that a revised submission will be successful.
- Prerequisite infrastructure and equipment for conducting preliminary Investigations in their proposed area of Research, to perform field study and support for conference participation.
- Researchers are funded with seed money to try their innovative ideas in the areas of Science and Technology. To start the activity initially, support is given based on their volume of work and their requirements.

- **Simplification of procedures related to sanctions /purchases to be made by the Investigators for their projects**

The purchase committee of the University is responsible for the procurement of equipment. On receiving the requirements from the principal investigators, the purchase committee invites quotations, arranges meetings between the buyer and the manufacturer/dealer to demonstrate

the equipments and based on the suggestions of the Investigators; the equipment purchase is done after price negotiation.

In case, advance funds are required prior to release of grants, the investigator can procure the equipment with the support of the University.

- **Autonomy to the Principal Investigator/Coordinator for utilizing overhead charges**

The Principal investigators/Coordinators have the autonomy to utilize the overhead charges of their sanctioned projects for the annual maintenance of the equipment procured through the projects grants.

- **Timely release of grants**

The University releases advance grants to the project investigators if there is delay in grant release from funding agency.

- **Timely auditing**

The accounts department of the University monitors the utilization of amount sanctioned for the research projects. The Utilization certificate/Statement of Expenditure is audited before submission to the funding agencies.

- **Submission of Utilization certificate to the funding authorities**

At the end of every financial year, the principal investigators of the projects submit the audited Utilization Certificate to the sponsoring agency. The university strictly adheres to the procedure every financial year.

3.1.4 How is interdisciplinary research promoted?

The constantly revised policies and facile management structure of the University help to introduce and promote interdisciplinary research. Encouragement to undertake multidisciplinary approach in research related activities like DST-FIST and various other Ministry sponsored and supported

mega projects and establishment of Inter disciplinary specialized Centres in the field of Drug Discovery, Nano Technology, Atmospheric Sciences, Climate Change, Ocean Technology, Animal studies, Bio-Technology and Engineering, Bio-informatics, Medicinal Chemistry, Energy research, Remote sensing and Material Science are proactive measures to promote interdisciplinary research.

To highlight, our recent achievement is the development of SATHYABAMASAT – a Nano Satellite of interdisciplinary nature. This Satellite was developed by the staff and students of specialization including Mechanical, Aeronautical, Electronics and Automobile Engineering.

The trend of current technology requires an interdisciplinary approach, so that students are offered Interdisciplinary courses which are listed enable them to take up PG /M.Phil./ M.Tech (By Research) / Ph.D. in interdisciplinary research topics.

Expertise from the inter-departments are utilized to conduct conferences/workshops/ training programmes which are multi disciplinary in nature. In addition, Faculty members from inter-departments submit joint project proposals which Ministries invite generally. A list of the interdepartmental projects sanctioned is given below. The following research collaborations signify the collective efforts of the University to promote interdisciplinary research.

- **Inter Disciplinary Projects Between / among different Departments / Schools of the University**

S.No	Project Title	Amount Sanctioned	Funding Agency	Duration
1	<p>Participating Departments Dept. of Business Admin. & Dept of Mech& Prod Engg.</p> <p>Developing Measures for Weld defect reduction in the Nuclear Components during Fabrication Using Six Sigma Approach</p>	Rs.9,00,000/-	IGCAR	1½ Yrs

2	Centre for Nanotechnology & Dept. of Physics Enhancement of Mechanical Properties of Epoxy Resin System Through Nanophase Reinforcement	Rs.9,31,000/-	ADE (DRDO)	2 Yrs
3	Dept of E&I Engg & Department of E&C Engg Installation of multilevel Instrumented Meteorological Tower at Sathyabama University	Rs.25,00,000/-	IGCAR (DAE)	6 Months
4	Department of E&I & Dept. of ECE Engg Wavelet Analysis for Phased Array and Radiographic Images Fusion Of IR Thermography And Visible Images Using Stockwell Transform Design of Neuro-Fuzzy Controller for Plasma Position Control in Aditya Tokamak Infrared Thermography for Monitoring and Rejuvenating temples, Rock Sculptures, Monuments and Traditional Buildings Development of on-line monitoring system for preventing weld defects in Automated Gas Tungsten ARC welding by infrared Thermography and digital Radiography	Rs.24,97,750/- Rs 22,73,000/- Rs.14,39,000/- Rs.13,03,200/- Rs.25,97,617/-	DAE DAE DAE DST DST	3 Yrs 2 ½ Yrs 2 Yrs 1 Yr 2 Yrs
5	Centre for Ocean Research & Dept of Business Admin Technology Business Incubator	Rs.2,04,69,000/ -	DST	5 Yrs
6	Dept of M&P and Dept of Civil Engg Utilization of steel plant waste in manufacture of paver blocks and slag foams	Rs.73,00,000/-	Ministry of Steel	3 Yrs
7	Dept. of Mech Engg. & Dept. of Civil Engg. Experimental and Numerical Simulations of Heat Exchange Processes in Integrated Safety Vessel with Thermal Insulation and Reactor vault	Rs.24,81,000/-	IGCAR	1 Yr
8	Dept. Mechanical, Aeronautical, Electronics and Automobile Engineering SATHYABAMASAT – a Nano Satellite.	Rs 2.0 Crores	Satellite Sathyabama University Deployer VSSC, Trivandrum ISRO Expertise by ISAC, ISRO	5 Yrs

- **Inter Disciplinary Courses between / among different Departments / Schools of the University**

S. No	Name of the Interdisciplinary Course offered	Name of the Departments involved
1.	M.Tech -Material Science & Engineering	<ul style="list-style-type: none"> • Electronics & Communication Engineering • Centre for Nanosci'ence and Nanotechnology
2.	M.Tech- Nanoscience & Nanotechnology	<ul style="list-style-type: none"> • School of Mechanical Engineering • School of Bio and Chemical Engineering
3.	M.Tech in Energy Engineering	<ul style="list-style-type: none"> • School of Science and Humanities • School of Electrical and Electronics Engineering
4.	M.Sc. in Energy Science	

- **Collaboration with National/International Institutes /Industries.**

The university has effective Collaboration with industries to benefit from the synergy and to complement with the industry. The outcome of these collaborations has resulted in joint research proposals, faculty and student exchange programs, publications and consultancies. In addition to the above, several workshops, seminars, conferences and training programmes are also organized.

Nature of Partnership

- Research partnerships – collaborative R&D and joint projects.
- Research services - consulting, quality control, testing, certification, and prototype development
- Shared infrastructure - Use of university labs and equipment by firms, and business incubators
- Training Human Resources - Training of industry employees, internship programs,
- Informal interaction and Formation of social relationships - through conferences, meetings, social networks
- Placements –Students training and hiring by industries

The list of programs for the past four years is given below

National and International institution Collaboration

Nature of Collaboration	National and International institution Collaboration
Centre for Nano Science and Nano technology	
Collaborative work in Zebra fish transgenic clients for cardiological drug discovery research	Harvard Medical School
In-vivo infectious zebra fish model to target the nano bubbles generated from the bio generic nano particles using plasma resonance and nanophotonic tech..	University of Illinois, USA
Providing Apo-E line embryos for neurological drug discovery activities	European Molecular Biology Lab (EMBL)
Nanomedicine and drug discovery activities	Plasmonic Nano Bubble Lab, Rice University, USA
A Gene named <i>streptomyces sp SBRK-1</i> is discovered and submitted to NCBI gene bank.	National Centre for Biotechnology Information(NCBI)
Purification studies on Discovering Drug Molecules for cardiological and neurological disorders	Orchid Chemicals and Pharma Ltd.,
Semiconducting thin films for solar cells	Shizuoka University, Shizuoka ken, Japan
Transparent Conducting oxides of Al : ZnO Thin Films Prepared by magnetron sputtering for solar window materials	Helmholtz Zentrum Berlin (HZB), Germany
Advanced bondcoat materials for Thermal barrier coatings	National Institute for Materials Science, Tsukuba, Japan
Centre for Remote sensing and geoinformatics	
GIS Studies	JSPA, Japan
Centre for Bio-resource Research and Development	
Research Training for Developing Country Scientist (in Plant Molecular Biology-Genetic variation analysis in Sapota germplasm)	Malaysian Agriculture Research and Development Institute
Centre for Non Destructive Testing and Quality Evaluation	
Work on Plasma research and development of transforms for characterization	Institute of Plasma research, Gujarat
Research on examination, flaw characterization using convention and advanced Ultrasonic and Radiography also using infrared Thermography the diverse Non-destructive testing technique and automation	Bhabha Atomic Research Centre (BARC)

Conduct of training courses/workshops on Image processing	CEERI, CSIR Complex, Chennai
Awareness programs, Interpretation and level course on different NDT methods	ISNT, Kalpakkam Chapter
Research on examination, flaw characterization using diverse Non-destructive testing methods and automation, Training and interpretation courses, awareness programs	Indira Gandhi Centre for Atomic Research(IGCAR)
Research work on nano composite film	NUIST, Nanjing, China
Research work on Polymer Nanocomposites for Energy Application	CSIR-CLRI, Adyar, Chennai
Research work on polymer nano composites water treatment	DST/CSIR Innovation Centre, National Centre for Nanostructured Materials, CSIR Material Science and Manufacturing, South Africa
Centre for Ocean Research	
Nanoparticle toxicity testing in marine ecosystem	International Foundation for Science, Sweden
Status Survey and Conversation strategy of Elasmobranchs (Sharks) in South East Coast of India	The Rufford Foundation, UK
estimation of potential energy sources from of various types of biomass and organic	Centre for Sustainable Consumption and Production, Sustainable Use of Natural Resources, Outokumpu, Finland.
Bioenergy	Finnish Environment Institute, SYKE, Finland
Thermochemical treatment of biomass	University of Liège, Allée de la Chimie B6A 4000 Liège Sart Tilman Belgium
Wastewater treatment, polishing through algal route and biomass production,	Georges Lemaître Centre for Earth and Climate Research, Catholique University de Louvain Belgium
Delineation of environmental profile and material flow analysis of the produced biomaterials from various biomass sources	Karlsruhe Institute of Technology, Germany
Climate change studies	T.G. Masaryk Water Research Institute, Prague, Department of Applied Ecology Podbabská 30, 160 00 Prague 6, Czech Republic
Bioenergy	Allée de la Chimie B6A 4000 Liège Sart Tilman Belgium
Biofouling	King Abdullah University of Science and Technology, Saudi Arabia

Fish Stem cell development	Centre of Marine Sciences (CCMAR), University of Algarve, Faro, Portugal
Shrimp diseases	Chulalongkom University, Bangkok, Thailand
Delivery system for AZT-triphosphate analogues using nanomaterials	Institute of Chemical Biology and Fundamental Medicine, 8 Lavrent'ev Ave., 630090, Novosibirsk, Russia
Comparing bio-based & conventional nanoparticles with respect to biological effects	Department of Molecular Biology University of Salzburg Austria
Protein Thyrosine Phosphatase inhibitory studies	Korea Research Institute of Bioscience & Biotechnology, Republic of Korea
Nanosystem design and development for drug delivery to treat castration-resistant prostate cancer	Marseille Cancerology Research Center UMR 1068 Inserm-Institut Paoli-Calmettes FRANCE
Student Exchange programme	Institute for Research and Medical Consultations (IRMC), University Of Dammam, Kingdom of Saudi Arabia.
Climate change	Faculty of Marine Sciences King Abdulaziz University Kingdom of Saudi Arabia
Disease Management	Kadoorie Biological Sciences Bldg, The University of Hong Kong, Pokfulam Road, Hong Kong SAR
Aquaculture	Swire Institute of Marine Science, The University of Hong Kong, Cape d'Aguilar Road, Shek O, Hong Kong SAR
Nanomedicine	Department of Chemistry & Biochemistry. Faculty of Science, University of Lisbon, Portugal
Application of Nanomaterials	Department of Chemical Engineering, Manipal International University, Nilai, Malaysia
Marine Biotechnology	Marine Biotechnology Division NIOT- National Institute of Ocean Technology
Marine Living Resources	ESSO-CMLRE – Centre for Marine Living Resources • & Ecology, Cochin
Finfish and Shellfish Aquaculture	CIBA– Central Institute of Brackishwater Aquaculture, Chennai

Marine Biofilm , Thermal Imaging	IGCAR- Indira Gandhi Centre for Atomic Research, Kalpakkam
Radionuclide adsorption	Water and Steam Chemistry Division, Bhabha Atomic Research Centre, Kalpakkam
Student Exchange Programme,	KUFOS -Kerala University of Fisheries and Ocean Studies
Marine biology and oceanographic studies	CAS in Marine Biology, Annamalai University
Periyar University	Department of Zoology, Copepods and Nanotoxicity studies
Polyolefin Degradable studies and Seaweed in heavy metals adsorption	Department of Biotechnology and Chemical Engineering, Indian Institute of Technology Madras
Biosynthesis and biomedical studies	Thiruvalluvar University, Vellore
Nanomedicine and anti-cancer studies	Department of Zoology, University of Madras
Centre for Drug discovery and Development	
Phytomedicine	Dr. Malaiyarasa pandian Wolkite University, Ethiopia
Clinician-structural biologist	Dr. Jerry Parker Associate Dean for Research, School of Medicine, University of Missouri
Cancer Diagnosis and Therapeutics	Dr. Raghuraman Kannan Ph.D Associate Professor of Radiology & Biological Engineering, School of Medicine, University of Missouri
Nano-Pharmaceuticals	Dr. Anandhi Upendran, Ph.D Director, Biomedical Innovations Institute of Clinical and Translational Sciences, University of Missouri, Columbia
Anti TB Drug Discovery	Dr Sanjib Bhakta PhD, DPhil (Oxford), FRSMed Reader in Molecular Microbiology Director of ISMB Mycobacteria Research Laboratory Institute of Structural and Molecular Biology Birkbeck, University of London and UCL
Small molecule structure determination	Dr. S.M. Malathy Sony, School of Biological Sciences, Nanyang Technological University, Singapore

Compound purification, analysis and Biophysical Characterization	Dr. Jaime Torres, School of Biological Sciences, Nanyang Technological University, Singapore
Dengue Diagnostics development	Dr. Anthony Chua Director Strificare Diagnostics, Singapore
Dengue Therapeutics development	Prof. Ng Mah Lee Mary, Department of Microbiology National University of Singapore
Protein Engineering and Aggregation studies	Dr. Elavazaghan Murugan, Singapore Eye Research Institute, Singapore General Hospital, Singapore

National and International institution Collaboration

S. No	Name of the Indian Collaborator	Title of the Project/Paper	Name of the Foreign collaborator	Status
1.	Dr. Brijitta Centre for Nanoscience and Nanotechnology, Sathyabama University	Collaborative studies on understanding the film formation and reflection spectra for thermo-responsive microgels	Prof. Junpei Yamanaka, Dr. Akiko Toyatama, Nagoya City University, Japan	Ongoing
2.	Dr. Vinita Vishwakarma Centre for Nanoscience and Nanotechnology, Sathyabama University	Effects of rootzone design and nitrogen fertilizer on carbon sequestration in Bermudagrass and St. Augustine Turfs.	Dr. Oyedeji, Stephen, Department of Plant Biology, University of Ilorin. Project funded by Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)	Completed
3.	Dr. A. Dayanandan Centre for Nanoscience and Nanotechnology, Sathyabama University	Development of the nano-extromozymes based for ecofriendly technology for leather processing and conversion of its solid waste into value added products	DR. C K Liu, Eastern Regional Research center, United States Department of Agriculture (USDA) wyndmore, Pensylvania, Philadelphia, USA.	Ongoing
4.	Dr. Vinita Vishwakarma Centre for Nanoscience and Nanotechnology, Sathyabama University	Anti corrosion studies	Dr. Alexander Rapoport, Professor, Head of Laboratory of Cell Biology, Institute of Microbiology and Biotechnology, University of Latvia.	Initiated
5.	Dr. Beema Shafreen Centre for Nanoscience and Nanotechnology, Sathyabama University	Interaction of Natural compounds with the proteins targets from human and bacteria.	Shela Gorinstein, Medicinal Chemistry and Natural Products, The Hebrew University of Jerusalem	Ongoing

6.	Mr.S.Prakash & Dr.T.Subramonium	Status and Safe Exploitation of Marine Ornamental Fishes and Invertebrates of Gulf of Mannar, Tamilnadu: An Expensive Reserve for Conservation.	The Rufford Foundation, London	Ongoing
7.	Dr.C.Jeyanthi, HOD, Bio Informatics	Ligfam Database Curation	Georgetown University, USA	Completed
8.	Dr P Kuppusami	Thermal Barrier Coatings for Gas Turbine Engines	Dr. H. Murakami, National Institute for Materials Science (NIMS), Japan	Ongoing
9.	Dr P Kuppusami	Compound Semiconductor Solar Cell and Supercapacitors	Dr. J.F. Pierson, University of Lorraine, Nancy, France	Ongoing
10.	Dr P Kuppusami	Dye sensitized Solar cells	Dr. M. Paulraj, Dept. of Physics, University of Concepcion, Chile	Ongoing
11.	Dr P Kuppusami	Lithium Ion Batteries	Dr. B.V.R. Chowdri, National University of Singapore (NUS), Singapore	Ongoing
12.	Dr T Shyju	Compound Semiconductor Solar Cell	Dr. Yasuhiro Hayakawa, Shizuoka University, Shizuoka Ken, Japan	Ongoing
13.	Dr S S Dawn	Fuel Cells	Dr. Kumar Ganesan, University of Montana, USA	Ongoing
14.	Dr T Shyju	Dye sensitized Solar Cell	Dr. Seigo ITO, University of Hyogo, Himeji, Hyogo, Japan	Ongoing
15.	Mr Gobi Saravanan	Solar Energy Materials by Electrospinning	Dr. Etelvina de Matos Gomes, University of Minho, Portugal	Ongoing
16.	Dr T Subramaniam	Impact of ocean acidification on selected marine invertebrates	Dr. V. Thiyagarajan, Associate Professor, Swire Institute of Marine Sciences, Hong Kong	Ongoing
17.	Dr Prakash	Reproductive ecology of coral reef caridean shrimps	Dr. Bauer, Emeritus Scientist, University of Louisiana, USA	Ongoing
18.	Dr Vinitha Ebenezer	Reproductive ecology of coral reef caridean shrimps	Dr. M. Thiel, Emeritus Scientist, Universidad Cato ´lica del Norte, Chile	Ongoing
19.	Dr Prakash	Molecular phylogeny of coral reef caridean shrimps	Dr. Antonio Baeza, Associate Professor, Clemson University, SC, USA	Ongoing
20.	Dr T Subramaniam	Studies on Mangrove food web ecology using stable isotope analysis	University of Alaska Fairbanks, Alaska, USA-	Ongoing

21.	Dr Lakshmi	Collaborative Research in Networking, Intrusion Detection System, Data mining and Data Warehousing	New Mexico Tech ,USA	Ongoing
22.	Dr Vinitha Viswakarma	Collaborative Research in Nanoscience and Nanotechnology	Science & Tech. Dept. of the Republic of El Salvador, Central America	Ongoing
23.	Dr Rajesh Kannan	The Plasmonic Nano Bubble Lab collaborates on Nanomedicine and drug discovery activities	Rice University, USA	Ongoing
24.	Dr Rajesh Kannan	In-vivo infectious zebra fish model to target the nano bubbles generated from the bio genenic nano particles using plasma resonance and nanophotonic technology.	University of Illinois, USA	Ongoing
25.	Dr Rajesh Kannan	Provided Apo-E line embryos for neurological drug discovery activities of our university.	European Molecular Biology Lab (EMBL)-	Ongoing
26.	Dr Rajesh Kannan	offered Zebra fish transgenic clients for cardiological drug discovery research.	Harvard Medical School-	Ongoing
27.	Dr Jaynthy C	Ligfam data base curation studies	Georgetown University	Ongoing

Joint Publication/Certificate Course

Centre	Nature of Collaboration (Joint Publication/Certificate Course)	National and International institution Collaboration
University of Lorraine, Nancy, France	Joint Publication	International
University of Concepcion, Chile University of Singapore (NUS), Singapore	Joint Publication	International
University of Hyogo, Himeji, Hyogo, Japan	Joint Publication	International
University of Minho, Portugal	Joint Publication	International
Harvard Medical School	Joint Publication	International
European Molecular Biology Lab (EMBL)	Joint Publication	International
University of Illinois, USA	Joint Publication	International

Rice University, USA	Joint Publication	International
Konkuk University, Seoul	Joint Publication	International
Jeju National University, South Korea.	Joint Publication	International
Horticulture Research Centre, Malaysia	Certificate Course	International
Autonomous University of the State of Morelos, Mexico	Certificate Course	International

Details on National and International research collaborations between various Departments of the University with Research institutes and Industries are available with Departments and Centres.

3.1.5 Give details of workshops / training programmes / sensitization programmes conducted by the University to promote a research culture on campus.

The University organises workshops and sensitization programmes that inculcate research culture among staff and students. These programmes include research methodology, training programmes on the latest software's and awareness programs. The students are made aware of need based research avenues in order to take up research activities. Lectures on detection, treatment and research on TB and other high burden diseases were delivered. Pre and post tests conducted gave a qualitative assessment on the training imparted to meet the current global trends in research. Table below show the number of seminar / Workshop and FDP organized during the last 5 years.

Program	2012	2013	2014	2015 & 2016	Last five years
Seminar	11	33	40	69	153
Workshop	19	33	30	63	145
FDP/Training programs	15	20	29	83	147

etails of Seminars/Workshops and Training programmes organized by the various departments of the University are available in Departments and Centres.

3.1.6 How does the University facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the University?

The University has immensely 'benefited through international collaborations. The outcomes of such visits are collaborative joint research initiatives or publications and knowledge dissemination.

- Sathyabama University regularly conducts Power Lecture series through science clubs in which eminent scientists and adjunct professors from national and international organizations deliver lectures to inspire and motivate the UG/PG students and research scholars in the thrust areas of humanities, science and engineering to actively take up research.
- Professors from international universities like George Town University, University of Alaska, University of Montana, New Mexico Tech, USA, Malaysian Agriculture research and Development Institute (MARDI), Malaysia, University of Guelph, Canada etc., make periodic visits to our University. This enables our students / scholars and faculty to develop academic collaboration in the fields of mutual interest, which includes academic meetings, sharing of academic expertise and joint research initiatives. As a result of the above mentioned collaborations, our scientists have developed prototypes in the area of Nanomedicine and Functional Genomics.
- Recently the **Nobel Laureate, Prof. Walter Kohn, University of California, Santa Barbara** visited our University and interacted with our students. This promoted and created an inspiration among the academic fraternity. His visit paved way for further collaborative efforts in the respective fields.
- Dr. N. Selvakumar, consultant at National Tuberculosis Institute, Bangalore and Dr. D. Sriram of BITS at Hyderabad campus, are regular visitors to the

Centre for Drug Discovery and Development to give their expert advice and critical suggestions for collaborative research. The centre has applied for research grants in collaboration with them to various funding agencies.

- Dr. E. Vivekanandan, emeritus scientist, Central Marine Fisheries Research Institute Dr. V. Sakthivel, President, Aquaculture Foundation of India Former Director, MPEDA (Ministry of Commerce), Dr.T.Balasubramanian, Former Dean & Director, CAS in Marine Biology, Annamalai University, Portnova, Dr. D .Chandramohan, Senior scientist (Rtd), Marine Microbial Collection, National Institute of Oceanography, Goa, Dr. Joseph Royan, Former Scientist (NIO) & International Artemia consultant gave expert advice at the Centre for Ocean Research on Global Climate change adaptation, seaweed farming for commercialization (Biofertilizer), ornamental fish culture & research, artemia culture and research facility for commercialization.

The University has signed a Material Transfer Agreement (MTA) with Helmintz Centre for Infection Research, Germany to do research activities in the discovery of drug producing Marine Actinomycetes. A scientist from the Harvard Medical School has agreed to provide a transgenic line to carry out research in the area of Infectious Disease Biology funded by the Govt of India.

- Dr. Siva Aiyadurai, Visiting professor, from Massachusetts Institute of Technology, USA visited our University and interacted with our students and encouraged them towards incubating technologies and become entrepreneurs.

The University invites global experts to have effective intellectual interaction on a platform created through International Conferences organized in association with eminent research and development organizations, funding agencies and Industries across the world. Such

interactions through Conferences have lead to have MoUs with well renowned Universities and Organizations from India and abroad that provide wide scope for researchers to update their research skills and become more competent. This has resulted in the submission of bilateral project proposals by the faculty sanctioned by international and national funding agencies, publication of joint research articles in high impact factor journals and also the research expert lectures by eminent people at the research centre. Their core expertise is for the students and faculty of our University.

3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.

The University gives priority to research oriented activities. A congenial research environment has been created by way of establishing research laboratories/centres, appointing eminent faculty/scientists, deputing research scholars under student exchange programme, awarding faculty fellowships, allocating funds for research in the University annual budget and instituting special awards and prizes for innovative research ideas.

Apart from the amount received for projects sponsored by the agencies, **7%** of the total income is earmarked for research towards additional infrastructure, manpower etc. every year. 13 Research Centres have been established in association with R&D organizations to address the research needs of their respective industries.

NON – RECURRING EXPENDITURE	Heads of Expenditure	Financial Allocation and Utilisation			
		2013	2014	2015	2016
	Faculties/ Centres	-	-	-	-
		2014	2015	2016	2017
	Seed Money	5%	5%	5%	5%
	Infrastructure	65.2%	70 %	70%	70%
	Towards Equipments Towards Journals procurement Computer & Internet Facility Establishment of Research Centres				
	For Univ. Science Instrumentation Centre	29.8%	25%	25%	25%
RECURRING EXPENDITURE	Research Incentives Higher Research (within Country &Abroad) For participation in Conferences To file Patents Research Awards	60%	60%	60%	60%
	For Conduct of Workshop/ Extension activities	10%	10%	10%	10%
	For Visit of Adjunct Professors	5%	5%	5%	5%
	Budget for students research project	25%	25%	25%	25%

3.1.8 In its budget, does the University earmark funds for promoting research in its affiliated colleges? If yes, provide details.

Not Applicable

3.1.9 Does the University encourage research by awarding Post Doctoral Fellowships/Research Associateships? If yes, provide details like number of students registered, funding by the University and other sources.

The University encourages research scholars and students by offering merit scholarships, research fellowship, endowments, etc. Around 49 students receive JRF and SRF fellowship funded by Ministry and University as per the norms during the last 4 years.

Name of the faculty	Nature of visit	Sponsoring agency	Duration	University/Institution
Dr. S. Prakash Scientist – C	Fulbright-Nehru Post Doctoral Research Fellowship	United States-India Educational Foundation (USIEF)	15 th Aug. 2016 to 14 th Aug. 2018	Department of Biological Science, Clemson Univeristy, South Carolina, USA
Dr.T.S.Shyju, Scientist-D	Post Doctoral Research Fellowship	Department of Physics, Faculty of Physical Sciences and Mathematics, University of Concepcion, Concepcion, Chile	March 2016-Feb 2019	University of Concepcion, Concepcion, Chile
Dr.RamKumar	Post Doctoral Research Fellowship	Department of Physics, Faculty of Physical Sci'ences and Mathematics, University of Concepcion, Concepcion, Chile	March 2016-Feb 2019	University of Concepcion, Concepcion, Chile
Dr.M.V.Rajeswari	Post Doctoral Research Fellowship	UGC	2014 - 2019	Sathyabama University
Dr.S.Nalini	Post Doctoral Research Fellowship	DST-SERB	2016 - 2018	Sathyabama University
Dr.C.Jayaseelan	Post Doctoral Research Fellowship	DST-SERB	2016 - 2018	Sathyabama University

3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the University monitor the output of these scholars?

1% of our faculty members have been given sabbatical leave for pursuing Doctoral / Post Doctoral Programmes abroad. The faculty on sabbatical leave submit a detailed report on the work done abroad at the time of joining duty. The work has to be published to fulfill the mandatory requirement of the University.

3.1.11 Provide details of National and International conferences organized by the University highlighting the names of eminent scientists/scholars who participated in these events.

The University constantly provides a platform to promote research activities on campus by organizing various national and international conferences/ symposia/ seminars. So far, 95 National and International conferences were organized for the last 4 Years which is listed below.

Year	National	International
2008-2010	06	15
2010-2012	28	11
2012-2014	22	05
2015 – till date	02	06
Total	58	37

3.3 Resource Mobilization for Research

3.2.1 What are the financial provisions made in the University budget for supporting students' research projects?

The University has been giving paramount importance to research in different disciplines since its inception. Congenial research environment has been created by the University by way of establishing research laboratories/centres, appointing eminent faculty/scientists, deputing research scholars under student exchange programme, awarding fellowships, allocating funds for research, and instituting special awards and prizes for innovative research ideas.. This is reflected in the University annual budget .In addition, students are also provided Rs 25,000/- for a team project consisting of two to three students taken up by the pre-final year students. Preference is given to interdisciplinary projects i.e. projects taken up by students belonging to different departments. Each project will have a faculty mentor. The projects are reviewed in two stages, and a team of three best projects are given cash awards.

3.2.2 Has the University taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?

The University has a dedicated IPR cell consisting of representatives from the various departments and research centres. The cell brings awareness to the faculty and students on intellectual property rights. They also help to evaluate the possibility of patenting and provide technical assistance to complete the process of patent drafting and filing with the help of patent attorney for both Faculty and students. The IPR cell identifies innovative indigenous projects from the University for Patent filing. So far 6 have been granted and 47 have been filed. Details are available with the Research centres and the Departments.

3.2.3 Provide the following details of ongoing research projects of faculty during last four years:

S.No	Year	Name of the Project	Funding Agency	Grant Sanctioned	Duration
1.	2011	"Fund for Improvement of S&T infrastructure in Higher Educational Institutions (FIST)" SR/FST/LSI – 110/2011, dt. 20.12.2011	DST – FIST (Life Sciences)	DST:Rs.40,00,000/- Univ: s.40,00,000/-	5 Years Dec 11-16
2.	2013	Tunable Block Co-polymer Photonic Gels	(DST-SERC) Fast Track Scheme	Rs.23,76,000/-	2013-2016
3.	2013	Utilization of steel plant waste in manufacture of paver blocks and slag foams 11(1) / SDF / 2013 – TW dt 04-09-13	Ministry of Steel	Rs.73,00,000/-	3 Years Sep 13 - 16
4.	2013	Technology Business Incubator 22/2/2012-NEB (C) dt 05-07-2013	TBI / DST	Rs.1,58,27,500/-	5 Years 05 July 2013 – 04 July 2018
5.	2013	Development of Diffusion barrier coating of YSZ/Ni-YSZ on Ni-Based Superalloy by Electron Beam Evaporation for Applications in Nuclear Waste Processing. No.2013/37P/65/BRNS	BRNS / IGCAR	Rs.24,89,200/-	24th December, 2013 (4 yrs) 2013-2017
6.	2013	Shear Thickening Dispersion of Monodisperse Colloidal Particles For Ballistic Protection No.ARMREB/CDSW/2014/SU	ARB / DRDO	Rs. 23,61,250/-	30th June, 2015 3 yrs
7.	2013	Studies on β -lactamase Inhibiter(s) from streptomycetes sp SBRK -1 and its effect on staphylococcus aureus infected zebra fish embryos.	DBT	Rs.42,30,000/-	6th Sep., 2013 (3 yrs) 2013-2016

8.	2013	Detection of Harmful Radiations in the environment by Deploying Wireless Sensor Networks	DSTi	Rs.12,44,000/-	2013-2016
9.	2014	Oral delivery and immunomodulatory effect of quercetin loaded chitosan triphosphate nanoparticles in <i>Vibrio harveyi</i> challenged shrimp <i>Penaeus monodon</i> and its immune related gene expression SERB/FT/LS-999/2013	DST	Rs. 21,00,000/-	3 years Aug 14 - 17
10	2014	Technology Development for Hatchery Production and Evaluation of Probiotic Bacteria as Feed Supplement for Growth, Survival and Colour Enhancement of Marine Angel Fishes”	UGC	Rs.23,50,000/-	5 years May 14 - 19
11	2014	Molecular Studies on the β - amyloid plaque inhibiting molecules of Marine sponge Symbionts in Zebrafish (<i>Danio rerio</i>) Model	DBT	Rs.27,98,000/-	2014 -2017
12	2014	Development of thermal barrier coatings by electron beam physical vapor deposition	Vikram Sarabhai Space Centre, Department of Space, (VSSC) Thiruvananthapuram	Rs.19,41,000/-	2014 -2017
13	2014	Screening and molecular characterization of FLK-1 inhibitor(s) from marine sponge symbionts and real time molecular imaging studies	DST	Rs.25,00,000/-	2014 -2017
14	2014	Antibacterial activity of Actinomycetes against pathogenic <i>Vibrio harveyi</i> and its protective efficacy in penaeid shrimp SB/YS/LS-159/2013 dt 15.05.14	DST	Rs.8,50,000/-	3 years May 14 - 17
15	2014	Adopt a Lake – Renewable Water Source for Societal Sustenance Co/P/FP/G170/2013 dt 24-10-14	DST	Rs.6,23,150/-	2 Years Oct 14 - 16
16	2014	FIST – Physics & Sciences 2014 SR/FST/PSI-193/2014 dt 21-09-14	DST – FIST (Physical Sciences)	Rs.37,00,000/- (DST)	5 Years Nov 14 - 19
17	2014	FIST – Computer Sciences 2014 SR/FST-364/2014 dt 21-09-14	DST – FIST (Engg. Sciences)	Rs.11,00,000/- (DST)	5 Years Nov 14 - 19
18	2014	Biological Evaluation of Functionalized gold Nanoparticles as potent anti-diabetic agent in regulating Glucose Transport using in vitro model 37(1)/14/14/2014-BRNS/0383 dt 23.05.14	BRNS / IGCAR	Rs.17,23,000/-	3 Years May 14 - 17
19	2014	“Mapping of Heritage Zone” in kanchipuram and reviving its Historic significance and preserving the same	INTACH – Heritage Academy Scholarship	Rs. 2,25,000/-	2 years

20	2014	Studies on Neurogenesis effects of Solid E-Waste Heavy Metal Lead from Pallikaranai dumpsite using Zebra fish model system F.No.Q-14011/44/2013-CPW (EHC)	ICMR	Rs.41,00,000/-	8th Dec, 2014 3 yrs
21	2015	An investigation of the changes in cloud cover using long term trends in precipitation extremes and their impact on radiation feedback SR/FTP/ES-116/2014 dt 02-07-2015	DST	Rs.6,50,000/-	3 Years
22	2015	Investigation of Natural Products from Marine Source for Treatment of Neurodegenerative diseases Yss/2015/000508 dt 13-11-2015	DST - SERB	Rs.24,36,000/-	3 Years
23	2015	Characterization of Weld Defects using Fusion of Radiographic and Ultrasonic Phased Array Images	BRNS / IGCAR	Rs 23,34,692/-	3 Years
24	2015	Studies on the effect of Cesium-137 and Strontium-90 on the embryonic development and genomic responses in freshwater and marine fish models Danio rerio and Artemia franciscana	BRNS/ IGCAR	Rs.34,00,000/-	3 Years
25	2015	Design of signal analysis Techniques for Determining the Parameters Responsible for Plasma Disruptions in Aditya Tokamak 39/10/2015 – BRNS dt 24-07-15	BRFST / IPR	Rs.9,54,000/-	3 Years
26	2015	Design and fabrication of optical band-pass filter based on interference of thin films 39/01/2015 – BRNS dt 24-07-15	BRFST / IPR	Rs.13,43,000/-	3 Years
27	2015	Utilization of steel slag material with concrete for radiation shielding studies	AERB/ BARC	Rs.27,00,000/-	3 Years
28	2015	Diversity (cultivable and culture independent), ex situ conservation and bioprospecting of marine actinobacteria for antibiotics, anti-tuberculosis, anti-HIV and immunomodulatory substances BT/PR5426/AAQ/3/599/2012 dt 16-03-15	DBT	Rs.39,11,200/-	3 Years
29	2015	Characterization, structure elucidation & druggability studies of three potential anti TB metabolites from novel Streptomyces sp ANS2 isolated from Andaman and Nicobar marine sediments	DBT	Rs.32,58,253/-	3 Years
30	2015	Purity and in vitro efficacy studies on Transitmycin 5/8/5/26/TF/2013/ECD-I dt 24-03-15	ICMR	Rs.2,40,000/-	3 Years
31	2015	Agro Ecological zone based biomass assessment of Thiruvannamalai district for climate change adaptation SR/WOS-A/ES-31/2013 dt 06-05-14	DST	Rs.5,55,500/-	23rd March, 2015, 3 yrs (2015-2018)

32	2015	Smart Biomaterial: Designing and biosynthetic modifications leading to enhanced sorption efficacy and environmental stability for decontamination of waste water with respect to metallic impurities	UGC	Rs.31,38,400/-	2015-2017
33	2015	Studies on the anticancer mechanisms of PI3K inhibitor(s) from marine sponge symbionts	DBT-Marine Biotechnology	Rs.28,67,853/-	July 2015 – May 2016
34	2015	Steroidal Control of vitellogenesis in the freshwater prawn <i>Macrobrachium rosenbergii</i> : lipogenesis and carotenoid metabolism relating to ovarian development and embryogenesis.	DST, SERB, New Delhi	Rs.41,66,400/-	3 years Nov 15-18
35	2015	High Temperature X-ray Diffraction Studies on Precipitation Behaviour of Ni and Fe Based Alloys	Liquid Propulsion Systems Centre (LPSC), ISRO, Thiruvananthapuram	Rs.18,42,000/-	3 years Oct 15-18
36	2015	Development of polymer Nanocomposites for Electromagnetic Shielding	CVRDE	Rs.15,01,276/-	(03rd July, 2015) 3 yrs.
37	2015	Exploration of small peptides from Marine echinoderms against candidal amyloid proteins using zebrafish (<i>Danio rerio</i>) as a model system.	DST, SERB, New Delhi	Rs.25,90,000/-	(03rd July, 2015) 3 yrs.
38	2015	Screening of differentially expressed genes in larvae of <i>Macrobrachium rosenbergii</i> under abiotic stress.	DST, SERB, New Delhi	Rs.22,76,000/-	(03rd July, 2015) 3 yrs.
39	2015	Interactive Influence of Temperature, CO ₂ light and nutrient fluctuations of marine microorganism with implications to global climate change: A Mesocosm Study.	DST, SERB, New Delhi	Rs.24,20,000/-	18th June, 2015 3 yrs.
40	2015	Isolation and Mass Production of β -lactamase class proteins and efflux pump inhibitors against Multidrug resistant Pathogens from Marine Actinomycetes.	Central Drug Research Institute (CDRI) – CSIR (MoES)	Rs.45,16,800/-	3 years
41	2015	Development of BaSr _{1-x} TiO ₃ Tunable Dielectric Thin Films Prepared by Pulsed Laser Deposition	Vikram Sarabhai Space Centre (VSSC) Indian Space Research Organization (ISRO) Thiruvananthapuram	Rs.24,67,000/-	1 ½ Years July 15-Jan 17
42	2015	Surface Modified Hybrid Bioimplants by Pulsed Laser Deposition to enhance the implant durability.	DBT Bio Engineering, New Delhi	Rs.30,37,750/-	2 Years July 15 - 17

43	2015	Colour Switching Electrochemically Tunable pH Responsive Etalons	UGC-DAE CSR, Indore	Rs.11,00,000/-	2 years April 15 - 17
44	2015	Identification and Charaterization of molecular link between lamin A and Telomere in the context of aging.	SERB, New Delhi	Rs.27,50,000/-	3 years
45	2015	Generation of High Resolution Digital Elevation Model CVRDE/MMG/SPC/15-16/22 Dt 11-06-15	DRDO / CVRDE	Rs 9,59,400/-	11/2 Years Jun 15 - 16
46	2015	Development of CNT based polymer (Epoxy & PVDF) composites for EMI Shielding	DRDO / CVRDE	Rs.21,69,000/-	June 2015 – June 2018
47	2015	Development of Bio Nanocomposites Materials for Strontium and Cesium Removal from Polluted Water DMM/PP/0002001/M/2348/D(R&D) Dt 29-04-15	DRDO / DLJ	Rs.9,97,500/-	2 Years Apr 15- 17
48	2015	Process And Thermal Properties Of Thermal Barrier Coatings On Super Alloys	ISRO / LPSC	Rs. 18,84,000/-	July 2015 – June 2018
49	2015	Development of CNT Based Strain Sensor No.ISRO/RES/3/672/14-15	ISRO / LPSC	Rs. 19,55,000/-	23rd March, 2015, 3 yrs (2015-2018)
50	2015	Studies on the Impact of Mercury on Human Health and Development of Technology for its Recovery from Electronic Wastes F.No.Q-14011/15/2013-CPW(EHC	MoEF	Rs. 49,00 000/-	June 2015 – May 2018
51	2015	Quantification of the impact of regional climate change on precipitation patterns over India MoES/16/27/2014 – RDEAS dt 10-08-15	MoES	Rs 16,31,520/-	3 Years Aug 15 - 18
52	2015	Land based closed cycle culture of Indigenous sea urchin species and development of post harvest protocols for preservation of roes MoES/36/OOIS/Extra/39/2014 dt 30-10-15	MoEIS	Rs.56,59,375/-	3 years Oct 15 - 18
53	2015	Earth Science Technology Cell for Marian Bio Technological Studies ESTC	MoES	Rs.3,35,18,980/-	5 years
54	2015	Antibacterial and Antioxidant properties of Chitosan /Biodegradable polymer encapsulated B-Carotene Micro/Nano particles prepared by spray drying method for improved properties of soy yoghurt (No.45/MFPI/R&D/2000(Vol.IV)	MoFPI	Rs.64,96,633/-	(3 yrs) July 2013 – 2017
55	2015	Isolation, Culture and Characterization of Fish Embryonic Stem Cells and Their Application in Transgenesis	DST-SERB	Rs.23,80,000/-	2015-18

56	2015	Studies on Adsorption Characteristics of Radionuclides by Phyco-colloids of Seaweeds	AERB-DAE	Rs.37,07,800/-	1 Year Feb 16 - 17
57	2015	Documentation and Renovation of Hindi Prachar Sabha, Chennai	Ministry of Culture, Gandhi heritage sites Mission, Ahmedabad	Rs.1,52,000/-	1 year
58	2016	Exploring the antibiotic potential of siderophores from marine – derived actinobacteria against multi drug resistant gram negative bacterial pathogens	SERB - DST	Rs.19,08,000/-	3 years Mar 16 - 19
59	2016	Development Of Inversion Algorithms For Retrieval Of Atmospheric Parameters From Atmospheric Lidar Data ISRO/RES/2/405/15-16 dt 17-02-16	ISRO / NARL	Rs.5,04,000/-	2016
60	2016	Sensitization of Colicin Resistant E. coli by Cell-Penetrating Peptides	SERB - DST	Rs.17,84,400/-	3 Yrs
61	2016	Immune enhancement using sulfated polysaccharides isolated from marine algae (Seaweeds) against Mycobacterium marinum	SERB - DST	Rs.32,45,000/-	3 Yrs
62	2016	Mineralization of Crosslinked DBM for maxillofacial and orthopedic bone Regeneration	SERB - DST	Rs.9,20,000/-	3 years Mar 16 - 19
63	2016	Assessment of blue carbon stock in the mangroves ecosystems of Tamilnadu DST/IS-STAC/CO2-SR-256/15(G) dt 03-12-15	DST	Rs.30,27,600/-	3 Yrs Dec 15 - 18
64	2016	Late Holocene Tectonic land-level changes and Tsunamis: Comparison between Muthupet Lagoon, Bay of Bengal and Rocky Island Creek, South Andaman, Indian Ocean SB/EMEQ-111/2014 dt 9-02-16	Centre for Earth	Rs.34,24,968/-	4 Yrs Feb 16 - 20
65	2016	Know Your Watershed & Give Water a Hand CO/P/TR/S142014 dt 20-10-15	DST	Rs.5,45,600/-	1 Yr Oct 15-16
66	2016	Integrated Scientific Approach for sustainable Development of Tribal Community- A Case Study of Kalrayan Hills. Villipuram District, Tamil Nadu Using Remote Sensing and GIS NRDMS/01/78/015 (G) dt 10-02-16	NRDMS	Rs.7,21,000/-	1 Yr Feb 16 - 17
67	2016	Extracting of Geographical Coordinates of Wind Mills for six states (Maharashtra, Karnataka, Andhra Pradesh, Gujarat, Rajasthan & Uttarakhand/MP) NIWE/WRA/112/2014-2015 dt 27-07-15	NIWE (C-WET)	Rs.3,02,500/-	6 Months 2015 - 2016

68	2016	Awareness, survey and conservation of Rays in Indian coast lines 19485-1 dt 06.05.2016	RF	Rs.4,75,000/-	1 Year May 16 - 17
69	2016	Bioprospecting of fish-associated actinobacteria for Quorum sensing inhibitors effective against microbial biofilms ECR/2016/000438 dt 11.05.16	SERB	Rs.20,25,000/-	3 Years May 16 - 19
70	2016	Targeting the Herpes Simplex Virus (HSV) entry and fusion by identifying the glycoprotein inhibitors from marine algae Sargassum ECR/2016/000469 dt 11.05.2016	SERB	Rs.32,00,000/-	3 Years May 16 - 19
71	2016	Study on Development of Polyurea coating for protection against mine blast	CVRDE	Rs.9,91,280/-	1 ½ Years
72	2016	Development of Image Processing Technique to improve the performance of Optical Imaging Diagnostics on SST1	BRNS	Rs.22,64,300/-	2 Years Jul 16 - 18
73	2016	Studies on the impact of elevated levels of water temperature and acidity on the developmental stages, biochemical, immunological and molecular responses in marine organisms (artemia, rotifer and penaeus vannamei) as model 2-12(1)/16-17/NICRA dt 13-07-16	ICAR	Rs.31,00,000/-	3 Years Jul 16 - 19
74	2016	Derivation of digital elevation model (DEM) and retrieval of terrain parameters for multi scale micro climate modeling	NARL	Rs.42,97,000/-	2 Years
75	2016	Insights the mechanism of ALK drug resistance in human lung cancer treatment and identification of potential inhibitors	SERB, New Delhi	Rs.28,80,000/-	2016 -2019
76	2016	Development of microbial extremozymes and their application for the cleaner fabrication of leather, detergent and biofuels. An ecofriendly approach	MoEF, New Delhi	Rs.49,00,000/-	2016 -2019
77	2016	Physiology and Molecular Adaptations of Coral Reef Dwelling Caridean Shrimps to Climate Change	DST, SERB, New Delhi	Rs.21,60,000/-	2016 -2019
78	2016	Synthesis, Characterization and collective properties of active particles	DST-WOS, New Delhi	Rs.19,90,000/-	2016 -2019
79	2016	Development of Multicolor Fluorescein-Sorbitol Derivatives for blood brain barrier permeability and real time imaging studies in embryonic zebrafish	SERB-DST, New Delhi (NPDF)	Rs.27,60,000/-	2016 -2018
80	2016	Adaptive and Self-Lubricating Advanced Hard Coatings for Tribological Applications	SERB-DST, New Delhi (NPDF)	Rs.25,00,000/-	2016 -2018

81	2016	Studies on the anti-cancer potential of venom proteins from jellyfish species and their structural characterization	DBT	Rs.30,00,000/-	2016-2019
82	2016	Technology Business Incubator towards Marine Bio-resources Utilization	NSTEDB-DST	Rs.84,62,500/-	2016-2019
83	2016	Controlling the Dengue virus infection using the extracts of marine actinomycetes by identifying the mechanistic route involving the envelope / nucleo-capsid protein	DST-SERB	Rs.28,46,000/-	2016-2019
84	2014	Decontamination of toxic metals from waste water using agricultural wastes and its polymerization	UGC-Post Doctoral Fellowship for Women	Rs.14,16,000/-	2014-2016
85	2016	Recent Trends in thin film development and their applications in Biomedical and biosensor devices	DBT	Rs.6,00,000/-	2016-2017
86	2016	Nano micronutrients: Preparation and Foliar Application in Agriculture	ICAR	Rs.11,96,000/-	2016-2017
Total				Rs. 25,41,51,580/-	

3.2.4 Does the University have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.

Owing to the reputation and quality of research of Sathyabama University several industries and corporate have been sponsoring projects and collaborating with us in various capacities. Highly reputed international/national companies and corporate like Accenture, Cognizant, QMAX, and Computer Sciences Corporation of India have been associated on a long-term basis to promote research, industrial training and placement. Every year several industries contribute to industrial corpus fund and get their meritorious wards educated in the University.

Nature of Partnership

- Research partnerships – collaborative R&D and joint projects.
- Research services - consulting, quality control, testing, certification, and prototype development
- Shared infrastructure - Use of university labs and equipment by firms, and business incubators

- Training Human Resources - Training of industry employees, internship programs,
- Informal interaction and Formation of social relationships - through conferences, meetings, social networks
- Placements –Students training and hiring by industries

S.No	Year	Name of the Industry / Corporate Project	Funding Agency	Total grand received
1.	2014-2016	Structural Characterization using FESEM & XRD	Renault-Nissan Technology and Business Centre India Private Ltd, Chennai	Rs.137875/-
2.	2014-2016	Structural Characterization using FESEM & XRD	L & T, Sriprumathoor	Rs.1,00,000/-
3.	2014-2016	Structural Characterization using FESEM & XRD	Johnson & Johnson	Rs.2,00,000/-
4.	2015-2016	Structural Characterization using FESEM & XRD	IP Rings Ltd, Chennai	Rs.25,000/-
5.	2015-2016	Structural Characterization using FESEM & XRD	India Pistons Ltd, Chennai	Rs.35,000/-
6.	2015-2016	Thermal Properties of Concrete for Thermal Energy Storage Application	Maxon Power Pvt. Ltd., Chennai	Rs.5,00,000/-
7.	2007	Development of User Friendly Application for ATE using Graphical User Interface(GUI)	Qmax	Rs.42,00,000/-
8.	2007	Development of User Friendly Graphical User Interface (GUI) Test Component Development module for ATE		Rs.28,00,000/-
9.	2007	Development of User Friendly Graphical User Interface (GUI) In Circuit Functional Test Module for ATE		Rs.25,95,000/-
10.	2007	Development of User Friendly Graphical User Interface Q-Signature Module for ATE		Rs.19,05,000/-
11.	2007	Development of User Friendly Graphical User Interface (GUI) Card Edge Studio module for ATE		Rs.40,00,000/-
12.	2007	Development of User Friendly Graphical User Interface (GUI) Boundary Scan Test module for ATE		Rs.25,00,000/-
Total				Rs.1,89,97,875 /-

Consultancy Projects with Cognizant Technology Solutions.

Cognizant technology Solutions have identified few objectives and are assigned as consultancy projects to the students of Final Year. On their successful application, they are acknowledged in campus placements.

Topic	Mentor name	Name	Year	Department
Automating the Mobile Application by an Other Mobile Application	E.Nagarajan	Kumar Akash Deep	III	CSE
		Vikas Kumar	III	CSE
		Prakash Kumar Prasad	IV	EEE
		Nikesh D	IV	CSE
		M Shreenidhi Devi	III	CSE
Automated Testing Tool for Windows Phone 8 Mobile Native Application	Mr. Baron Sam	Manish Anand	III	CSE
		Manikant	III	CSE
		Mikhil	III	CSE
		R. Julian Menezes	II M.Tech	IT
Location Simulator for Server Side	Dr.Prem jacob	Nishanta Talukdar	III	ETCE
		C.Daniel Nehemiah Anand	III	CSE
		Varun Krishna Dey	III	ECE
		Bhabarnav Sharma	III	ETCE
Unit testing / API Testing the code for IOS, Windows 8	Dr. Bharathi	Swati	IV	EIE
		Anand Shankaran	IV	EIE
		Rafey	III	CSE
		Mikhil	III	CSE
Compliance Testing for Mobile Devices	Dr. A.V.K.Shanthi	Apurwa Das	IV	CSE
		Sneka Adikari	IV	CSE
		Pooja Saha	IV	CSE
		Lakshana	IV	CSE

Consultancy Projects with Computer Sciences Corporation, India

CSCI has provided projects to Our III year students' as part of consultative services. The projects offered and the mentors allocated for those projects are listed below. These projects are part of their main projects which has been successfully completed by our students and got placement offers.

S.No	Project Title	Mentor Name	Dept	Students List
1	Credit Processing System	Ms. Sivasangari	IT	1. AMBARISH GOGOI 2. HARPREET SINGH
2	VisEdge	Ms. Mistica Das	IT	1. NIRMAL CYRIL 2. JONES JANARTH 3. NABEEL 4. N. KARTHIK 5. KISHORE DEBNATH
3	iSEE - EXEC Dashboard	Dr.. Meera	CSE	1. EMMANUEL ARUL ISSAC 2. N. GOWTHAM 3. A. HEMANAND 4. AJAY KUMAR B. R. 5. GANESH S.
4	Resource Fulfillment System	Dr. Murugan	CSE	1. ANNAPOORNA 2. APARNA 3. PAPITHA
5	e-ORGANISER	Mr. Aroul Canessan	CSE	1. DOMINIC A. 2. LALITH KUMAR K.V.N. 3. ANISH THOMAS 4. GOWTHAM P.
6	Application Response Monitoring System(ARMS)	Ms. Prince Mary	CSE	1. YAMAN AGARWAL 2. SIDDHARTH PAUL 3. ROSHAN SINGH 4. SHUBHENDU SHARMA 5. VIBHAV SINGH

3.2.5 How many departments of the University have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.

The projects funded and implemented through the above mentioned agencies have made an impact in bringing a social change, technology product, resources management and bridged gaps in emerging research avenues thus improved the quality of living.

S.No	Year	Name of the Project	Name of the Funding Agency	Total grand received
1	2011	"Fund for Improvement of S&T infrastructure in Higher Educational Institutions (FIST)" SR/FST/LSI – 110/2011, dt. 20.12.2011	DST-FIST (Life Sciences)	DST:Rs.40,00,000/- Univ: Rs.40,00,000/-
	2014	"Fund for Improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST)" SR/FST/PSI-193/2014, Dt.21.11.2014	DST-FIST (Physical Sciences)	DST:Rs.39,00,000/- Univ: Rs.39,00,000/-
	2014	"Fund for Improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST)" SR/FST/ETI-364/2014, Dt. 21.11.2014	DST-FIST (Engg. Sciences)	DST: Rs. 11,00,000/- Univ: Rs.11,00,000/-
2	2013	Technology Business Incubator 22/2/2012-NEB (C) dt 05-07-2013	TBI	DST:Rs.73,75,000/- Univ:Rs.2,74,89,000/
2	2012	Studies on expression of Nurr1, Foxa1, Engrailed and Lmx1a/b genes in MPTP induced Parkinson's disease model in Zebrafish embryos BT/PR 14269/MED/30/444/2010 Dt 18-04-12		Rs.21,50,000/-
3	2013	Fabrication of Neuro specific nanogels for targeted drug delivery molecular imaging and analysis in APO-E-GFP Zebra fish model	DBT	Rs.35,93,800/-
4	2013	Modification of Concrete structures by Bio-Waste (cow dung) to enhance the durability and anticorrosive properties		Rs.20,34,400/-
5	2013	Studies on β -lactamase Inhibiter(s) from streptomycetes sp SBRK -1 and its effect on staphylococcus aureus infected zebra fish embryo.		Rs.42,30,000/-
6	2012	Reversal of Multi Drug Resistant Pseudomonas aeruginosa isolated from various clinical sources by pyochelin – conjugated liposome oleic acids co-encapsulated with combination antibiotics AMR/7/2011- ECD-I dt 17-05-2012	ICMR	Rs.49,17,300/-

	2012	Effect of Quarrying and pasible healthhazard the Quarry worker and the public in and around Chennai distic using Remote Sensing & GIS		Rs.33,07,000/-
	2015	Studies on Neurogenesis effect of Soild E-Waste Heavy Metal Lead from Pallikaranai dumpsite using Zebra fish Model System		Rs.52,00,000/-
	2015	Bacteriocins from Marine lactic acid Bacteria Against Drug Resistance and latent Tuberculosis		Rs.25,00,000/-
	2015	Purity and in vitro efficacy studies on Transitmycin	ICMR	Rs.2,62,000/-
7	2012	Synthesis of Non-platinum based Anticancer Drug 01 (2575)/12/EMR-II dt 03-04-12	CSIR	Rs 14,22,000/-
8	2013	Transmission Electron Microscopy of Compositionally Graded Coatings of YSZ/Ni-YSZ on Ni Base Superalloy for Nuclear Waste Vitrification Components	UGC-DAE CSR	Rs. 11,00,000/-
Total				Rs.4,70,91,500/-

The following are some of breakthroughs achieved:

- Sathyabama University - Technology Business Incubator** Established in the year 2013 with the support of National Science and Technology Entrepreneurship Development Board – Department of Science and Technology (NSTEDB – DST) intends to produce successful entrepreneurs that will eventually make the program financially viable and free-standing, create jobs, commercialize new technologies and strengthen national economy. SU-TBI of Sathyabama will act as a pedestal to help knowledge driven enterprises to establish and prosper under organized scientific guidance. SU TBI with the support of Department of Science and Technology (DST) - National Science and Technology Entrepreneurship Development (NSTEDB) is providing a great opportunity for the new technology and new business ideas. NSTEDB – DST supported SU- TBI with a total **Capital**

Grant of Rs. 158.275/- Lakhs. Sathyabama University contributed towards new land and building a sum of **Rs. 256.00/- Lakhs** and also a **Capital Grant of Rs. 35.365/- Lakhs**

- **Centre for Ocean Research** has developed products for aquaculture and oceanographic apparatuses which have brought about a major impact in the ocean research and provided solutions to several challenges encountered in fisherman community. The seaweed cultivation technology has created revenue generation opportunities for the fisher women moreover the outcome of the technology namely the biofertiliser has served the farmers to increase their yield as an ecofriendly a cost effective substitute.
- **Centre of Excellence for Energy Research** established in the year of 2014 funded by MHRD aims to enhance the quality and quantity of basic and applied research programs in energy studies. The centre will focus on sustainable energy research in India. It would certainly endure as a regional leader and serve as a nodal centre in the research and development programs of energy sectors. The core group of the centre has competent enough as they already initiated several activities in the area of energy materials. This centre would contribute significantly in building a robust research centre for energy to carry out R&D programmes in the areas of Solar Cell, Solar Thermal, Fuel Cell, Bio-energy and Super capacitors for the sustainable energy. The Centre also would organize training programs/workshops/conferences for students, researchers, academic staff, and scientists in India to further strengthen their expertise in the areas of energy research, to accelerate the India's human development index and to provide energy security. In addition to this centre have plans to start research courses for post graduate students for the development society.
- The most significant breakthrough of our university are rapid increase in quality publications raising the h-index from 31(2015) position to 38(2016) within a year and promote sathyabama university to the 2nd rank amongst private universities in Tamilnadu, 5th rank amongst all universities in Tamilnadu, 42nd amongst all universities in India awarded by MHRD, New Delhi.

3.2.6 List details of

a. Research projects completed and grants received during the last four years (funded by National/International agencies).

S.No	Year	Name of the Project	Funding Agency	Total grand received
1.	2009	Micrometeorological wind field measurement campaign at Sathyabama University for validation of atmospheric flow models during RRE IGCAR/SG/RSD/RRE/2010/11 Dt:4-05-2010	IGCAR	Rs 1,10,400/-
2.	2005	Development of Wavelet based tools and Neuro Fuzzy Control software for online weld monitoring by Thermal imaging. IGC / 05 Dt: June 13,2005		Rs 4,92,000 /-
3.	2006	Development of Digitization protocols and application of Image processing and Soft computing tools for evaluation of Radiographic weld images. IGCAR /ESG / 05 Dt: October 5,2006		Rs 5,32,000 /-
4.	2005	Indigenous Design and Development of Teletector. IGCAR/RSD/RI/Tele/2005 Dt: Dec 2005		Rs 5,34,000 /-
5.	2007	Cavitation detection in pressure drop devices based on artificial neural network for prototype fast breeder reactor. IGC/ FRTG/CMS-SDU/2007Dt:July 6,2007		Rs 6,46,000 /-
6.	2007	Cavitation Prediction in pumps using Wavelet analysis. IGC/FRTG/CIDD/LCTS/CavPredn/Aug Dt: Aug 6,2007		Rs 8,81,000 /-
7.	2009	Development of wavelet based multisensor ultrasonic data fusion algorithm for estimation of sizing of small components. IGC/FRTG/CMS-SDU/2009 Dt: Aug 3,2009		Rs 9,86,000 /-
8.	2006	Development of Zirconia coating on Alumina and high density graphite crucibles by electrophoretic deposition for applicatin in pyrochemical reprocessing SATHYABAMA/IGCAR/SPRESEARCH/2010 dt 19-01-11		Rs 4,72,000/-
9.	2008	Photo catalytic Degradation of n-Butanol IGCAR/FRTG/C&IDD/BKK/ECFM/SBU/09/101 dt: 8-6-2009		Rs. 6,00,000/-

10.	2005	Hydrodynamic and mass transfer studies on pulse column with disc and doughnut internals IGC/RPG/RR&DD/CP/2005/01/01 dt: 30-5-2005	IGCAR	Rs 8,68,000/-
11.	2009	Detailed Investigations of microbiological aspects of Biodeterioration / biodegradation of Concrete by sulphur oxidizing bacteria / fungi		Rs.19,08,950/-
12.	2010	Development of datamining tool for sequencing assembly / disassembly of transfer arm for PFBR and identification of its future modes during operation IGCAR/FRTG/GP/SU-1-2010 dt: 15-4-2010		Rs. 9, 60,900/-
13.	2009	Design of Microcontroller based fast response electronics for eddy current flow meter IGCAR/FRTG/C&IDD/BKK/ECFM/SDU/0P/101 dt: 8-6-2009		Rs. 7,86,000/-
14.	2010	Modeling and Development of Controller for Active magnetic Bearing and supply magnetic bearing IGC/FRTG/CIDD/EDSS/MAGBEARING/MODEL-SATHYABAMA dt 14-07-10		Rs 9,96,000/-
15.	2011	Developing Measures for Weld defect reduction in the Nuclear Components during Fabrication Using Six Sigma Approach IGCAR/QAD/11 dt July 18,11		Rs.9,00,000/-
16.	2011	Development of Electro- Thermal Model for Quality Assurance of Materials and Coatings IGCAR/QAD/11 dt July 18,11		Rs 10,00,000/-
17.	2008	Improving the Antimicrobial Properties of Condenser Material by Surface Modification using Nanotechnology IGC/ACCTS-B&C/SATHYA130/2008 dt: Aug 08		Rs 15,08,000 /- IGCAR:Rs.10,37,500/- Univ:Rs.4,70,500/-
18.	2008	Synthesis of Carbon Nanotubes Sensors for Gas Sensing Applications IGC/ACTS-B&C/Sathya103/2008, dt: ,Aug.,2008		Rs 18,59,500/- IGCAR :Rs12,56,000/- Univ:Rs.6,03,500/-
19.	2009	Installation of multilevel Instrumented Meteorological Tower at Sathyabama University. IGC/SG/O9 dt: June 22,2009		Rs.25,00,000/-
20.	2010	Development of pressure drop devices for LMFBR Subassemblies IGCAR/FRTG/STG/SE&HD/ETHS/SU/WO-04 dt 01/07/2010		Rs.19,73,500/-
21.	2010	Investigations of flow Distribution in main Vessel cooling system and optimization of spillway weir to mitigate gas entrainment in a fastreactor IGCAR/REG/NEG/MHD/THS/RC/2010/03 dt 27-09-10	Rs.19,87,000/-	

22.	2011	A WiFS Spectral Biomass Model for Tiruvannamali District B.19012/6/2011 – II dt 04-07-11	NRSC	Rs.21,95,400/-
23.	2010	Design of multi circuit slip ring for MBT Arjun CVRDE/MMG/09-10/0061/CARS dt: 23.2.10	CVRDE (DRDO)	Rs 9,90,000 /-
24.	2006	Study and Development of Image processing algorithm for landmine detection CVRDE/MMG/06-07/0022/CARS dt : 21.04.06		Rs 9,52,000 /-
25.	2006	Study and Development of algorithm for obstacle detection through 3D scene generation from 2D images. CVRDE/MMG/06-07/0021/CARS dt: 21.04.06		Rs 9,89,000 /-
26.	2006	Feasibility study design and development of Mini Robot CVRDE/MMG/07-08/0002/CARS dt : 04.04.07		Rs 9,80,000 /-
27.	2004	Synthesis and Electrical resistivity studies on Filled Skutterudities 10/31510 Dt: 3-9-2004	ISRO (VSSC)	Rs, 3,75,000/-
28.	2004	Characterization of Aluminum alloy 2219 in different media under different conditions 10/3/508 dt: 3-9-2004		Rs,4,36,000/-
29.	2004	Heat transfer studies in porous media VSSC-ED-RES-400-06 dt 10.06.2004		Rs 3,64,000 /-
30.	2005	Optimization of weld parameters of Al-Li alloys, including weld repair protocol ISRO/RES/3/513/11-12		Rs. 4,66,000/-
31.	2007	Generation of Large Scale Village Resources Information System for the Tsunami Affected Coastal Villages Using Remote Sensing and GIS ES/11/965/2005 dt :05/06/2006	DST	Rs. 8,35,000/-
32.	2006	An Inlet Information System for Tamil Nadu Coast. SR/FTP/ES-26/2004 dt. 12-01-2006		Rs. 4,32,000/-
33.	2007	Morphological Change Detection Using Differential SAR Interferometry in the Tsunami Affected Coastal areas in Tamilnadu ES/11/966/05 dt. 27-07-2006		Rs. 9,03,600 /-
34.	2007	Development of Spatial Decision Support System to Suggest Sustainable Agricultural Crop Pattern for udumalpet canal command area of Parambikulam Aliyar Project ES/11/979/05 dt. 05-09-2006		Rs. 9,12,000/-

35.	2008	Use of temple tanks for artificial recharge – A case of Arulmegu Marundeeswaran temple tank in Thiruvanmiyur DST/TDT/WTI/2K7/216 dt: 09-05-2008	Rs 6,38,000/-
36.	2008	Productivity improvement of waste land through artificially recharging of tank water. A case study – Thuringalar Minor Basin Tamil Nadu DST/TDT/WIT/2K7/17 dt: 11-06-08	Rs 4,41,600/-
37.	2006	Time domain dielectric spectroscopy studies on the interaction of collagen with surfactants in aqueous solutions SR/FTP/PS-73/2005 dt:29-11-2006	Rs.7,74,000 /-
38.	2010	Novel Cytotoxic Metabolites from Marine Actinobacteria SR/BY/L-34/09 Dt: 01.09.2010	Rs.6,96,000/-
39.	2008	Microbial ensilation and co-fermentation of shell wastes for recovery of biopolymer DST/TSG/WP/2007/19 dt26-03-2008	Rs 16,98,600/-
40.	2010	Biological synthesized gold nanoparticles using sargassum antidiabetic studies SR/NM/NS-06/2009 dt: 16-07-2010	Rs 19,78,240/-
41.	2008	Application of Advanced Mathematical Techniques (Soft Computing) in GIS data analysis. SR/WOS-A/ES-05/2008 dt. 30-07-2008	Rs. 10,92,000/-
42.	2011	Augmenting groundwater recharge through select five ancient tanks in Chennai city DST/TM/WTI/2K9/150 dt: 05-01-2011	Rs 14,78,900/-
43.	2011	Strategy for increasing per capita availability of water for Gingee town Tamil nadu DST/TM/WTI/2K10/228/(G)	Rs.15,19,200/-
44.	2006	Location based services for emergency management ES/11/850/2004	Rs 27,66,700 /-
45.	2008	GIS based Web Services for Emergency Management NSDI/11-6-2008 dt: 6-11-08	Rs 22,90,800/-
46.	2005	Synthesis and Electrical Resistivity studies on filled skutterudies SR/FTP/CS-50/2005 dt: 12-5-2005	Rs,10,02,000/-
47.	2005	Cascaded Multi-Temperature Latent Heat Solar Thermal Storage Device SR/S3/MERC/46/2004dt:4/19/2005	Rs. 23,40,000/-

48.	2011	Infrared Thermography for Monitoring and Rejuvenating temples, Rock Sculptures, Monuments and Traditional Buildings DST/SSTP/TN/11/141 dt 13-09-11		Rs.13,03,200/-
49.	2012	Development of on-line monitoring system for preventing weld defects in Automated Gas Tungsten ARC welding by infrared Thermography and digital Radiography SR/S3/ME/0048/2010 dt 18/01/2012		Rs.25,97,617/-
50.	2012	To Conserve water, a natural resource – know your Watershed CO/P/FP/G16/2010 Ddt 10.02.2012		Rs.5,25,800/-
51.	2000	Data Monitoring using WAP	AICTE	Rs.2,00,000/-
52.	2000	Hyper Lecture Hall		Rs.2,00,000/-
53.	1997	Coherent communication systems using optical devices		Rs.2,20,000/-
54.	1995	Real time Energy Management Information System		Rs.3,00,000/-
55.	2001	Modernization of Digital Image Processing		Rs.5,50,000/-
56.	1995	Women Entrepreneurship		Rs.2,00,000/-
57.	1995	Financial and non Financial Executives		Rs.2,00,000/-
58.	1995	VOC Training for rural youths		Rs.3,00,000/-
59.	2008	Application of advanced signal analysis approaches for enhanced detectability of defects in thick walled weldments by ToFD and correlation with high sensitivity radiography and with other advanced NDE techniques. 2008/36/04-BRNS/250 Dt. May 22,2008	BRNS	Rs.21,64,550/-
60.	2007	Studies on Ecotoxicology of Engineered Nanoparticles in Selected Marine Organisms BT/PR10014/NNT/28/91/2007 dt: 24.12.2007	DBT	Rs.21,78,000 /-
61.	2010	Studies on expression of OCT4, SOX2, NANOG and FOXD3 genes in UV induced skin carcinogenesis in zebra fish embryos No.BT/PRI3241/GBD/27/225/2009/dt: 11/1/10		Rs 12,48,000 /-

62.	2009	Construction, characterization of microbial consortia capable of degradation azo dye containing efficient BT/PR10509/PID/06/415/2008 dt:25-6-2012		Rs 14,92,000/-
63.	2010	In vitro study on the bio-toxity of nano – silver as anti-bacterial material BT/PR12625/NNT/28/433/2009 dt: 14-09-10		IIT :Rs 23,,12,000/- Univ.:Rs 28,46,000/-
64.	2007	Biomass Estimation of Teak Forest using Microwave Remote Sensing. 13/13/2005/EI/RE dt: 29-12-2006	MoEF	Rs. 13,02,260/-
65.	2007	Monitoring of Coastal Environment with Special Reference to Disaster Mitigation using High Resolution Satellite Data and GIS 13/11/2005-RE dt. 21.12.2006		Rs. 15,59,860/-
66.	2007	Geomorphological Change Detection and Digital Elevation Model Generation Using Remote Sensing Technique 23(0007)07/EMR-II dt. 25-04-2007	CSIR	Rs. 12,41,833 /-
67.	2008	Specific yield studies for planning and designing of artificial recharge structures in suburban areas of Chennai/ Tamilnadu 5-13/2006/ACCTS/2983 dt: 31.12.08	MWR	Rs 19,20,000/-
68.	2011	Development of A Drift-Free, Long Pulse Integrator For Steady State Tokamak IPR/NFP/2011/AUG/N/07		Rs.14,76,000/-
69.	2011	Design of Analog to Information Converter IPR/NFP/2011/AUG/N/08	BRFST	Rs.11,52,000/-
70.	2011	Design Of Single Pixel Camera IPR/NFP/2011/AUG/N/06		Rs 15,86,000/-
71.	2011	Fusion Of IR Thermography And Visible Images Using Stockwell Transform IPR/NFP/2011/AUG/N/01		Rs 22,73,000/-
72.	2011	Design of Neuro-Fuzzy Controller for Plasma Position Control in Aditya Tokamak IPR/NFP/2011/AUG/N/02		Rs.14,39,000/-
73.	2007	Development of User Friendly Application for ATE using Graphical User Interface(GUI)		Rs.42,00,000/-
74.	2007	Development of User Friendly Graphical User Interface (GUI) Test Component Development module for ATE	Qmax	Rs.28,00,000/-

75.	2007	Development of User Friendly Graphical User Interface (GUI) In Circuit Functional Test Module for ATE		Rs.25,95,000/-
76.	2007	Development of User Friendly Graphical User Interface Q-Signature Module for ATE		Rs.19,05,000/-
77.	2007	Development of User Friendly Graphical User Interface (GUI) Card Edge Studio module for ATE		Rs.40,00,000/-
78.	2007	Development of User Friendly Graphical User Interface (GUI) Boundary Scan Test module for ATE		Rs.25,00,000/-
79.	2006	Solar Steam Cooking System MNRE LR No.35/4/2006 – UICA(SE) dt 31.03.2006	TEDA & MNES	MNRE:55,00,000/- Univ:58,00,000/-
80.	2011	Monitoring of bioavailability toxicity and trophic transfer of manufactured metal oxide nanoparticles in marine ecosystems A/5041- 1 dt 14-11-2011	IFS (Switzerland)	8,500 \$ (Rs.4,43,796/-)
81.	2011	Classification of Forest Types and Estimation of tree Heights of Space Borne Polarimetric SAR Data B.19012/4/2011-II dt 30-06-2011	ISRO / NRSC	Rs.9,98,000/-
82.	2011	Spatio-Temporal Monitoring of Soil Moisture Dynamics and CROP Growth B.19012/5/2011 – II dt 08-07-11		Rs.23,25,000/-
83.	2011	Intelligent Satellite Image Retrieval and Based on Ontology Approach E.33011/90/2011-V dt 20-06-2011		Rs.14,41,000/-
84.	2011	Wavelet Analysis for Phases Array and Radiographic Images 2011/36/39-BRNS/1980 dt 19/11/2011	BRNS / IGCAR	Rs.24,97,750/-
85.	2011	Pesticidal activity of cyclodepsipeptide from nomuraea rileyi (farlow) against the major groundnut defoliator spodoptera litura (fab) SR/FT/LS-111/2008 (G) dt 03-10-2011	DST	Rs.17,84,000/-
86.	2012	Creating a Digital database of Utrakhand and Karnataka (Base map & Land Use/Land Cover Map) using Remote sensing and GIS C-WET/WRA/089/2011-12 dt 01.11.12	C-WET	Rs.12,92,500/-

87.	2012	Effect of Quarrying and pasible healthhazard the Quarry worker and the public in and around Chennai distic using Remote Sensing & GIS	ICMR	Rs.33,07,000/-
88.	2012	Synthesis of Non-platinum based Anticancer Drug 01 (2575)/12/EMR-II dt 03-04-12	CSIR	Rs 14,22,000/- + Rs.2,23,867/-
89.	2012	Stabilization and utilization of trash fish and fish 'processing waste as a slow release nitrogenous organic for increased production in vegetable farming SSD/SS/033/2011/G dt 23.10.12	DST	Rs.9,30,300/-
90.	2012	Designing and Pharmacodynamics of Stearic Acid and Poly (Lactic-Co-Glycoli Acid) Grafted Chitosan Oligosaccharide Micelles for Grape Seed(Vites Vinefera) Proanthocyanidins:A Novel Therapeutic Potential for an Invitro Periodontal SR / SO / HS-0046 / 2011		Rs.42,25,000 /-
91.	2012	Enhancement of Mechanical Properties of Epoxy Resin System Through Nanophase Reinforcement ADE/14931/3/CARS/TMS dt 01/06/12	ADE (DRDO)	Rs.9,31,000/-
92.	2012	Development of Carbon nanotube based epoxy composites		Rs.9,31,000/-
93.	2012	Reversal of Multi Drug Resistant Pseudomonas aeruginosa isolated from various clinical sources by pyochelin – conjugated liposome oleic acids co-encapsulated with combination antibiotics AMR/7/2011- ECD-I dt 17-05-2012	ICMR	Rs.49,17,300/-
94.	2012	Assessing Terrestrial Carbon of Eastern Ghats of Tamilnadu using field based approach and satellite data with a view to sustain and uoupgrade bio-fixation of CO2 by forest cover DST/IS-STAC/CO2-NWAF-02/12(G) dt 17-2-2012	DST	Rs.36,41,821/-
95.	2012	Biofabrication of gold nanoparticles as antibreast cancer drug SERC/LS-537/2011 dt 6 Aug 12		Rs.20,00,000/-
96.	2012	Studies on expression of Nurr1, Foxa1, Engrailed and Lmx1a/b genes in MPTP induced Parkinson's disease model in Zebrafish embryos BT/PR 14269/MED/30/444/2010 Dt 18-04-12	DBT	Rs.21,50,000/-

97.	2012	Ligfam Database Curation GU OTC ref.no. 2012-0199	Georgetown University, USA	4000\$ Rs.2,21,860/-
98.	2013	Nanophase modification of Fly ash concrete for enhancement of antibacterial, self - cleaning, corrosion resistance properties and durability	BRNS	Rs.20,72,850/-
99.	2013	Experimental and Numerical Simulations of Heat Exchange Processes in Integrated Safety Vessel with Thermal Insulation and Reactor vault IGC/RDG/MHD/THS/RC/2013/02 dt 31.12.13	IGCAR	Rs.24,81,000/-
100.	2013	Effect of Ternary Addition on Ductility of Aerospace Materials-A Theoretical Approach ERIP/ER/1203078/M/01/1507 dt 30.12.13	ER IPR / DRDO	Rs.11,20,585/-
101.	2013	Fabrication of Neuro specific nanogels for targeted drug delivery molecular imaging and analysis in APO-E-GFP Zebra fish model BT/PR6765/NNT/28/618/2012	DBT	Rs.35,93,800/-
102.	2013	Modification of Concrete structures by Bio-Waste (cow dung) to enhance the durability and anticorrosive properties BT/PR7436/BCE/8/946/2012	DBT	Rs.20,34,400/-
103.	2013	Transmission Electron Microscopy of Compositionally Graded Coatings of YSZ/Ni-YSZ on Ni Base Superalloy for Nuclear Waste Vitrification Components No.CSR-KN/CRS-49/2013-14/648	UGC-DAE CSIR	Rs. 11,00,000/-
104.	2013	Synthesis, Characterization and Application of a Novel Metal complex Photocatalyst System for Carbon Dioxide Splitting.	Department of Space, (VSSC) Thiruvananthapuram	Rs. 14,50,000/-
105.	2013	Evolve strategies through Hydrological Modeling of chain of tanks in Guduvanchery, Tamilnadu to increase the utilization of water NRDMS/11/1956/012/(G) dt 10-09-13	DST	Rs.5,55,800/-
106.	2013	Theoretical investigation on improving the hardness of novel superhard materials by doping SR/S2/CMP-0039/2012 dt 25-10-12	DST	Rs.14,51,558/- + Rs.2,26,200/- (For Extension)
107.	2013	Effect of Green Tea polyphenol-epigallocatechin gallate on free radical and inflammation mediated cardiac dysfunction and endothelial senescence in ageing and streptozotocine induced diabetes in wistar albino rat SB/EMEQ-236/2013 dt 10-10-2013	DST	Rs.12,00,000/-

108.	2013	Detection of Harmful in the Environment By deploying Wireless Sensor Network S.No.NRDMS/11/1978/2012	DST	Rs.10,40,000/-
109.	2014	Location based services for every day essentials	DST	Rs.16,14,000/-
110.	2014	Thematic Convergence Project – Economic Alleviation of Rural women through women Empowerment Bureau at Sathyabama University 11 – 76/2013-NMEW/262 dt 31.12.2013	MWCD	Rs.12,00,000/-
111.	2014	Preparation of Disaster Management Plan of PFBR BHAVINI/F&IS/12/2013 Dt : 06.01.2014	BHAVINI	Rs.5,65,800/-
112.	2014	FGGA Implementation of Hardware design for Video codec Hardware Implementation of Video codec for low bandwidth radio links CVRDE/MMG/SPC/13-14/80, dt 03.01.14	DRDO / CVRDE	Rs.9,29,000/-
113.	2014	Polyurea Coating for realization of Self Sealing Fuel Tank for Armoured Fighting Vehicles CVRDE/15CR0001/ MBT/ 14-15/ LP, dt 20.05.14	DRDO / CVRDE	Rs.9,61,350/-
114.	2014	Status and safe exploitation of marine ornamental fishes and invertebrates of Gulf of Mannar, Tamil Nadu: An expensive reserve for conservation Ref.No.15679-1	The Rufford Foundation , UK	£ 4957 Rs.5,06,300/-
115.	2014	Centre of Excellence for Energy Research – under the scheme of Establishment of Centre for Training and Research in Frontier Areas of Science & Technology (FAST) 5-6/2013-TS-VII	MHRD	Rs.4,00,00,000/-
116.	2014	Assessment of genetic variation in Manilkara zapota (Sapota) using RAPID and ISSR markers for developing crop improvement strategie	NAM S&T Centre	Rs.2,70,000/-
117.	2015	A Study on the Monitoring & Measurement of Green House Gas emissions at Dumpyards using Remote Sensing & Sensor Web	DST, New Delhi.	Rs.13,44,000/-

118.	2015	Identification, Antimicrobial and Antitumoral Potential of Endophytic Actinomycetes of Some Cameroonian medicinal Plants	NAM S&T Centre	Rs.2,70,000/-
119.	2015	Production, Characterization and Purification of Protease from Thermophilic Bacillus sp. NAM-05/74/2014/AdI	NAM S&T Centre	Rs.2,70,000/-
120.	2015	Effects of Rootzone Design and Nitrogen Fertilizer on Carbon Sequestration in Bermudagrass and St.Augustine Turfs' NAM-05/74/2014/AdI	NAM S&T Centre	Rs.2,70,000/-
121.	2015	Status survey and Conservation Strategy of Elasmobranchs (Sharks) in South east coast of India	RF	Rs. 4,49,089
122.	2015	Measured Drawing Documentation of Sabarmathi asharam Preservation memorial Trust	Ministry of culture	Rs.1,52,000/-
Total				Rs. 21,01,65,936/-

b. Inter-institutional collaborative projects and grants received

i) All India collaboration

ii) International

Refer 3.2.3 / 3.2.6

3.4 Research Facilities

3.3.1 What efforts have been made by the University to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

- The University has provided infrastructure facilities such as well equipped laboratories, uninterrupted power supply, internet facility, common Instrumentation facility, etc., to develop research activities.
- The University allocates funds for research activities generously in its annual budget.
- The University has established several research centres dedicated to the emerging research frontiers.
- The University continuously upgrades its existing laboratories and research centres with sophisticated equipment and thus keeps pace with global standards.
- The University has enhanced the infrastructure and research facilities through grants from various governmental organizations.

13 Research Centres have been established in association with R&D organizations to address the research needs of their respective industries.

- **Centre for Remote Sensing & Geoinformatics in association with ISRO**
- **Centre for Nanoscience & Nanotechnology in association with IGCAR**
- **Centre for Ocean Research in association with NIOT**
- **Village Resource Centre in association with ISRO**
- **Centre for Space Technology in association with ISRO.**
- **Centre for Earth & Atmospheric Sciences in association with IGCAR**
- **Centre for Quality Assurance & Non Destructive Evaluation in association with IGCAR**
- **Centre for Waste Management in association with ISWA**
- **Centre for Laboratory Animal Technology and Research**

- **Centre for Advanced Electronic Test Engineering in association with QMAX Test Equipments**
- **Centre for Climate Change Studies**
- **Centre for Drug Discovery and Development**
- **Centre of Excellence for Energy Research**

3.3.2 Does the University have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

The University campus provides uninterrupted Hi speed internet access and has Wi-Fi facility. The University has a central library which acts as an Information Resource Centre for the faculty and the students. However there is an exclusive library present in each department for the benefit of the students. The library has specialized technology to access e-journals and online books 24/7. The digital library provides a platform for virtual networking with international experts. The Information Research Centre houses panel discussion cabins, conference halls, lecture rooms and hi-tech auditorium for facilitating brainstorming sessions and knowledge dissemination programs. Eminent personalities from different domains are invited to share their expertise for the benefit of the research scholars.

The Central Library at Sathyabama University has total area of 1,50,000 square feet, a part of which is air conditioned. After obtaining University status, with its expansion in all fields viz. increase in the number of students and faculty as well as increase in disciplines, a need was felt for complete computerization of activities.

In pursuit of this goal, new Windows based software running in Visual Basic with an Oracle Database was installed. Simultaneously the hardware to the latest Pentium IV computers installed on a network was upgraded. Circulation is computerized and bar coding system is introduced to speed up library

transactions. Accordingly, all faculty and students are issued bar-coded membership cards for access to the library.

The University has acquired the latest state of the art LCD projectors for video display on a large screen. The university has subscribed to IEEE, ASME, ASCE, ACM, Elsevier and Springer link. At present, a total of 311328 books 1442 e-books, 2377 DVDs, 62083 e-journals, 6835 subscribed journals are available in our central library. Our Library will continue to augment its resources and modernize with latest techniques in the future. Our modernized library has a Pentium LAN server with 4 nos of AT486DX4 nodes by which issues and returns are done. Students and staff members can search for books, on the author, title or subject heading and their availability using the software LIBGENIE. Also the university has subscribed to MALIBNET (Madras Library Network), Anna university library, IIT library and British Council library through which it can access the library in and around Chennai City.

3.3.3 Does the University have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?

The University has well equipped research centres wherein the common analytical instruments are made available to research scholars. Our Research Centres has Pulsed Laser Deposition, E-Beam Evaporator, thermal Evaporator, DC Magnetron Sputtering, Chemical Vapor Deposition, Spin Coater, XRD, AFM, FESEM, Epifluorescence, Cyclic Voltametry, UV-Spectrophotometer, FTIR spectroscopy, Fluorescence spectroscopy, Preparative HPLC, GC-MS, LC-MS, Hall effect measurement unit, UV-Vis nanodrop, Microtome, EVOS microscope etc. Research scholars can use this facility to analyze the morphological characteristics, orientation and texture of the synthesized nanomaterial. This facility is utilized by the faculty and students of our University for executing their research.

Refer 3.1.7 for the funding percentage allotted to USIC each year

3.3.4 Does the University provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?

Residential facilities are available for research scholars who wish to stay for a short / long duration. Wi-fi facility is provided to all the researchers. Accommodation is arranged by the university for visiting scientists.

3.3.5 Does the University have a specialized research centre/workstation on-campus and off-campus to address the special challenges of research programmes?

The University has specialized centres with state-of-art infrastructure, central library with 24 hours Wi-Fi facility for virtual networking with global researchers.

- **Off - campus facilities** like Jeppiaar steel plant, Seaweed Cultivation and salt beds at Jeppiaar Salt Pan are available for researchers to carry out their field study in life sciences and biosciences. With these available facilities the research project sanctioned by Ministry of Steel, DST have been successfully implemented by the Centre for Ocean Research.
- **Centre for Ocean Research** of Sathyabama University has initiated cultivation of *Kappaphycus alvarezii*, by giving rigorous entrepreneurship trainings to fisher-folk widows by disseminating seaweed farming as a source of additional income generation by formation of women self-help group at Muttom fishing harbour, Kanyakumari District, Tamil Nadu. The off-campus station acts as a field station for seaweed cultivation, fish culture experimentation and training facility. This state-of-art facility is model for livelihood development and sustainable socio economic upliftment of fisher-folk community.

- Artemia culture facility located in Jeppiaar salt pan situated near to Bay of Bengal and adjacent to Muttukadu Brackish Water Estuary, is another facility at field condition primed for Artemia culture, Crab fattening ,crustacean, molluscs etc. and as well as the testing and development of new aquaculture products and oceanographic apparatuses are housed in this off campus workstation for our academicians/researchers.
- To maximize the learning experience of the students, Sathyabama University has taken up its first initiative to develop a nanosatellite. A team of students and faculty members from different discipline has worked under the guidance of scientists from the Indian Space Research Organization (ISRO) to develop SATHYABAMA SAT. The work aims at providing real-time design and development experience of compact space systems to the students.
- **Centre for Space technology:** The SATHYABAMASAT nanosatellite's mission objective is to monitor the concentration of green house gases present in the atmosphere, obtain the pollution model for India through the data collected using spectrometer payload, interpret the acquired data and represent the concentration of green house gases in PPM. The spectrometer operates in the near infrared band 900 nm to 1700 nm and features a surface resolution of approximately 1.5 km when deployed in Low Earth Orbit (LEO). The Satellite is a standard 2U size satellite, with payload pointing Nadir to capture data about the composition of green house gases. The satellite consists of six subsystems namely Structure and Thermal subsystem, Attitude determination and control system, Electrical power system, On-board computer, Communication system and Payload. The design of the satellite is mostly indigenous and some space grade, off the shelf components with flight heritage has been used. A ground station has been established at the space center in our University Campus to

monitor all the health parameters of the satellite and acquire payload data after the launch of the satellite. The satellite can be controlled by sending uplink commands from the ground station. Amateur radio frequency band is used for communication so that the satellite can be tracked using its Beacon signal by HAM community people across the world. The expected life span of SATHYABASAT is four to six months and beyond that it can be used as a simple transponder for amateur radio communication by invoking loopback mode through an uplink command from the ground station.

- **Centre for Remote Sensing and Geoinformatics** with its well equipped infrastructure such as software's and hardware's that support for analyzing satellite images for preparing thematic maps that are used for various analysis employed in remote sensing and GIS softwares. The output of the analysis is helpful in decision making process for developing a sustainable decision support system (SDSS) for the development of society.

Centre also promotes off-campus programme by taking initiative in imparting skill development in geospatial tools and MS office software's to the underprivileged rural youth at our University research farm located in Tiruvannamalai district. Such programmes help them to get self employment through entrepreneurial activities and also get employed other institutions.

Centre in association with Department of Geology, University of Madras and SEEDS (NGO) regularly conduct workshop on GPS fisheries along the coastal villages to explore the possibility of identifying potential fishing zones and also trace the location (geocoordinates) in the event of searching missing fishermen.

Geospatial training programmes are conducted to engineers and scientist of State govt. officials specifically to cater the needs of generating thematic

maps of their interest and to use specific tools in the software's for expected results.

Experts of the Centre also provide guidance to department officials, research scholars on geospatial domain in order to accomplish their tasks in a timely manner.

Experts from the centre also conducted farmers workshop on the importance of soil moisture and the efficiency of irrigation water utilization for vegetable crop management for drought prone Tiruvannamalai district in Tamil Nadu

- **Centre for Drug Discovery and Development:** This centre is intended to strengthen the research activity in the ongoing anti TB and anti HIV drug discovery. Compounds from plants, marine organisms and from actinobacteria isolated from less explored ecosystems will be screened for anti TB and anti HIV activity. The molecular targets of *M. tuberculosis* and *HIV* will be identified and validated and promising leads will be generated. This provides a platform where all resources intellectual, scientific, industrial and pharmaceutical manpower of this country could work in a joint effort to realize the dream drug discovery for common man's ailments.
- **Centre for Water Research** is an exclusive research centre carrying out water related research. Eminent water resource system specialist, hydro-geologist, hydrologist and groundwater specialist of the centre who have experience in reputed national and international organizations and are carrying out large number of research and consultancy projects.
- **Centre for Earth and Atmospheric Sciences** : A 50 m instrumented meteorological tower has been setup with multilevel sensors for all the basic atmospheric parameters like wind speed and wind direction, (five levels, 50m, 32m, 16m, 8m & 2m) temperature, relative humidity (four

levels, 50m,16m,8m,2m), atmospheric pressure, rain gauge and background nuclear radiation sensor. India Meteorological Department (IMD) Chennai has installed Automatic Rain Gauge (ARG) Station at our University to calibrate temperature, humidity sensor and rain gauge has been installed around 2.5m away from the mast.

- **Centre for Laboratory Animal Research and Technology:** Centre for Laboratory Animal Technology and Research is state of art facility established with a vision to cater the researchers both within and outside the University. The centre is approved by CPCSEA, Animal Welfare Division, MoEF, Govt of India. The facility is on par with GLP standards in preclinical animal research. All kinds of small animal studies are being regularly performed with reproducible outcomes. The distinctive features of this facility are well equipped operation theatre with small animal ventilator and anesthetic apparatus, post operative care unit and radiology unit. Further, the centre houses an *in vitro* cell culture facility along with laboratories for pharmacology, toxicology, microbiology and biochemistry. The faculties from diverse disciplines working in this centre are boon to encourage interdisciplinary research. The centre is committed to provide quality education and training to all researchers especially students, in the field of lab animal research.
- **Centre for Quality Assurance & Non-Destructive Evaluation:** Centre for Quality Assurance and Non-destructive Evaluation is a well equipped centre for characterization, identification of volumetric and linear defects using diverse NDT methods, visualization of the same using advanced image analysis software and development of user friendly software packages in-addition in the development of nano bio composites and its research in different applications. The scientists with faculty from the school of electrical and electronics are actively involved in the execution of collaborative

projects along with scientist of various research organizations and institutes for different agencies viz BRNS, BRFST, DRDO etc. It acts as a data source for candidates of under graduate, post graduate and research scholars. The workshops, training and certification programs organized to cater the needs of students, researchers, academicians community and also engineers and scientist from diverse industries and research organizations .

- **Village Resource Centre:** VRCs have digital connectivity (for video conferencing and information transfer) with knowledge centers and facilities for primary healthcare services and distance education. With involvement of the stakeholder, VRC will catalyze rural entrepreneurship, and facilitate e-governance and other services of social relevance. ISRO is implementing the VRC program in partnership with reputed NGOs, Trusts and other agencies including the governmental ones. Over 250 VRCs have been set up so far, across 13 states; and efforts are on to spread them to other regions. The portfolio of services offered by VRCs include: Tele-education - focusing on vocational training/ skill Development and capacity building to catalyze alternate livelihood in rural areas.

Thus the above mentioned research centres possess on campus and off campus research stations and facilitate implementation of their research activities.

- **Technology Business Incubator**

Sathyabama University - Technology Business Incubator Established in the year 2013 with the support of National Science and Technology Entrepreneurship Development Board – Department of Science and Technology (NSTEDB – DST) intends to produce successful entrepreneurs that will eventually make the program financially viable and free-standing, create jobs, commercialize new technologies and strengthen national economy. SU-TBI of Sathyabama will act as a

pedestal to help knowledge driven enterprises to establish and prosper under organized scientific guidance. SU TBI with the support of Department of Science and Technology (DST) - National Science and Technology Entrepreneurship Development (NSTEDB) is providing a great opportunity for the new technology and new business ideas. NSTEDB–DST supported SU-TBI with a total **Capital Grant of Rs. 158.275/- Lakhs**. Sathyabama University contributed towards new land and building a sum of **Rs. 256.00/- Lakhs** and also a **Capital Grant of Rs. 35.365/- Lakhs**

Facilities Provided to the Incubates:

Conference Hall – Conference Hall with 150 seating capacity fully Air conditioned is exclusively mean for TBI incubatees.

Training Room – Training room with 40 seating capacity with projector and other facilities for training and short courses related to product development.

Incubation Cell – Incubation cell consists of 14 cabins for the incubatees for the product development and initialization.

IPR Cell – IPR Cell deals with IPR related issues and other government related formalities. Applied Engineering Laboratory – Applied engineering related activities.

Artemia and byproducts Laboratory – Artemia processing and the development of byproducts from Artemia.

Cold Room storage facility & Bioproducts Laboratory

S.No.	Year	No. of Company	Product
1.	2013 -14	2	Seaweed Liquid Biofertilizer Mushroom-Value-added products
2.	2014-15	3	Spirulina enriched Artemia Trash fish Biofertilizer TSEE model hybrid Hydrogen-LPG IC engine (Patenting of Technology – Under Process)
3.	2015-16	11	Transportation Mobile App Development Mushroom Spawn Production Mobile app a Platform for Physiotherapy and Bike Mechanism Web Page Creation Mobile application Development Bio gas compression set up Virtual Business phone Marine Antifouling coatings Low cost Network security system Women safety device - FEMME Hybrid Solar Collector

3.3.6 Does the University have centres of national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.

The University has established centres of national reputation.

- Centre for Remote Sensing & Geoinformatics in association with ISRO
- Centre for Nanoscience & Nanotechnology in association with IGCAR
- Centre for Ocean Research in association with NIOT
- Village Resource Centre in association with ISRO
- Space Technology Centre in association with ISRO.
- Centre for Earth & Atmospheric Sciences in association with IGCAR
- Centre for Quality Assurance & Non Destructive Evaluation in association with IGCAR
- Centre for Waste Management in association with ISWA
- Centre for Advanced Electronic Test Engineering in association with QMAX Test Equipments.

All the above mentioned research centres extend their infrastructural and expertise support to all the research activities within the University. The detailed account of the activities of the research activities is enumerated in the Evaluative report of Centers of Research.

3.5 Research Publications and Awards

3.4.1 Does the university publish any research journals (s)? If yes indicate the composition of the editorial board, editorial policies, and state whether it / they is / are listed in any international data base.

Being one of the most sought after Higher Education Institutions in India, Sathyabama University takes pride in publishing peer-reviewed International and National journals that throw light on significant areas in Science, Engineering, Management and Technology. The journals enable publication of pre-eminent research work by Researchers, Academicians, and Scientists pertaining to varied discipline.

In this view of encouraging the application of knowledge acquired, young and experienced minds are now widened to explore their ability of research. The International Journals (since December 2007) and National Journals (since March 2010) published by Sathyabama University have received good reach amidst educationists and researchers.

The notable feature of all the eight Journals covering specialized and interdisciplinary interest of Engineering and Management includes transparent evaluation procedure and unbiased assessment of manuscripts based on clearly stated minimum criteria of acceptability. Eminent persons with rich research experience in varied disciplines constitute the editorial board.

List of Journals published by the University

Name of the Journals	Issue	ISSN	Composition of Editorial Board
National Journals			
National Journal on Chem Biosis	April & October	0975-7309	7- International Reviewers 8- National Reviewers
National Journal on Advances in Computing & Management		0975-7295	14- International Reviewers 7- National Reviewers
National Journal on Electronic Sciences & Systems		0975-7325	8- International Reviewers 8- National Reviewers
National Journal on Advances in Building Sciences & Mechancis		0975-7317	4- International Reviewers 14- National Reviewers

International Journals			
International Journal on Applied Bio Engineering	January & July	0973-9084	7- International Reviewers 8- National Reviewers
International Journal on Information Sciences and Computing		0973-9092	14- International Reviewers 7- National Reviewers
International Journal on Design and Manufacturing Technologies.		0973-9106	4- International Reviewers 14- National Reviewers
International Journal on Intelligent Electronic Systems		0973-9238	8- International Reviewers 8- National Reviewers

The above journals are indexed in numerous international databases like Google Scholar, Journal Seek, Citeulike, New jour, Mendeley, Proquest, EBSCO host, Ulrich's, Uldtheses, CAS(Chemical Abstracts Service), BASE etc.,

3.4.2 Give details of publications by the faculty:

Table gives consolidated information on the publications of faculty members in SCI Journals.

Details	Total No. of papers published (National / International)	Total numbers International Database (Scopus/WoS)		Citation Index Range/ Average	SNIP Range	SJR Range	IF Range/ Average	h index
		Scopus	WoS					
School of Computing	1078	626	35	1-24	0.1-1.35	0.1-1.223	0.05-1.66	3
School of Electrical & Electronics	2916	1240	82	1-337	0.034-2.06	0.012-5.62	0-5.62	7
School of Mech. Engg.	716	357	49	1-71	0.6-2.083	0.13-2.125	0-4.068	3
School of Building & Environmental Engg.	269	117	9	1-15 / 8	0.156 – 3.013	0.105 – 1.953	0.065 – 2.849	7
School of Bio & Chemical Engg	1118	614	86	0-201	0.12-2.958	0.04-2.463	0.022-6.93	17
School of Science & Humanities	1076	429	90	0-158	0.1 - 2.45	0.07- 2.4	0.03-8.0 /1.33	11
School of Business Administration	667	67	6	1 to 13	0.736	0.493	0.012-2.1652	4
School of Medicine	716	357	49	1-10 (5.0)	0.057– 0.676	0.104– 0.334	0.5-4.068	3
Centre for Research	554	316	78	1 -13	0.373 to 1.423	0.175 to 2.128	0.3 to 5.083	13

Total details of publications of the University

S.No	Details	Till 2006	2007-2015	As on date
1	Number of Publications (National/International)	300	6175	8479
2a	Publications listed in WoS	35	471	874
2b	Publications listed in SCOPUS	55	1983	4508
3	Monographs	-	-	-
4	Citation Index – Range	1 – 12	1 – 257	1 – 337
5	SNIP range	0.707 – 2.43	0.01-3.01	0.01-3.01
6	SJR range	0.261 – 1.838	0.02-2.958	0.031-3.12
7	Chapters in Books	03	25	32
8	Books edited	7	27	34
9	H-index	3	31	38
'810	Impact Factor range	0.1 – 2.3	0.01-6.626	0.01-8.0
11	Books with ISBN with details of publishers	78	125	208

3.4.3 Give details of Faculty serving on editorial boards of national and international journals

The following table gives the details of the faculty members who serve as editorial board members for the various journals of National and International repute.

S. No	Name of the Faculty	Name of the journal
1	Dr. A. Lilly Rose , Department of Architecture	• Scientific committee & Editorial review board – “World Academy of Science, Engineering & Technology”.
		• Associate Editor in “International Journal of Climate Change: Impacts and Responses”.
		• Bibliographic Committee Member of “International Association for Urban Climate” Newsletter.
2	Dr. Jothi Lakshmi , Department of Architecture	• Review member in IIE Architectural Division Journal publication by Elsevier.
3	Dr. V. K. Bupesh Raja, Professor & Head; Dept. of Automobile Engg	• Reviewer in Journal of The Institution of Engineers (India): Series • Reviewer in Journal of Manufacturing Engineering (JME) - Society for Manufacturing Engineers-India’.
		• Reviewer in International Journal of Composite Materials and Manufacturing (IJCMM) • Member of the Editorial Board of i-manager’s Journal on Mechanical Engineering (JME).

		<ul style="list-style-type: none"> • Member of the Editorial Board of i-manager's Journal on Material Science (JMS). • Member of Editorial Board/Regional Editor of AES Journals in Engineering, Technology, Management and Sciences. • Member of the Editorial Board of International Journal of Emerging Technologies and Applications in Engineering Technology and Sciences (IJ-ETA-ETS). • Member of the Editorial Board of International Journal of Computer Applications in Engineering, Technology and Sciences (IJ-CA-ETS). • Member of the Editorial Board of International Journal on Design and Manufacturing Technologies published by Sathyabama University. • Member of the Editorial Board of National Journal on Advances in Building Sciences and Mechanics published by Sathyabama University.
4	Dr. Anima Nanda, Dept. of Bio- Med Engg	<ul style="list-style-type: none"> • Member of the Editorial Board of International Nano Letters • Member of the Editorial Board of Enzyme and Microbial Technology • Member of the Editorial Board of IET Nanobiotechnology • Member of the Editorial Board of Colloids & Surfaces B: Biointerfaces • Editor of Nanomedicine: Nanotechnology, Biology, and Medicine
5	Dr.Valli Nachiyar, Dept. of Bio Technology	<ul style="list-style-type: none"> • Member of the Editorial Board of Journal of Environmental & Chemical Engineers • Member of the Editorial Board of Journal of Hazardous Materials • Member of the Editorial Board of Journal of Medicinal Plant Research.
6	Dr.Jayshree Nellore, Dept. of Bio Technology	<ul style="list-style-type: none"> • Recent Patents on Nanotechnology • Member of the Editorial Board of International Journal of Biochemistry Research & Review
7	Dr.Swetha Sunkar, Dept. of Bio Technology	<ul style="list-style-type: none"> • Member of the Editorial Board of Journal of Nanostructure in Chemistry (JNSC) • Member of the Editorial Board of African Journal of Microbiology Research • Member of the Editorial Board of Journal of Nanomaterials & Molecular Nanotechnology • Member of the Editorial Board of Current Biotechnology • Member of the Editorial Board of Indian Journal of Science & Tech
8	Dr.Swarnalatha, Dept. of Bio Technology	<ul style="list-style-type: none"> • Member of the Editorial Board of African Journal of Pharmacy and Pharmacology • Member of the Editorial Board of Journal of Pharmacy Research
9	Dr.Karthick Raja Dept. of Bio technology	<ul style="list-style-type: none"> • Member of the Editorial Board of African Journal of Microbiology Research • Member of the Editorial Board of Journal of Colloids and Surface-B • Member of the Editorial Board of Indian Journal of Microbiology • Editor of Hexapoda

10	Dr. G.Senthil kumar, Dept. of Mgt. Studies	<ul style="list-style-type: none"> • Member of the Editorial Board of Emerging Market Review. • Member of the Editorial Board of Care journal of management
11	Dr. Antony Samrot, Dept. of Bio technology	<ul style="list-style-type: none"> • Member of the Editorial Board of African Journal of Microbiology Research.
12	Dr. M. Sundareswari Department of Physics	<ul style="list-style-type: none"> • Member of the Editorial Board of Journal of Alloys and Compounds; • Member of the Editorial Board of DAE SSPS research papers;
13	Dr. S. Ravichandran, Department of Physics	<ul style="list-style-type: none"> • Member of the Editorial Board of Journal of basic and applied scientific research
14	Dr. Joseph Arul Pragasam, Department of Physics	<ul style="list-style-type: none"> • Member of the Editorial Board of Journal of Thermal Analysis and Calorimetry • Member of the Editorial Board of Crystal Growth & Design • Member of the Editorial Board of Morden Physics letter-B
15	Dr. Vanaja Kumar Centre for Drug Discovery	<ul style="list-style-type: none"> • Editor of Asian Pacific Journal of Tropical Disease
16	Dr. M. Radhakrishnan Centre for Drug Discovery	<ul style="list-style-type: none"> • Editor of The SciTech Journal
17	Dr. Jerrine Joseph Centre for Drug Discovery	<ul style="list-style-type: none"> • Editor of international journal of Pharma and Bioscience
18	Dr. V. Sivachidambaranathan	<ul style="list-style-type: none"> • Member of Editorial Board of International Journal of Power Systems and Energy Management (JPSEM)
19	E. Annie Elisabeth jebaseeli	<ul style="list-style-type: none"> • International Journal of power Electronics
20	Ms. D. Susitra	<ul style="list-style-type: none"> • International Journal of power Electronics • Energy conversion and management • Journal of the Institution of Engineers (India), Series – B • Indian Journal of Science and Technology
21	G. Nagarajan	<ul style="list-style-type: none"> • International Journal of Electrical Power and Energy Systems • American Journal of Applied Sciences
22	G. T. Sundar Rajan	<ul style="list-style-type: none"> • American Journal of Applied Sciences
23	Dr. S. D. Sundarsingh jebaseelan	<ul style="list-style-type: none"> • Journal of Electrical and Control Engineering (JECE) • International Journal of Engineering Research and Technology • International Journal of Electronics and Electrical Engineering (IJEEE)
24	Dr. K. Parameswari	<ul style="list-style-type: none"> • Journal of Environment, Development and Sustainability • Indian Journal of Science and Technology
25	Dr. R. Rajesh Kannan	Journal of Photochemistry and Photobiology B
26	Dr. Dayanandan	Indian Journal of Science and technology
27	Dr. Dawn S S	International Journal of Applied Bioengineering & National Journal on Chembiosis

28	Prof. T. Subramoniam	Proceedings of the National Academy of Sciences, India, Biological Sciences
29	Dr.J. Brijitta	International Journal of Applied Bioengineering & National Journal on Chembiosis RAINSAT-2015, Editorial Board, Materials Today Proceedings (Elsevier)-Guest Editor International Journal of Nanoscience (Inderscience) Journal of Biomimetics, Biomaterials and Biomedical Engineering (Trans Tech Publications)(Special Topic Volume Editor) Applied Surface Science (Elsevier) Journal of Industrial and Engineering Chemistry (Elsevier) Journal of Nanoparticle Research (Springer) Express Polymer Letters Pharmaceutical Biology (Taylor and Francis)
	Dr.T.Sasipraba	International Journal of Applied Bioengineering & National Journal of Chembiosis International Journal of Intelligent Electronic Systems & National Journal of Electronic Sciences & Systems International Journal of Information Sciences and Computing & National Journal of Advances in computing & Management International Journal of Design & Manufacturing Technologies & National Journal of Advances in Building Sciences & Mechanics
	Dr.S.Prakash	<ul style="list-style-type: none"> • International Organization of Scientific Research, Journal of Mechanical and Civil Engineering(ISOR-JMCE) • International journal of Computational Engineering Research • International Conference on Innovations in Civil Engineering • International Conference on Advanced Nano materials and Emerging Engineering Technologies 2013 • International Institute of Engineers • I-Manager Journal on Material Science • International Journal of Design and Manufacturing • Journal of Advances in Building Science and Mechanics • Engineering and Technology-AASCIT • American Journal of Materials Science

		<ul style="list-style-type: none"> • International Conference on Production and Mechanical Engineering 2014, Dec 30-31-Bangkok(Thailand) • International Academy of Industrial ,Mechanical & Aeronautical Engineering • 2015 International Conference on Metal Materials and Engineering (MME 2015) • International Journal of Design and Manufacturing Technology • International Journal of Metallurgical Engineering • International Journal of Statistical and Applications • Scientific Research and Essays • Journal of Advances in Building Science and Mechanics • International Journal of Engineering Science and Technology. Taylor University • Journal of Measurement Confederation(Science Direct) • Journal of Mechanical Science and Technology • Journal of Mechanical Engineering and Technology(JMET) • EURECA-2013 Engineering Undergraduate Research Catalyst Conference –Taylors University
	Dr.A.Anderson	<ul style="list-style-type: none"> • Desing & Manufacturing Technologies • Advances in Building Sciences & Mechanics
	Dr. P. Kuppusami	<ul style="list-style-type: none"> • Surface Engineering, • Surface and Coatings Technology, • Met Trans.A

Faculty serving as members of steering committees of international conferences recognized by reputed organizations and societies

Our faculty member has been members of steering committees of international conferences recognized by reputed organizations and societies. The details of the name of the conference and the organizers are detailed below.

S.No	Name of the Department	Name of the Steering Committee National / International
1	Water and Steam Chemistry Division, BARC DAE Advisory Committee on Steam and Water Chemistry (COSWAC) In association with Indian Nuclear Society	Dr. Vinita Viswakarma, Scientist E,- International Asian water chemistry Symposium series (AWC-2015) Symposium on Water Chemistry and Corrosion in Nuclear Power Plants in Asia-2015, September 2th – 4 th , 2015, Anupuram (Kalpakkam).

2	Centre for Nanoscience and Nanotechnology	, International conference on Recent Advances In Nano Science And Technology (RAINSAT-2015), July 8 th -10 th 2015. Dr.Neelakanda Reddy, Scientist C Dr.J Brijitta, Scientist D
4	Centre for Nanoscience and Nanotechnology	Dr.J Brijitta, Scientist D - Self-Standing Dual Responsive Microgel Crystals, International Conference on Nanostructured Polymeric Materials and Polymer Nanocomposites (ICNPM 2015), 13 th – 15 th November 2015, Kottayam, Kerala, India.
5	Centre for Nanoscience and Nanotechnology	Dr.J Brijitta, Scientist D - Imaging Tumors Using Quantum Dots, National Workshop on “Nanotechnology For Biologists”, 6 th – 8 th January, 2016, Organized by Department of Zoology, School of Life Sciences, Periyar University, Tamil Nadu, India
6	Department of Zoology	Dr. Vinita Viswakarma, Scientist E,- National Conference on “Nanotechnological Applications in Biological Science for Human Welfare” from 6 th to 7 th February, 2016, Department of Zoology, University of North Bengal, Siliguri, West Bengal
7	Centre for Nanoscience and Nanotechnology & Centre of Excellence for Energy Research	Dr. Kuppusami- Senior Scientist , Convener, International Conference on Nanoscience and Nanotechnology for Energy Applications, June27 th -29 th , 2016
8	Centre for Nanoscience and Nanotechnology	Dr.J Brijitta, Scientist D - EMN Meeting on Photonics, Barcelona, Spain, September 19 th to 23 th , 2016
9	Centre for Nanoscience and Nanotechnology	Dr.J Brijitta, Scientist D - Global Congress & Expo on Materials Science & Nanoscience, 24 th -26 th October 2016, Crowne Plaza Dubai, Deira, Dubai - United Arab Emirates.
10	Dr.S.Prakash	<ul style="list-style-type: none"> • Advisory Committee International Conference on Innovations in Civil Engineering, • Technical Committee International Conference on Advanced Nano materials and Emerging Engineering Technologies 2013
11	Dr.V.K.Bupesh Raja	<ul style="list-style-type: none"> • Member of the Editorial Board of i-manager’s Journal on Mechanical Engineering (JME). • Member of the Editorial Board of i-manager’s Journal on Material Science (JMS). • Member of Editorial Board/Regional Editor of AES Journals in Engineering, Technology, Management and Sciences. • Member of the Editorial Board of International Journal of Emerging Technologies and Applications in Engineering Technology and Sciences (IJ-ETA-ETS).

		<ul style="list-style-type: none"> • Member of the Editorial Board of International Journal of Computer Applications in Engineering, Technology and Sciences (IJ-CA-ETS). • Member of the Editorial Board of International Journal on Design and Manufacturing Technologies published by Sathyabama University. • Member of the Editorial Board of National Journal on Advances in Building Sciences and Mechanics published by Sathyabama University. • Member of the Editorial Board of International Journal on Design and Manufacturing Technologies published by Sathyabama University. • Member of the Editorial Board of National Journal on Advances in Building Sciences and Mechanics published by Sathyabama University
13	Dr. Joshua Amaranth D	<ul style="list-style-type: none"> • Executive Member, IChE- Chennai Regional Centre
14	Dr. Alex Anand	<ul style="list-style-type: none"> • Board of Studies in Microbiology, University of Madras, Chennai, Tamilnadu, India
15	Dr. Jothilakshmy. N	<ul style="list-style-type: none"> • External Thesis Review committee member - SPA, vijayawada • COA Expert Committee Member For the inspection of Architecture Schools in India by the Council of Architecture, New Delhi • Doctoral Committee member • Anna University, Chennai • Hindustan University, Chennai
16	Dr. K. Chennakesavalu	<ul style="list-style-type: none"> • Editorial Board Member <i>Mediterranean Journal of Chemistry</i> • Editorial Board Member National Journal on Chembiosis
17	Dr.P.Kuppusami	<p>Staff Selection Committee member in IGCAR and BARC Vice-Chairman- Technical Committee for International conference on Energy materials, 2014 Convener, The International Conference on Nanoscience and nanotechnology for Energy Applications (EApp-2016), June 27th-29th, 2016.</p>
18	Dr. E. Logashanmugam, Department of ECE	International Conference on Emerging Novelties and Vistas in Space Technologies and Applications (ENVISTA 2016)
19	Lilly Rose Amirtham, Department of Architecture	Bibliographic committee member, International Association for Urban Climate

		<p>Conference committee member – International conference on building architecture and urbanism, Paris</p> <p>International Conference on Environment, Climate and Atmospheric Sciences, Dubai</p> <p>Invited Speaker at 'Climate Actions: Pathways Towards Sustainability' organized by PDP, Gandhi Nagar, Gujarat.</p> <p>Advisory/organizing committee member of Asian Advanced Materials Congress, Singapore.</p>
20	Dr. Anima Nanda	International conference on Nanotechnology for better living (ICNBL-2016) NIT, Srinagar & IIT, Kanpur, at Srinagar

3.4.4 Provide details of Research Awards received by faculty and students

Our University faculty member has been the recipient of the various awards constituted by both national and international institutes and organizations. The list of the staff members with details of the award are shown below

S.No	Awards Received	Name of the Recipient
1	SAWA Fellowship, Wageningen University, Netherlands.	Dr. Packialakshmi.S, Department of Civil Engg
2	<p>Honored for guiding the Best Architectural Thesis award 2012 in Tamilnadu for Jenish Jestus by IIA Tamilnadu Chapter.</p> <p>Prize winner for the best Architectural paper award in Dec 2012. Research paper titled "Evaluation of Imageability of a City and the Development Regulations formulated as part of the Master Plan – a Case of Chennai, Tamilnadu</p> <p>Honored by the Vellala Community of Kanyakumari District for the first lady receiving a doctorate degree in the field of Architecture.</p>	Dr. Jothilakshmy. N Department of Architecture
3	International Research Award for spirit Global Design	Dr. BSM Augustine, Dept. of Aeronautical Engg .
4	Third Place ,CLRI,Jan 2009, COILS(Challenges & Oppurtunities in Leather society)	Dr. Valli Nachiyar. Department of Biotechnology
5	Prof.Edathil Vijayan Award,Society for Biotechnology, Best Original Paper Presentation in Neuroscience& Tech.	Dr.Jayashree Nellore Department of Biotechnology

6	T.P. Moolayil memorial gold medal ,St.Berchman's college, Changanachery-1991. T.P. Moolayil memorial gold medal for securing highest mark for B.Sc.	Mr. J. V. Reji, Department of Bio technology
	SRF, Council for Scientific and Industrial Research(CSIR), Govt. of India -April 2000 Senior Research Fellowship (SRF)	
7	BOYSCAST Fellowship DST, Govt. of India, Postdoc in Germany	Dr. Masilamani Selvam, Department of Bio technology
8	Junior Scientist, Indian Association of Biomedical Scientist (IABMS, 2007). Chennai, Tamil Nadu, India.	Dr. S. Nandagopal, Department of Bio technology
9	Young scientist Award in the academic year 2011-12, Department of science and Technology, (DST), India	Dr. S. Karthick Raja Department of Bio technology
10	Agasthiar award, Indian Association Of Biomedical Sciences	Dr. Antony V. Samrot, Department of Bio technology
	MABMS, Indian Association Of Biomedical Sciences, MABMS	
11	BRFST has accorded grade A+ to the funded project on "Design of single pixel camera"	Dr. E. Logashanmugam, Department of ECE.
12	Best Project award by BARC, May 2008.	Dr. B. Sheela Rani Vice- Chancellor
13	ANNA AWARD, Govt. of Tamilnadu for best Service in PWD	Dr. K. Santhanam, Scientist- D, Centre for Water research
14	Young scientist award" Indian association of applied microbiology	Dr. M. Radhakrishnan Centre for Drug Discovery
15	Anand Rao Memorial Award Association of Applied Microbiologists Periyar University,	Dr. Vanaja Kumar, Centre for Drug Discovery
	IAAM Life time achievement award Swami Vivekananda award.-Indian Oriental Heritage, Kolkata	
16	ICMR post doctoral fellowship 2011-2013 (UK)	Dr. Jerrine Joseph, Centre for Drug Discovery
17	ANNA AWARD Govt. of Tamilnadu for Best Service in PWD	Dr. K. Venugopal Centre for Water research
18	Four Best paper awards at Oxford Instruments Plasma Technology SEM Micrograph Competition held in UK in 2014	Centre for Nanoscience & Nano Tech
19	Best Faculty Award by CTS	Dr. T. Sasipraba, Department of Information Technology

20	Best paper award in International Conference on Simulation Modeling and Analysis (2011) – Amrita University, Coimbatore, TamilNadu	Mrs. D. Susitra, Department of EEE
21	Best paper award in International conference on circuits, power, communication technologies-ICCPCT (2013),NIU,Nagercoil,Tamilnadu	Mr. K. Vasanth, Department of EEE
22	National CHESS Tournament in Kerala. National Rank 5264 World Rank 98990 Asia Rank 11155, National Rating: 1325	R. Raghavan, Department of EEE
23	Best Paper Award (International conference on Patent Recognition & multimedia signal processing - 2015)	Mr.Sreejith L.Das, Department of ETCE
24	Best Paper Award, International Conference On Control, Instrumentation, Communication and Computational Technologies – 2014	Mr.T.Bernatin, Department of ETCE
25	Best Paper Award, International Conference on Circuits, Power and Computing Technologies-2013	Mr.V.Vedanarayanan, Department of ETCE
26	Best Paper Award 2011, National Conference on Recent Advances in Communication, Electrical And Electronics and Information Technology-2011	Mrs.D.Jyothi Preshiya, Department of ETCE
27	Best Project award by BRNS for the project titled “Application of advanced signal analysis approaches for enhanced detectability of defects in thick walled weldments by ToFD and correlation with high sensitivity radiography and with other advanced NDE techniques” 2008/36/04-BRNS/250 Dt. May 22,2008	DR.B.SHEELARANI, Department of E & I
28	ENACT 2011, Sathyabama University, Best paper award	Ms.S.Poornapushpakala, Department of E&C
29	ENACT 2010, Sathyabama University, Best paper award	Mrs.V.Manonmani, Department of E&C
30	NCVEC – 12, Kalasalingam University, Best paper award	Dr.A.Sahaya Anselin Nisha, Department of E&C
31	Included in Marquis Who is Who in the world 2014 edition.	Dr. A.Annam Renita, Dept of chemical

32	SBTI 2009 KAPL Award for the best original paper presented (Oral) on Industrial biotechnology, Annual Meeting of Society for Biotechnologists, Silver Jubilee celebrations of VIT.	Dr.S.Anuradha Jabasingh, Dept of chemical
	IYSC 2010 Best Poster award for the best poster on Biotechnology, 2 nd Indian Youth Science congress, SRM University	
	IET 2011 Best Research Paper Award for best research paper, IET UK-MGR University.	
	Included in Marquis Who is Who in the world 2013 edition.	
33	Best Lecture Award in 2013 for the Lecture "Plastic waste management" Indian Institution of Engineers, IIE-Trichy division.	Mr.M.Arul Jayan, Dept of chemical
34	Honored with Fellow of Natural Resources and Society (FNRS), from the International society of Conservation of Natural Resources	Dr. Anima Nanda, Dept of Bio medical
	Best Paper award in 16 th NCA (2010), Indian Aerobiological Society, New Delhi	
	2 nd & 3 rd Prize for best paper award (research scholar cont.) (2011), Periyar University, Salem	
	Best paper award (Research Scholar cont.) (2012), Dept. of Physics, Sathyabama University, Chennai	
	Best paper award (Research Scholar cont.) (2014), Bharathidasan Institute of Technology, Trichy	
35	2 nd Prize for best paper award (2011) – National conference, Periyar University, Salem	Dr. T SUDHAKAR, Dept of Biomedical
	2 nd Prize for best paper award (2012)- International conference, Annamalai University, Chidambaram	
	Best paper award (2013) - National conference, Annamalai University, Chidambaram	
	Best paper award (2013) - National conference, Maher University, Chennai	
36	Best paper award in Oral presentation (2009) – National Conference (MEDBTCR), I ISC Bangalore	Dr. D. ALEX ANAND, Depart of Biomedical

37	Awarded the William P. Lowry Student Travel Award at the International conference on Urban climate, Goteborg, Sweden – 12th – 16th June 2006.	Dr. Lilly Rose Amirtham,, Dept of Arch.
	Awarded the Best Paper Award for the paper titled “Sustainable Design Through Assessment of Thermal Comort in Urban Street Canyons” in the session “Smart and Intelligent Buildings” at the International conference on Emerging Challenges on Design and Manufacturing Technologies – 2007,Chennai – 28th – 30th November, 2007.	
	Awarded the Best Paper Award for the paper titled “Thermal Behaviour of Double Skin Facades: A Case in IT Buildings” at the International conference on Emerging Scenarios in Space Technology and Applications, 2008, Chennai, 13th –15th November, 2008.	
	Awarded the International Association for Urban climate (IAUC) Conference Award sponsored by the European Space Agency (ESA) at the 7th International Conference on Urban Climate (ICUC-7) 29th June – 3rd July 2009, Yokohama, Japan.	
	Awarded the Best Paper Award for the paper titled “Impact of urbanization on the thermal comfort conditions in the hot humid city of Chennai, India” at the International Conference on Recent Advances in Space Technology Services and Climate Change, (RSTSCC), 2010, Chennai – 13th – 15th November, 2010.	
	Awarded the ICUC8 Bursary Support at the 8th International Conference on Urban Climate – ICUC8 and 10th Symposium on the Urban Environment, Dublin, Ireland, 6th - 10th August 2012.	
38	Best faculty/Scientist awards for merit by Sathyabama University, 2015	Dr.Vinita Vishwakarma
39	Best paper in EAPP-2016 International Conference	Ms.U. Sudha, Dr.Vinita Vishwakarma, Mr.D.Ramachandran
40	Best paper in EAPP-2016 International Conference	Mr. Vengatesh, Mr.C. Karthik Kumar, Dr.T.S. Shyju and Dr.Vinita Vishwakarma
41	Best paper in Corrosion awareness day, 8 th April, 2016	Ms.U. Sudha, Dr.Vinita Vishwakarma, Mr.D.Ramachandran
42	Best paper in CORCON, 19-21 st December, 2015	Ms.U. Sudha, Dr.Vinita Vishwakarma, Mr.D.Ramachandran

43	Best paper in Corrosion awareness day, 17 th April, 2015	U. Sudha, Vinita Vishwakarma, D. Ramachandran,
44	Best Poster Paper Award : "Influence of Substrate Temperature on the Adhesion Property of YSZ Coatings on Inconel 718 Prepared By EBPVD" Internatl. Conf. on Recent Advances In Nano-Science And Technology (RAINSAT-2015), July 8-10, 2015, Sathyabama University	Dr.P.Kuppusami, Ms.T.Dharini, Mr.Ajith Kumar Soman, Mr.A.M. Kamalan Kirubaharan, Mr.Arul Maximus Rabel
45	Best Oral Paper Award : Thermal Expansion Behaviour of Electron Beam Evaporated Cubic YSZ Coating on Alloy-690, International Conference on Recent Advances in Nanoscience and Nanotechnology (RAINSTAT-2015), July 8-10 th , 2015, Sathyabama University, Chennai-600119.	Mr.Kamalan Kirubaharan, Mr.D. Ramachandran and Dr.P. Kuppusami
46	Concurso Fondecyt Postdoctoral Fellowship, University of Concepción, Chile.	Dr. T. Shyju
47	Concurso Fondecyt Postdoctoral Fellowship, University of Concepción, Chile.	Dr. J Ramkumar
48	Best Oral paper Award: Electrochemical Performance of Ni-GDC Anode Material for Intermediate Temperature Solid Oxide Fuel Cells, International Conference on Nanoscience and Nanotechnology for Energy Applications, June 27 th -29 th , 2016, Sathyabama University	Ajith Kumar Soman and P. Kuppusami
49	DST-SERB- Startup research grant (Young Scientist) 2015	Dr. Vinitha Ebenezer
50	DST-SERB- Startup research grant (Young Scientist) 2015	Dr. Vinu Siva
51	DST- Women Scientist-A (2016)	Mrs. Reenu Mary Kuriakose and Dr.J Brijitta (Mentor)
52	DST- SERB Early Career Research Award(2016)	Dr. S. Prakash
53	Fulbright-Nehru Post Doctoral Research Fellowship 2016 -2018	Dr. S. Prakash
54	Best paper award - Regional seminar on Advanced trends in zoological trends 16 February, 2016 - New College Chennai 2016	Mr. S. Umer Khalifa
55	National Excellence Award – Nano-biomedicine (2015) Life-Science Foundation of India & Integral University, Lucknow	Dr.K.Govindaraju, Scientist 'C'
56	Outstanding Researcher Award, 2015 in the category of Animal Science, by Venus International Foundation, Chennai – 600 088. On 4.6.2015.	Dr. R. Selvaraj

57	Young Scientist Award – 2016 From The Aufau International Award during 2 nd National conference on fundamental and applied chemistry, on 4th June 2016 at Hotel Silver Palace, Salem, India	Dr.D.Sivaraman
58	Dr.A.P.J. Abdul Kalam Young Scientist Award – 2015 From Tamil Nadu Press and Media council Annual Meeting held on 26 th September -2015 at Salem, Tamil Nadu,India.	Dr.D.Sivaraman
59	Bharat Gaurav Award, India International Friendship Society (2015)	Dr. Jayshree Nellore
60	11 th National Conference of Indian Association of Applied Microbiologists, Young Scientist Award	Dr. M. Radhakrishnan
61	9 th National Conference of Indian Association of Applied Microbiologists, Anand Rao Memorial Award	Dr. M. Radhakrishnan
62	National Conference of Indian Association of Applied Microbiologists, Lifetime Achievement Award	Dr. Vanaja Kumar
63	Indian Oriental Heritage, Kolkota “Swami Vivekananda Lifetime Achievement award”	Dr. Kunal Das
64	Postdoc fellowship, Indian Council of Medical Research, Aberdeen University (Scotland) and Birbeck University (London) UK	Dr. Jerrine Joseph
65	Postdoc fellowship, National University of Singapore	Dr. Krupakar Parthasarathy
66	Out Standing Research Award in the Category of Animal Science by Venus International Foundation on 4 th June 2015.	Dr. R. Selvaraj
67	Young Scientist Award – 2016 From The Aufau International Award during 2 nd National conference on fundamental and applied chemistry, on 4th June 2016 at Hotel Silver Palace, Salem, India	Dr. D. Sivaraman
68	Dr.A.P.J. Abdul Kalam Young Scientist Award – 2015 From Tamil Nadu Press and Media council Annual Meeting held on 26 th September -2015 at Salem, Tamil Nadu,India.	Dr. D. Sivaraman
69	DST Inspire Fellow 2010	Dr.Kunal Das
70	Young Scientist Award by Ministry of Earth Sciences dt: 27 th July 2016	Dr. Anoop Kumar Mishra
71	Best Scientist Award by Deccan Environmental Research Organization.	Dr. V.E.Nethaji Mariappan

3.4.5 Indicate the average number of successful Ph.D scholars guided per faculty during the last four years. Does the university participate in shodganga by depositing the Ph.D theis with INFLIBNET for electronic dissemination through open access?

Our University is focussed towards research and encourages research scholars to take up research in thrust areas. The following table depicts the average number of successful Ph.D's awarded during the last five years. The INFLIBNET for electronic dissemination has been initiated and the electronic conversion of the PhD theses is under progress

Year	Trend of PhD degree awarded in the last four years
2011	36
2012	29
2013	61
2014	84
2015	98
2016	119 as on 19.8.2016

3.4.6 What is the official policy of the University to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.

The University follows certain strict policies/rules to check malpractices & plagiarism in research

- Research scholars are strictly advised to follow professional ethics.
- They are forewarned that plagiarism leads to cancellation of their research work.
- They are advised to publish in Referred Journals/Conferences only after checking for plagiarism.
- Before submitting thesis, originality in research is verified by supervisor.
- A committee is formed under the leadership of Vice-Chancellor to take actions against such cases.

From 2004 to till date, 5 plagiarism cases were reported. A committee is constituted to verify the level of plagiarism. Based on the recommendations of the committee, the registration is cancelled.

3.4.7 Does the University promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavours?

The University believes in inter-disciplinary approach for any kind of research activity. The staff and students are encouraged to involve themselves in collaborative research between departments. One such example of Interdisciplinary research is the development of SATHYABAMASAT – a Nano Satellite. This Satellite was developed by the staff and students of specialization including Mechanical, Aeronautical, Electronics and Automobile Engineering. The University has many other interdisciplinary research in the areas of Molecular Biology, Nano science and Technology, Atmospheric Science, Climate Change, Ocean Technology, Bio-Technology and Engineering, Bio-informatics, Medicinal Chemistry, Energy research, and Material Science. The staff and students are encouraged to participate in workshops, seminars and other programmes of various departments. The departments and research centres of our University work together in solving various research problems and as a result 12 projects are sanctioned by research organizations to our University.

Participating departments	Total No.
SATHYABAMASAT – a Nano Satellite, Mechanical, Aeronautical, Electronics and Automobile Engineering	1
Master of Business Administration & Department of Mechanical & Production Engineering	1
Centre for Nanotechnology & Department of Physics	1
Department Of Electronics and Instrumentation Engg Department of Electronics and Control Engineering	1
Department Of Electronics and Instrumentation Engg Department of Electronics & Communication Engg	5

Department of Electronics and Instrumentation Engg, Master of Business Administration Centre for Ocean Research	1
Department of Automobile Engineering Department of Civil Engineering Centre for Ocean Research	1
Department of Mechanical Engineering Department of Civil Engineering	1

3.4.8 Has the University instituted any research awards? If yes, list the awards

The University has constituted a faculty research award to honor the best researcher for their contribution towards research activities and publications in referred journals. This award is given on 5th September every year. The reputed companies also identify Best Researchers and awards them every year. Besides recognizing the internal faculty members the University rewards outstanding researches and the contributors. National Science and technology Award for excellence .This award carries a citation, and a cash award of Rs 2 Lakhs. Receptients of the award include

- Dr. P. Ramarao, Chairman, Atomic Energy Regulatory Board
- Dr.M.H.Dhananjaya, Director, J.S.S. Maha Vidhya Peedam, S.A. College of Engineering Campus, Mysore.
- Dr. Manju Sharma, Secretary, Dept. of Bio-Technology, Ministry of Science & Technology
- Dr.R.Chidambaram, Chairman, Atomic Energy Commission, Secretary, DAE.
- Dr. Mashelkar, Director, Council for Scientific & Industrial Research.
- Dr. K. Kasturi Rangan, Chairman, Indian Space Research Organisation.
- Prof. V.S. Ramamurthy, Secretary to the GoI, DST, New Delhi.
- Dr. Madhavan Nair, Chairman, Indian Space Research Organisation
- Dr.Sivathanupillai, Distinguished Scientist&Chief Controller,R&D,DRDO

3.4.9 What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?

Sathyabama University encourages its faculty to involve actively in research and development activities by sponsoring the faculty and students for attending national / international conferences and workshops. The University also supports for publications in referred international/national journals. In addition annual incentive is provided to the faculty members who receive sponsored research projects. The research scientists are recruited to exclusively focus on R & D activities only and they are not allocated with regular academic curricular activities. The teaching faculty who are implementing research projects get remission in their teaching workload.

3.6 Consultancy

3.5.1 What is the official policy of the University for Structured Consultancy? List a few important consultancies undertaken by the University during the last four years.

The facilities and the expertise available in the University to carry research in the areas of Science & Technology are highlighted. Terms and conditions are formulated and non-disclosure agreements are signed between the parties. The University's networking with research organisations and industry facilitates the promotion of consultancy activities. The sophisticated equipments available at the centres are utilized by scientists, research scholars and post graduate students and scientists from R & D organization / industries. Following are the consultancies offered by the faculty members to the various organizations during the last four years

School of Computing
<ul style="list-style-type: none"> • WIPRO (Training for Placed student, Wipro Employees, selected candidates) • Adyar Cancer Institute Automatic Patient Reminder System Automatic Patient Reminder System • 108 Emergency Services: Auto Alert System For 108 Emergency Services
School of Electrical and Electronics
<ul style="list-style-type: none"> • Converteam : The Power conversion company, Chennai (Executive development program – as an “Engineering refresher course) • QMAX Test Equipments Limited- Design of user friendly GUI in circuit functional test module for Automatic test Equipment. • Thermal properties of Concrete for Thermal Energy storage Applications • IGCAR, Waveguide Technologies • Design and Development of biometric systems • Sathyabama university & UGC- Training to faculties on ‘Modern MOS technology- Tools and design’
School of Mechanical Engineering
<ul style="list-style-type: none"> • I-CADD TECH- Training • SAB Training Centre
School of Building and Environment
<ul style="list-style-type: none"> • Maxon Power Pvt.Ltd., Coimbatore Thermal properties of Concrete for Thermal Energy storage Applications
Centre For Remote Sensing
<ul style="list-style-type: none"> • C-WET <ul style="list-style-type: none"> ➤ Deriving forest cover maps of Karnataka and Maharashtra ➤ Creating a Digital database of Tamilnadu (Base map & Land Use/Land Cover Map) using Remote sensing and GIS ➤ Extracting of Geographical Coordinates of Wind Mills in Tamil Nadu using satellite data ➤ Creating a Digital database of Uttrakhand and Karnataka ➤ Extracting of geographical coordinates of wind mills for six states (Maharashtra, Karnataka, Andhra Pradesh, Gujarat, Rajasthan, & Uttarakhand/MP)

- **FCRI**
 - Data Analysis and Interpretation by Cartosat Imageries
- **NRSC**

International Research Centre

- Vikram Sarabhai Space Centre (VSSC), Trivandrum
- ISRO Satellite Centre (ISAC), Bangalore
- Renault Nissan Technology and Business Centre India Pvt. Ltd., Chennai.
- Bhabha Atomic Research Centre, IGCAR, Kalpakkam
- Johnson & Johnson Limited, Chennai.
- Maxon Power Pvt. Ltd., Nanganallur, Chennai.
- Central Leather Research Institute (CLRI), Chennai
- Central Institute of Plastics Engineering & Technology
- FLSmith, Chennai.
- Gabriel India Pvt. Ltd, Hosur.
- Kemin Industries, Chennai.
- Bimetal Berring Ltd, Huzur Gardens, Sembaiam, Chennai
- International Lab Services, Mambalam, Chennai
- Indian Council of Agricultural Research, New Delhi.
- Indian Piston Ltd., Chennai.
- IP Rings Ltd., Malankarai, Tamilnadu
- National Metallurgical Laboratory (NML), CSIR, Taramani
- Orchid Chemicals & Pharmaceuticals, Chennai
- Race TRIN Steeling System, Chennai.
- Nano Therapeutics Pvt. Ltd, Gujarat.
- Severn Glocon India Pvt. Ltd., Chennai
- SPEL Semi conductor Limited, Chennai

3.5.2 Does the University have a University-industry cell? If yes, what is its scope and range of activities?

Yes, The University collaborates with industries like IT companies, automobiles, ceramics, chemicals, coatings, pharmaceuticals, health care organizations etc, through its **University-Industry Interaction cell (UIC)**.

The activities of the UIC includes

- Training industrial persons.
- Teaching and non-teaching faculty are trained to align students for Industrial needs.
- Power lectures are arranged to share the expertise of industrial personnel with students and staff.
- Industrial visits for the students.
- Entrepreneurship skill development programs.
- Soft skill training is provided for the students by industrial experts.
- In-house development of products in consultation with industry.

3.5.3 What is the mode of publicizing the expertise of the University for Consultancy Services? Which are the departments from whom consultancy has been sought?

The mode of publicizing the expertise of the University for consultancy services are by conducting University-industry meet, project exhibitions, workshops, conferences, website advertisements and through e-mail communication. The online registration is performed through our University website. The School attract consultancy in their area of specialization. The School of Computer Science and Engineering, School of Electronics and Communication Engineering, School of Mechanical Engineering, School of Science and Humanities, Centre for Ocean Research, Centre for Water Research, Centre for Nano Science and Centre for remote sensing are actively involved in

consultancy services. Centre for Drug Discovery and Development is actively involved in consultancy work for public and private organizations and helps them to screen their lead compounds for anti TB and anti HIV activity. This facility is first of its kind in India.

3.5.4 How does the University utilize the expertise of its faculty with regard to consultancy services?

The University provides a broad range of consultancy services and possesses the expertise to offer professional guidance in areas such as Nano technology, biotechnology, engineering, bioinformatics, genomics, ocean research etc. In addition to consultancy services that cater to the need of the industries, our faculty members are also encouraged for offering services for various societal needs. Some of the consultancies which has even addressed societal issues are mentioned below

- A holistic care to residents of Muttom village, Kanyakumari district with special medical conditions through the synthesis of alternate therapeutic practices along with mobile medical facility.
- People at Muttom are provided with seaweed cultivation both for the purpose of livelihood and for the research work and thereby such outreach programmes are integrated with the academic curriculum.
- **Centre for Remote Sensing** invites school students from the rural areas of Kanchipuram district for providing awareness programmes on Remote Sensing and GIS. Through this programme scientists teach basic principles of electromagnetic spectrum intriguing basic principles of physics including satellite technology, agrometeorology and its importance in sustainable development. Such exposure would certainly aid them in

mapping natural resources from satellite data. Such programmes are conducted regularly for the benefit of the society.

- Training programs for engineers of nuclear industries are offered by **Centre for NDE** to create awareness on NDT methods, fundamentals, discontinuities in different product forms, importance of NDT, applications, limitations of NDT methods and techniques and codes, standards and specifications related to non-destructive testing technology. NDT certification programs at different levels are conducted to produce qualified welders.

Thus consultancies are offered not only on payment basis as a part of revenue generation but also towards upliftment of the people in the society to which it belongs to.

3.5.5 List the broad areas of consultancy services provided by the University and the revenue generated during the last four years.

The University provides consultancy services and offers professional guidance in the following fields

- Land cover mapping, continuous monitoring of coastal shores, campus GIS development and demonstration
- Sample characterization of Nano materials
- Reverse engineering of electronic PCBs
- MATLAB Software Tools
- CNC Milling
- Planning and design
- Rehabilitation
- Pollution control
- Transesterification

The faculty members could claim their strength in the field of expertise with their rich years of experience and knowledge. Around **2 Crores** revenue have been generated through consultancy services.

School of Computing	
<ul style="list-style-type: none"> • WIPRO (Training for Placed student, Wipro Employees) • Adyar Cancer Institute Automatic Patient Reminder System Automatic Patient Reminder System • 108 Emergency Services: Auto Alert System For 108 Emergency Services 	Rs 10,00,000/-
School of Electrical and Electronics Engineering	
<ul style="list-style-type: none"> • Converteam : The Power conversion company, Chennai (Executive development program – as an “Engineering refresher course) • QMAX Test Equipments Limited • Thermal properties of Concrete for Thermal Energy storage Applications • IGCAR, Waveguide Technologies • Design and Development of biometric systems • Sathyabama university & UGC- Training to faculties on ‘Modern MOS technology- Tools and design’ 	Rs 17,03,000/-
School of Mechanical Engineering	
<ul style="list-style-type: none"> • I-CADD TECH- Training • SAB Training Centre • Reengineering for Mechanical Seals • Crash Analysis, IIT 	Rs 3,03,000/-
School of Building and Environment	
<ul style="list-style-type: none"> • Maxon Power Pvt.Ltd., Coimbatore Thermal properties of Concrete for Thermal Energy storage Applications 	Rs 5,00,000/-
School of Business Administration	
<ul style="list-style-type: none"> • NLC, Neyveli 	Rs 13,50,000/-

<p>Centre For Remote Sensing</p> <ul style="list-style-type: none"> • C-WET <ul style="list-style-type: none"> ➤ Deriving forest cover maps of Karnataka and Maharashtra ➤ Creating a Digital database of Tamilnadu using Remote sensing and GIS ➤ Extracting of Geographical Coordinates of Wind Mills in Tamil Nadu using satellite data ➤ Creating a Digital database of Uttrakhand and Karnataka ➤ Extracting of geographical coordinates of wind mills for six states (Maharastra, Karnataka, Andhra Pradesh, Gujaraj, Rajastan, & Uttarakhand/MP) • FCRI & NRSC <ul style="list-style-type: none"> ➤ Data Analysis and Interpretation by Cartosat Imageries 	Rs 37,83,303/-
International Research Centre	
<ul style="list-style-type: none"> • Vikram Sarabhai Space Centre (VSSC), Trivandrum • ISRO Satellite Centre (ISAC), Bangalore • Renault Nissan Technology and Business Centre India Pvt. Ltd., • Bhabha Atomic Research Centre, IGCAR, Kalpakkam • Johnson & Johnson Limited, Chennai • Maxon Power Pvt. Ltd., Nanganallur, Chennai. • Central Leather Research Institute (CLRI), Chennai • Central Institute of Plastics Engineering & Technology • FLSmith, Chennai. • Gabriel India Pvt. Ltd, Hosur. • Kemin Industries, Chennai. • Bimetal Berring Ltd, Huzur Gardens, Sembaiam, Chennai • International Lab Services, Mambalam, Chennai • Indian Council of Agricultural Research, New Delhi. • National Metallurgical Laboratory (NML), CSIR, Taramani • Orchid Chemicals & Pharmaceuticals, Chennai • Race TRIN Steeling System, Chennai. • Nano Therapeutics Pvt. Ltd, Gujarat. • Severn Glocon India Pvt. Ltd., Chennai • SPEL Semi conductor Limited, Chennai 	Rs 1,06,20,881/-
Total	Rs 1,92,59,911/-

3.7 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the university sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.

The University as a part of its regular academic curricular activities insists a sense of institutional Social Responsibility to its faculty and students. The outcome of such sensitization has resulted in several outreach programs and activities. A few are highlighted below

- Various training programmes have been organized for the corporates from different industries every year on several aspects of science and technology. Conceptual and practical sessions are handled by our expert faculty. The programs are framed on the current trends of the user community. The university has conducted around 25 such programmes in the recent past.
- Engineers from nuclear industries are trained by **Centre for NDE** to understand the basic principles of various NDT methods, discontinuities in different product forms, importance of NDT, applications, limitations of NDT methods and techniques and codes, standards and specifications related to non-destructive testing technology. NDT conducts certification programs for welders.
- Workshops and training programmes are conducted for scientists using specialized softwares. The objective of such programmes is to train the participants in planning and implementation of information systems projects.
- **Remote Sensing Centre** invites school students from the rural areas of Kanchipuram district for creating awareness on remote sensing and GIS.

Through this programme the basic principles of electromagnetic spectrum and intriguing basic principles of physics including satellite technology are taught to the students. As a part of ISR the centre has created community awareness on protection of natural resources by optimizing the technological approaches that would ensure sustainable development. Such programmes are conducted throughout the year for the benefit of the society.

- Our University has organized several workshops for the self help group, unemployed women on computer literacy like Tally, MS office to enable them to equip them with basic e-knowledge.
- Programs are organized on mushroom cultivation, handicrafts, food processing and on cottage industry products to empower women to become micro entrepreneurs. Also awareness is created on government schemes for acquiring soft loans, avenues available for small businesses, time management and financial literacy.
- The University houses a Technology Business Incubator through which it serves the nearby rural community by providing skill development and promoting employment opportunities.
- The TBI provides infrastructure and financial support to unemployed youth who have innovative ideas this enables them to incubate their idea and become independent entrepreneurs.
- The University provides services to the marginalized and down trodden community of the nearby coastal villages. Fisherwomen from the coastal areas are trained in seaweed cultivation for alternative livelihood.

Thus the above are some of the outreach programmes that our University has integrated with academic curriculum.

3.6.2 How does the university promote university-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?

Sathyabama University have developed and evolved STUDENT DEVELOPMENT CELL (SDC) with the objective of bridging the gap between the academia and the corporate world. The aspiring minds can come and enrich their skills together through these clubs such as Design, Science, Literary, Robotics, Mathematics, Aeromodelling, computer Science and Community Development cell.

SDC is a group of ignited minds clustered together to provide regular inputs for the complete development of a student by making him / her get prepared to face all the challenges laid down by the competition in the Corporate Industry. The critical skills are identified from the current global job market especially in a Dynamic era of Technology that is needed to reach the peak. Sathyabama University realizes and understands that a quality budding technocrat can envision the growth and development of the nation. Therefore, the inculcation of competitive skills among the students are two faceted: to produce quality Managers and to develop their knowledge of understanding values and skills.

The Student Development Club offers information of all the activities. Student clubs are formed as a way for Sathyabama University students to engage with skill oriented activities outside the classroom. Activities of the clubs develop skills required to struggle and to get succeeded in the challenging milieu. The clubs listed are not associated with any particular academic pursuit. SDC is keenly engaged in searching for opportunities to expose the students' real skills needed for the outer world.

Community Development Club (CDC) students have taught mathematics and science to the children of government higher secondary school, Guduvanchery (adopted by Sathyabama University). CDC students have provided the infrastructural requirements of the school by setting up a computer laboratory,

planned and improved the sanitation and water facilities of the school. The public addressing system was also provided by our University to the school.

- Awareness programme on disaster management was conducted for the students by an NGO.
- Members of community development club visited Astinapuram school and celebrated Independence Day. Books and sweets were distributed among the students. Our University sponsored a computer laboratory facility for the students.
- Students of Sathyabama University took part in the FAMINE RUN, a marathon conducted in Marina beach on 31st August 2013 by WORLD VISION.
- A light music was organized by help a child the music concert (by children for children) where 500 balcony tickets were sponsored by the Sathyabama university to the underprivileged students on 24th November 2013.
- The University is committed to provide holistic care to individuals of **MUTTOM village**, Kanyakumari district with special medical conditions through alternate therapeutic practices along with mobile medical facility. Thus various outreach programmes are organized by the University as ISR activity **towards** community.

3.6.3 How does the university promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International programmes?

The University functions with a view to inculcate the spirit of social and civil consciousness and to promote a good value system among the students, to render their service to the society

NSS: The university adopts one or two villages every year to give new ideas of development to the villagers which would improve their living conditions. NSS

volunteers disseminate information about the latest developments in agriculture, watershed management, wastelands development, non-conventional energy, low cost housing, sanitation, nutrition and personal hygiene, schemes for skill development, income generation, government schemes, legal aid and consumer protection rights through literacy programmes. Apart from this, awareness on small family norms, health education, small savings drives etc are conducted. Sensitization on non-formal education, general literacy classes and economic development activities are encouraged. Hobby centres in rural areas are established. The NSS programme officers plan activities in the adopted village or slum in such a way that the leisure time of the NSS volunteers can be utilized in the service of adopted village or slum. Week-end visits to the adopted areas provide suitable opportunities to live with the community and know their problems and make an earnest effort to do something for them. Regular follow up is carried out in the areas. The NSS volunteers were also involved in tree plantation, regular dental check up for first year students, distribution of stationery to government school students, etc. Yoga day is also regularly celebrated every year.

NCC: The **NCC** is open to all regular students of the university on a voluntary basis. The cadets have no liability for active military service. NCC camps are being conducted twice in a year. Camps are of various types and each serves a different purpose. The camps are of 10-12 days duration and the cadets receive intensive practical and theoretical training. This includes: annual training camps and national integration camps .Various other activities includes traffic signals/control training, first aid techniques, handling disaster situations, social evil awareness programmes (child labour, dowry, primary education), housekeeping, youth exchange programme, sports training, cultural activities, cycle rallies and community development programmes. Besides sponsored students from various NGO's are given free education.

YRC: The Youth Red Cross of the University actively takes part in the disaster and emergencies management evacuation programmes of the vulnerable people and communities. The mission of YRC is to inspire, encourage and initiate the youth to take up all forms of humanitarian activities so that human suffering can be minimized and even be prevented and thus contribute to creating more congenial climate for peace. The Youth Red Cross of the university regularly conducts blood donation camps twice a year and maintains blood donors database.

3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the university to ensure social justice and empower the underprivileged and the most vulnerable sections of society?

The University has undertaken several social surveys, research and extension activities to deliver social justice towards the underprivileged of the society. The research Centres have actively involved in organizing extension activities. Some of the programs organized are listed below

- The centre for ocean research promotes the social upliftment through cultivation of seaweeds *Kappaphycus alvarezii* for **fishermen widows** in coastal villages of Kanyakumari viz. Kadiapattinam, Muttom and Pillaithopu. This cultivation of algal programme generates a permanent income for the underprivileged society.
- The University with the help of **INCOIS**, Ministry of Earth Sciences, Govt. of India has installed an electronic display board in the fishing harbour premises, equipped with GSM communication facility, siren alert system, ocean state forecast and online playback of voice messages, for dissemination of PFZ Advisories and other ocean information in the local language to benefit fisher folk engaged in fishing activities in this area

Popular Lecture Series is the dissemination and use of biotechnological process to create new employment avenues, training and demonstration projects involving bio-fertilizers, bio-pesticides, sericulture, aquaculture, mushroom cultivation, spirulina production and vermi composting. These programmes will nurture socio-economic upliftment of target population. The program aims at strengthening the technological update for school/college students.

3.6.5 Does the university have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?

The students who are involved in these activities are monitored by the concerned staff in charge of that activity. Further, to motivate student's involvement on activities that promote citizenship roles, recognition awards have been given for glorious activities like participation of cadets in Republic Day Parades, representation of University or State in sports and games etc. The endowment awards are also given to the male and female.

Sathyabama University has constituted a Community Development Cell (CDC) which is a part of the Student Development Cell. It is headed by a faculty and has a student president and vice-president. It monitors the students' social activities. Awards are given to the students who actively involve themselves in such activities

3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students' academic learning experience? Specify the values inculcated and skills learnt.

The students are exposed to the real time problems of the society through these extension activities. These supplementary activities add value to the academic learning, every evidently these activities help the student to improve their

- Practical knowledge
- Hands on experience
- Communication skill
- Adoptability to socio-environmental conditions
- Organizational skill
- Community involvement
- Crises management ability
- Civic sense
- Commitment to nation building
- Leadership quality,

The above mentioned are some of the qualities and attributes, the students acquire through such extension activities.

3.6.7 How does the university ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the university which have encouraged community participation in its activities.

The University through its outreach activities contributes to the community development through knowledge transfer, skill development and awareness creation thus ensuring participation and development of the community.

The initiatives taken towards involving community participation includes

- Free health camps are organized by the department of dentistry for the neighbourhood community.
- Sea weed cultivation methodology are taught to muttom village fishermen by the centre of Ocean Research
- INSPIRE programs are conducted to the toppers of nearby schools.

- Department of Aeronautical engineering conducts aero design; competitions every year to the nearby school children
- “Brainstorm”- Interschool Quiz competition is conducted every year for the school students.

The outcome of the initiatives has resulted in sustainable livelihood for the unemployed, Skill development, Computer literacy, counseling, Banking project preparation, training for the school teachers etc..

3.6.8 Give details of awards received by the institution for extension activities and/contributions to social/community development during the last four years.

The university has received awards and recognitions in various academic fields and also in community development activities. Following are the some of the awards received by the university in the recent past.

- **National Education Excellence Award:** Sathyabama University has been awarded the National Education Excellence Award - 2014 for the category - University promoting Science and Technology - South. The award is being instituted by Associated Chamber of Commerce and Industry of India, Planning Commission, Govt. of India, Ministry of Human Resource Development, National Skill Development Corporation and Association of Indian Universities.
- **Centre for excellence in energy research** by Ministry of Human resource Development – 2014
- **Social Outreach Award** among Educational Institutions
- **ECONS AWARD** for Contribution to community – 2015
- **ECONS AWARD** for Research – 2015
- **Ranked No 10 for Research & Innovations** by Education World Magazine - 2015

- **CST & Solar Cooker Excellence Award 2016** by Ministry of New & Renewable Energy, Government of India for effectively using Concentrating Solar Technologies (CST) for community cooking in our University.
- **Youth Red Cross:** The Youth Red Cross of Sathyabama University has been awarded the Rolling Shield on 'National Voluntary Blood Donors Day' for securing the highest number of Blood donors for the Year 2011-2012. The Governor of Tamilnadu Honorable Dr.K.Rosaiah presented the award.

3.8 Collaboration

3.7.1 How has the University's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the University benefitted academically and financially because of collaborations?

The University's collaboration with various organizations has resulted in state-of-art equipments in each centre. The collaborative approaches have brought quality research to the forefront shortening the duration taken for products to be brought into human use. The few outcomes of collaboration has been mentioned below

- **208** sponsored research projects from Ministries and **79** consultancies and **127** sponsored training programmes/ workshops.
- Establishment of **13** specialized Centers for research activities to benefit the technical and societal causes.
- Indigenous products design and development such as teletector, eddy current flowmeter,
- Stand alone techniques for various problems identified in the associated industries/organizations
- Research databases were created and archived for access by the University and industries / Organizations.

- Sponsored workshops and guest lectures from eminent personalities of these industries
- Faculty has registered for Ph.D. programmes with topics addressing the real time problems identified by these organizations.

3.7.2 Mention specific examples of how these linkages promote

Curriculum Development

- **As part of MoU signed with Virtusa Technologies, Faculty of Computer Science Engineering has introduced 2 new courses to cater the needs of the software industry.**
 - Mobile Application Development (MAD) and Rich Internet Application (RIA) are added as elective subjects to students of CSE and IT. Mobile Application Development (MAD) is included as elective subject for final year BE (CSE) and B.Tech (IT). Mobile application development software like J2ME, Android, HTML5 and CCS3 are covered in the subject MAD.
 - Rich Internet application (RIA) is included as elective subject for pre-final year students of CSE and IT, which will help them to do projects in their final year.
- **The MoU with Qmax Test Equipments Pvt. Ltd., has resulted in Faculty of Electronics Engineering** to introduce a theory subject titled, “Test Engineering” and a practical course titled “Test engineering laboratory.”
- A post graduate programme on Green Engineering and Technology, pertaining to solid waste management was developed in association with NSWAI.

Internship

- The final year students are given internship for six months to execute their projects at Qmax Test equipments pvt Ltd, Chennai.
- The students of our Village resource centre have benefitted through the three month internship which included hands on training.
- A four day internship for the UG students was conducted during 18th - 21st October, 2011 in association with World Learning India, Rajasthan.

On –The - Job Training

- Faculty members of CSE and IT of our University were trained by Wipro Technologies so as to provide pre and post-campus training for selects of Wipro at our campus.
- The in-plant training on marine instrumentation in biotechnological research with mutual exchange of ideas and utilization of facilities is done with INCOIS

Faculty Exchange and Development

- Experts from **Cognizant Technology Solutions** give training to our faculty in the area of software engineering and software testing methodologies. Ten faculty from CSE and IT department attended this faculty development programme.
- Eleven of our faculty from CSE and IT department attended training in **Virtusa** for handling technical subjects and three employees from Virtusa handle theory and practical sessions for our students.
- Faculty, visit Q-Max test equipments Pvt. limited to acquire industrial knowledge and also train the new recruits of the company. The Engineers from Qmax visit our University centre for advanced electronic

test engineering in order to train our faculty and students in the test engineering area.

- VRC faculty conducts classes through video conferencing. Faculty exchange program takes place with Sri Ramachandra University for knowledge sharing.
- Every year considerable number of employees working in FLSmidth are pursuing PG course for upgrading their qualifications through faculty exchange programme.
- The training programmes were conducted by the MBA faculty members with industry experts to workers of Neyveli Lignite Corporation. The participants were enlightened in the areas like assertiveness, creativity, personal finance, budgeting, neuro linguistic programme to name a few.

Research

- **208** sponsored research projects and **79** consultancies and **127** training programmes/ workshops .
- Establishment of **13** specialized centres for research activities to benefit the technical and societal causes
- Research Outcomes (Publications /Patents)

Total Publication : **8479** (4508 – SCI Journals)
(874 – WoS Journals)

Book Chapters : 32

Books : 208

Patents : 37 Filed & 6 Granted

H- Index : 38

Consultancy

- The Qmax Pvt. Ltd has offered consultancy projects to our faculty to develop user friendly GUI In-circuit Functional Test Module for Automatic Test Equipment (ATE).
- Centre for Remote Sensing and Geoinformatics, in association with NRSC, Hyderabad regularly provide consultancy projects on advanced irrigation benefit programme using high resolution cartosat data.
- Consultancy projects are carried out by scientists of remote sensing on forest resource mapping of Karnataka and Maharashtra. Creating a digital database of Tamil Nadu (basemap and landuse and land cover) using remote sensing and GIS.
- Centre for Remote Sensing aids technical inputs on research activities as and when required by the scientist of wind energy.
- Consultancy projects are carried out by scientists of remote sensing in order to meet the project requirements for BHAVINI.
- Centre for waste management developed technologies for reutilization of waste from one Industry into a resource for another at Guindy Industrial Cluster.
- As an extension program, training courses are offered on soft skill, management principles, software etc for the employees sponsored by the Qmax Pvt. Ltd. The company also offers industrial visit to our students.

Student Placement

- The student who performs well during their Internship will be absorbed as trainees and later given a designation of design engineers in Q-Max Pvt.Limited.
- The outstanding students during their Internship in VRC will be absorbed as nursing assistant or lab technician in a regular basis in IGCAR hospitals.

3.7.3 Has the University signed any MoUs with institutions of national / international importance / other universities/industries/corporate houses etc.? If yes, how have they enhanced the research and development activities of the University?

Sathyabama University has established MoU's with government organizations, leading industries and research institutions all over the world. The following list of organizations / industries / research institutes which have signed MoU's with Sathyabama University are effectively being collaborated for research / consultancy and other academic activities .

LINKAGES (NATIONAL)

1. Indian Institute of Technology Madras (IITM), Chennai.
2. National Institute of Ocean Technology (NIOT), Chennai.
3. Central Leather Research Institute (CLRI), Chennai
4. Centre for Wind energy Technology (C-WET)
5. Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI), Chennai.
6. Central Ground Water Board, Chennai.
7. Neyveli Lignite Corporation Limited (NLC), Neyveli, Tamilnadu
8. National Institute of Technical Teachers Training & Research (NITTTR), Chennai.
9. British Council
10. Sri Ramachandra University, Chennai.
11. Institute of Electrical & Electronic Engineers Association (IEEE)
12. National Institute for Research in TB (NIRT), Chennai.
13. MSME Development Institute, Chennai.
14. Defence Research & Development Organisation (DRDO) New Delhi
15. National test House, Taramani, Chennai
16. CADD Technologies school of Design Pvt Limited, Coimbatore
17. Frontier Lifeline Private Limited, Chennai
18. MS Swaminathan Research Foundation, Chennai.
19. National Solid Waste Association of India (NSWAI), Mumbai.
20. Vikram Sarabhai Space Centre (ISRO), Trivandrum.
21. Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam.
22. Institute of Microbial Tech (CSIR), Chandigarh.

23. Combat Vehicles Research and Development Establishment (CVRDE), Chennai.
24. Liquid Propulsion Systems Centre, (ISRO), Trivandrum.
25. National Remote Sensing Centre, Hyderabad.
26. National Atmospheric Research Laboratory, (ISRO).
27. Institute of Plasma Research

LINKAGES (INDUSTRIES)

1. Orchid Chemicals & Pharmaceuticals Ltd., Chennai.
2. Infosys Tech. Ltd
3. Cognizant Technologies
4. Wipro Technologies
5. Emphasis
6. Qmax Test Equipments Pvt. Ltd
7. Accenture
8. Control Techniques India Pvt. Ltd Division, Emerson Industrial Automation, Chennai.
9. Computer Science Corporation India Pvt. Ltd., Chennai.
10. Virtusa, Chennai.
11. Jubilant Pvt. Ltd, Bangalore
12. Biozone Pvt., Chennai.
13. FL Smidth, Chennai.
14. Renault Nissan Technologies & Business Centre
15. Reliance Jio Infocom

LINKAGES (INTERNATIONAL UNIVERSITIES)

1. New Mexico Tech, USA
2. University of Alaska, USA
3. University of Montana, USA
4. Science & Tech. Dept. of the Republic of El Salvador, Central America
5. University of Rostock, Germany
6. University of Piraeus, Greece
7. Texas Tech university, USA
8. University of Central Florida, USA
9. Bradley University, USA
10. University of De Lorraine, France
11. Georgetown University, USA

12. Montana Tech of the University of Montana, USA
13. University of Leicester Science & Technology Vice Ministry, Republic of El Salvador, Central America
14. University of Craiova, Romania
15. University of Hong Kong, Hong Kong
16. Asia Pacific University, Malaysia
17. University of Concepcion, Chile
18. TSI University of Applied Science, Latvia
19. University of Southern Queensland, Australia
20. University of Westcliff, United States

LINKAGES (RESEARCH ORGANIZATIONS)

1. Helmholtz Zentrum Berlin (HZB), Germany
2. School of Ocean & Earth Science and Technology,
3. University of Hawaii, Hawaii.
4. Harvard Medical School, USA.
5. European Molecular Biology Lab (EMBL), Heidelberg.
6. University of Illinois, USA.
7. Plasmonic Nano Bubble Lab, Rice University, USA.
8. National Centre for Biotechnology Information (NCBI), Bethesda, MD.
9. Shizuoka University, Shizuoka Ken, Japan.
10. National Institute for Materials Science, Tsukuba, Japan.
11. Prof. Etelvina de Matos Gomes, University of Minho, Portugal.
12. Jeju National University, Republic of Korea.
13. The Swire Institute of Marine Science (SWIMS), Hongkong.
14. University of Hyogo, Japan
15. University of Arkansas, USA
16. Dartmouth College
17. University of Western Ontario, London,
18. UCD School of Chemical & Bio Process Engineering, University College Dublin, Ireland.
19. Nagoya City University, Japan
20. Department of Plant Biology, University of Ilorin.
21. United States Department of Agriculture (USDA) Wyndmore, Pennsylvania, Philadelphia, USA.
22. The Hebrew University of Jerusalem
23. The Rufford Foundation, London

24. National Institute for Materials Science (NIMS), Japan
25. University of Singapore (NUS), Singapore
26. Shizuoka University, Shizuoka Ken, Japan
27. University of Minho, Portugal
28. University of Louisiana, USA
29. Universidad Cato´lica del Norte, Chile
30. Clemson University, SC, USA
31. Malaysian Agricultural Resrach Institute.

3.7.4 Have the University-industry interactions resulted in the establishment / creation of highly specialized laboratories /facilities?

Sathyabama University has effective Institution - Industry interactions that resulted in number of sponsored projects. These interactions have later led to establishment of highly equipped research centers in association with industries and R&D organizations.

Name of the Centre In association with	Major Equipments
Centre for Remote Sensing & Geoinformatics ISRO	<ul style="list-style-type: none"> • A0 WIDECOM Colour Scanner SLC 1036C • A0 HP Colour plotter HP 500 • GPS Trimble Geo Xm • Trimble R3 DGPS Megallen Explorer 500 megallen Explorer 600 • Time Domaim Reflectometer • Plant Canopy Analyser • Tensiometer • Gypsum Block • Open Pan Evaporimeter • Rain Guage • Soil Thermometer (15,30 and 45 cm)

<p>Centre for Nanoscience & Nanotechnology</p> <p>IGCAR</p>	<ul style="list-style-type: none"> • Pulsed Laser Deposition (PLD) - Microtech Srl, Italy • RF Magnetron Sputtering - Plassys, France • DC Magnetron Sputtering - Hind High Vacuum • Thermal Evaporator - Hind High Vacuum, Bangalore • Chemical Vapor Deposition (CVD) - Mansha Vacuum Technologies, Bangalore • E-Beam Evaporator - Plassys, France • X-Ray Diffractometer - Rikagu, JAPAN • Field Emission Scanning Electron Microscope - CARL ZEISS, GERMANY • Atomic Force Microscope(AFM) - NTMDT, Ireland • Optical microscope - OLYMPUS, Japan • Epifluorescence Microscope - Nikon, Japan • Precision Cutting Machine - STRUERS, Denmark • Polishing Machine - STRUERS, Denmark • Ball Mill - Mansha Vacuum Technologies, Bangalore • Model 8050 UF Stirred cell- EMD Millipore Corporation, USA • Enspire Multimode Plate Reader-Perkin Elmer Singapore • Microtome RM2125RTS2-Leica, Germany • VIP Upright Freezer Model Igloo U445 (-86 °C)-Azbil Telstar Technologies, The Netherland • Ice Flaker Machine-The Netherland • Pharmaceutical Refrigerator 2~8°C-Hana Medical Supplies L.L.C, UAE • Biological safety cabinet BS Level II-Hana Medical Supplies L.L.C, UAE • Co2 Incubator Model 48 R, with High Temp. Disinfection and 1-19% O2-New Brunswick Scientific Co., USA • Concentrator Plus & Cooling Centrifuge-Eppendorf AG, Germany • Leica M 165 FC Fluorescence Stereo Microscope with Digital Camera-Leica Microsystems • UV-Vis NanoDrop Spectrophotometer- Thermo Fisher Scientific, USA • Preparative HPLC System with PDA Detector-Waters, Austria • Zebrafish Stand Alone Circulation Facility-Aquaneering Inc., USA • Bioanalyzer 2100 Desktop-Agilent Technologies, Wiesental • Micromanipulator FEMTO JET Express-Eppendorf Barkhausenwe, Germany
<p>Centre for Ocean Research</p> <p>NIOT</p>	<ul style="list-style-type: none"> • Fluorespectrophotometer, • Gas chromatography-mass spectrum, • Fully automated inverted research fluorescence microscope, • UV-vis spectrophotometer

Centre for Water Research	<ul style="list-style-type: none"> • GPS Receiver, Trimble Juno ST-Tracking points-10,000, Automatic Rain Gauge
Village Resource Centre ISRO	Plena mixer amplifier, receiver, camera, True Diversity Wireless Receiver, Microphone, LCD projector, Mobile Van for telemedicine
Centre for Earth & Atmospheric Sciences IGCAR	<ul style="list-style-type: none"> • 50m Instrumented Meteorological Tower, • Automatic Rain Gauge System
Centre for Quality Assurance & Non Destructive Evaluation IGCAR	<ul style="list-style-type: none"> • Ultrasonic Equipment Epoch 1000i • Infrared Camera FLIR T335, • Cavitation Detection Loop, • Magnetic particle Testing-AC/HWDC Yoke (SIMS-Y A/D), Portable Machine (SIMS –PS), UV light Test kit-UIV 100F
Centre for Advanced Electronic Test Engineering QMAX Test Equipments	<ul style="list-style-type: none"> • QT2256-320 PXI-Combination Board testers, • QT2216-MicroATE Semicon Tester, • CT-256 Panther Reverse Engineering System, • QT-200-Mixed Signal Functional test system, • QT900-Boundary Scan Tester, • QT25-Short locator
Centre for Laboratory Animal Technology and Research	<ul style="list-style-type: none"> • Binocular Microscope LED DM300, • Refrigerated Centrifuge, • Vertical Autoclave with ISI mark, • Bench top Sterilizer • Rodent Ventilator SAR-830/80 small animal ventilator, volume/pressure-cycled, with internal air pump. (CWE, USA) • Rodent Anesthesia Machine Model: Moduflex Labvet Non-rebreathing, for research & Lab Animal application. Includes Oxygen Flow Meter 0.1 - 4 lpm, selectatec manifold to for Isoflurane vaporizer (Dispomed, Canada) • Isoflurane Vaporizer temperature, pressure & flow compensated (Meditec, England) • Induction Chamber for Laboratory Animals. (Dispomed, Canada) • Vacuum pump for animal surgery (Vishnu Traders) • Surgical microscope with loop (Vishnu Traders) • Binocular Microscope LED DM300 (Leica) • Binocular Microscope LED Model: B159: (Optika) • CO₂ Incubator :capacity 80L & 150L models(Lark Innovative Fine Tek Knowledge) • Refrigerated Centrifuge, (Eppendorf) • Vertical autoclave with ISI mark (BIS 3829 Part III Marketing): Model-VT16 'Reico' Make

	<ul style="list-style-type: none"> • Bench top sterilizer: Model BT 256 NS ‘ Reico” Cylindrical Chamber-SS316 with ISI mark • Steam Jet: Steam spray gun for rack wash steam generator of suitable size with 2.5 meter flexible hose (insulated) with ISI mark Reico Make • Steam sterilizer 1250 liters volume, sliding double door (pneumatic operated) inbuilt vaccum pump, stainless steel stand, auto feed water pump, fully automatic cycle operation with printer (PERICLAVE, Mumbai) • Fully automatic blood cell counter Model BC 2800 (Vet) Cell counter – 3 part differential (MINDRAY) • Fully automated biochemistry analyzer Model BS 120: Spec – 120 tests throughput / hr. (MINDRAY) • Cold room – 2.65 D x 2.65 W x 2.39 H (Blue star) • Deep freezer Vertical (Up right) Model:EFS245 capacity:245 liters (Cryotech Refrigeration) • Ultra low deep freezer (-80°C) Upright type model: URC-V.325-4 Cryotech Refrigeration) • Microtome cutting range 1 – 50 microns in steps of 1 micron • Sonicator 9 Ltr - RIVOTECH • Hot Air Oven- Lab line 3 side heating – Memmert type with Inner SS and Analog Thermostat Control (Smart Sci.Company) • Incubator Lab line 3 side heating – Memmert type with Inner SS and Analog Thermostat Control (Smart Sci.Company) • Rat, mouse rota-rods & Rotometer (Vishnu Traders) • Air Handling Units for Animal House (General Instruments)
Centre for Drug Discovery and Development	<p>Autoclave, Binocular Microscope, Electronic Balance, Magnetic Stirrer with Hot plate, Heating Mantle, Micro centrifuge, Soxlet Heating Apparatus, Soxlet Apparatus Extractor and Condensers, Physical Balance, Refrigerator, Microwave oven, Induction Stove, Hot Plate, Centrifuge (Bench top), Laminar Airflow Cabinet, Incubator, Hot air oven, Rotary Shaker</p> <p>Refrigerated centrifuge, Phase contrast inverted microscope with camera, Luminometer, Inspissator, ELISA reader and washer, minus 80 Deep freezer, CO2 incubator, Biosafety cabinet type A2, Biosafety cabinet B2, Walk in cold room, Walk in Incubator room.</p>

Any other information regarding Research, Consultancy and Extension, which the university would like to include.

The University focuses on research in the emerging areas of science and technology. The academic programmes are designed and planned with the latest trends in the industry requirements. Research is undertaken in all branches of Engineering, Technology and in Science and Humanities. Interdisciplinary research and collaborative research with industry and academia partnership at the national and global level are encouraged by the university. These initiatives have yielded fruits in the form of research publications of good impact factor in both national and international journals. The University follows a code of ethics which is an integral part of any research across all the **24** departments and **13** dedicated research centres on campus. This is being followed to ensure honesty and responsibility in publishing research findings, Transparency in data findings. Creative and innovation leading to generation of Intellectual property as patents. Social responsibility to translate research to social welfare initiatives. Legality to abide by institutional rules and ethical transparency in publication and authorship sharing. To maintain the standards of quality reputation of the institute.

The University has produced 453 doctorates, generated **51** crores by way of sponsored research and implemented **208** sponsored research projects from the major **48** funding agencies like **DST, IGCAR, DRDO, BRNS, ICMR**, etc. The University has generated **1.92** crores from consultancy projects and **2.613 crores** through sponsored training programmes and workshop with the scientific and technical expertise of our staff. The University has published papers **8479** with **4508** publications in scopus / 874 in WoS Indexed Journal and h-Index of our University is **38.43** patents have been filed with **06** patents being granted. These are the significant achievements during the assessment period.

For Accreditation – Cycle : 2 Re-Assessment

PROGRESS AT A GLANCE

Progress towards the establishment of Undertaking Research and Development activities in emerging thrust areas of Science and Technology.

Research and Development Centres:

- As on date : 13

Sponsored Research Projects:

Particulars	National / International Level	
	Till Assessment period	As on date
Sponsoring Agencies	47	52
Sponsored Research Projects	147	208
Sanctioned Amount in Crores	26.23 crores	46.43 crores

Research Publications:

Particulars	Till Assessment Period	As on Date
Total No. of papers published (National / International)	6475	8479
Total numbers International Database (Scopus/WoS)	Scopus:2038 WoS:506	Scopus:4058 WoS:874
Citation Index Range	1 – 257	1-337
SNIP Range	0.01-3.01	0.01-3.01
SJR Range	0.02-2.958	0.02-2.968
IF Range	0.01-6.626	0.01-8.0
H index	31	38
Books	203	208

For Accreditation – Cycle : 2 Re-Assessment

PROGRESS AT A GLANCE (Contd...)

Number of Training and Consultancy Programmes with Generated Revenue:

- Till Assessment period :126 Programmes / Rs. 2.558 Crores
- As on date :206 Programmes / Rs. 4.5385241 Crores

Number of Patents

- Till Assessment period : 32
- As on date : 43 (6 granted / 37 Filed)

Number of linkages to promote curriculum development / research / consultancy/ extension/ student placement:

- Till Assessment period : 40
- As on date : 93

Extension activities:

- Various development and training programmes are nurtured where many students are motivated in the societal activities. The NSS and YRC teams are very active in conducting several camps and informative programmes and presently the students involve in all such activities with great interest. Village Resource Centre has introduced a mobile hospital and emergency services are offered.
- EDP for unemployed youth in coastal regions are undertaken, some of the programs on Mobile Repair Service, Laptop Repair and maintenance. Various skill development programmes like fitting, carpentry, Lab technician courses are conducted. Rigorous entrepreneurship training to fisherman widows are nurtured continuously as a part of extension activities.
- Student Development Cell (SDC) is a innovative idea that has been introduced in our University. Green Club, Social Service Slub are the various clubs that are functioning in the University. To name a few, our University students are involving in handling the classes for the upper primary classes in the nearby government schools. Some of our students are involved in visiting the Adyar Cancer Institute once in a week in order to feed the inpatients of the hospital.
- Green club is an initiative which is involved in making the campus green and eco friendly campus. These students display boards in order make the campus neat and clean.
- Skill Development programme for interested students on Organic farming and Mushroom cultivation has been organized by Sathyabama University - Technology Business Incubator, School of Bio and Chemical Engineering and Centre for Ocean Research to impart the knowledge on organic agricultural practices comprising techniques on Soil management, Seed selection, Bio-Inoculant preparations, organic farm inputs, Bio-pesticides, value addition of Organic produce, Oyster and milky mushroom cultivation techniques, Organic Certification and Marketing. This programme will be a flagship for motivation and promotion of organic farming & Mushroom cultivation related skills which will further provide a platform for Entrepreneurship opportunities also for the student community.

CRITERION IV INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 How does the university plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The University expands the physical infrastructure consistently on need basis to accommodate the cutting edge technologies to cater to the teaching needs of the number of students enrolled. By understanding and analysing these academic needs, Planning and Monitoring committee suggests for the possible infrastructure development to campus development committee after ratification from other governing bodies. The campus development committee constituted for this purpose identify the new infrastructural requirements and maintenance needs, based on the inputs obtained from departments, admissions, research centres and management and then fulfils the infrastructural needs of every department on regular basis after the approval. The committee takes necessary steps for finalizing the schedule and optimum utilization of the facility. Facilities like auditoriums and student development activity centres are being utilized according to the requested and scheduled slots given by maintenance cell.

The University has an exceptional infrastructure for Administration, Research and Development, Laboratories, Library, Classrooms, Auditoriums, Hostels present in **61** blocks spread over **134** acres in the IT corridor. Every department possessed with adequate, well equipped and maintained state-of-art laboratories to meet the needs of students and researchers. The University

houses an automated central Library with Wi-Fi enabled and sophisticated e-library.

These world class infrastructures facilitate to organize mega events like Inter University National Basketball Tournament, Technosummit, Fem Fest, Taekwon-do, UNI- FEST, NASA, ET-QUIZ. To add a scintillating diamond on the crown of Sathyabama University, Sathyabamasat is designed and developed with this infrastructure.

4.1.2 Does the university have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

Yes. The University has a policy to create and enhance the infrastructure in order to promote good teaching learning. Standard operating procedures are followed to create and enhance the infrastructure, which includes estimation of infrastructural requirement and budget allocation for the infrastructural needs every year.

The University has established sophisticated research centres equipped with advanced equipments and facilities in competence with research organizations in the international arena to cater the research needs of students, faculties, scientists and Industries.

DETAILS OF MAJOR DEVELOPMENT /BUILDING

S.No.	Name of Buildings	Capital Cost Rs. in Lakhs
1	International Research Centre	500
2	Centre for Space Technology	35
3	Metrological Tower	25
4	Solar System	110

5	Central Library (Extension)	707
6	Dental College & 100 Bedded General Hospital	5046
7	Air Conditioned Auditorium(600 Seater)	90
8	Non Air Conditioned Auditorium (3000 Seater)	272
9	Air Conditioned Auditorium (200 Seater)	36
10	New Ladies Hostel (2 Buildings)	682
11	New Gents Hostel	154
12	Teaching Blocks	220
13	Computer Science Laboratory (Extn)	108
14	Electronics Engg. Laboratory (Extn.)	108
15	Electrical Engg. Laboratory (Extn.)	83
16	Automobile Workshop	264
17	Ladies Mess Hall	319
18	Physics Laboratory for PG Courses	159
19	Chemistry Laboratory for PG Courses	159
20	Bio Medical Lab (Extn.)	155
21	Mechanical Workshops (Extn.)	7
22	Mechanical & Production Workshops (Extn.)	7

23	Aero Hanger	6
24	Aeronautical Computer Lab	46
25	Workshop for Transport	19
26	Indoor Basket Ball Sports Ground	3
27.	Research and Development Centre	1,000
28.	Steel Research Facility	73
29.	Student Development Activity Centres	216
30.	Col.Dr.Jeppiaar Hostel for Boys	2941
31.	Computing and Simulation Lab	214
32	PG Mess (I floor and II floor)	447
33	Concrete Roads	100
Total		14311

During the last 5 years, the University has constructed a Col.Dr.Jeppiaar Hostel for Boys, Basic Computing and Programming Lab, Research and Development Centre, Student Development Activity Centres and extension of various labs apart from the normal academic requirements. Construction of B.Arch block extension is under progress. An integrated amenities NRI hostel is planned to construct in the next academic year.

4.1.3 How does the university create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?

Research and Development is the backbone of any good learning system. This is ably supported through appropriate infrastructural facilities at Sathyabama University. In addition to regular academic laboratories, individual department have specific research laboratories according to the requirements.

In addition, research centres, Viz., Centre for Remote Sensing and Geoinformatics, Centre for Nanoscience and Nanotechnology, Centre for Ocean Research, Centre for Water Research, IBM Centre of Excellence, Village Resource Centre, Centre for Space Technology, Centre for Earth & Atmospheric Sciences, Centre for Quality Assurance and Non Destructive Evaluation, Steel Research Facility, Centre for Waste Management, Centre for Bio-Resource Research and Development, Centre for Advanced Electronic Test Engineering, Centre for Quality Assurance & Non Destructive Evaluation , Centre for Drug discovery and Development respond to the technological needs through sponsored research projects, consultancy projects and collaborations with leading Industries, Academic institutions and with National and International agencies, for setting up of these dedicated research centres .

University has the following facilities to meet academic needs: Research Centres, Presentation Hall, Student activity centres, Animal House, Workshops, and Exclusive Computer lab for each Department, Information and Broadcasting Centre, Central Library, Advisory Bureau for Higher Studies. Well-equipped air-conditioned auditoriums and non-air-conditioned auditorium facilitate organization of international conferences, workshops, lectures, which are regular events on the campus.

4.1.4 Has the university provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?

Yes. Each department in the university has been provided with adequate infrastructure. Every department has fully furnished well ventilated, HoD room and staff rooms with high speed internet connectivity and RO water facilities. Separate rest rooms are available in each floor of every block for women students and staff.

4.1.5 How does the university ensure that the infrastructure facilities are disabled-friendly?

The University infrastructure is designed to accommodate the physically challenged people by providing ramps and lifts for their ease in mobility. Most of the labs and class room blocks have routes that support disabled students. Entrances are wide enough and rooms are large to accommodate their mobility equipment. Office and library are fully accessible by lift. Disabled friendly restrooms are available in every highly accessed infrastructure facility.

4.1.6 How does the university cater to the requirements of residential students? Give details of

- **Capacity of hostels & occupancy (to be given separately for men & women)**
- **Recreational facilities in hostel/s like gymnasium, yoga centre, etc.**
- **Broadband connectivity / Wi-Fi facility in hostels.**

The University provides on-campus accommodation for students from outside Chennai. Separate hostel facilities are available for boys and girls. Totally there are 10 hostels with 560 rooms for boys and 470 rooms for girls and an average of five students per room utilise this facility. All the hostel rooms have attached bathroom facility.

The hostel rooms are provided with fans, good lighting, adequate water facility, playground, news papers and magazines. Similarly, all the hostels have Wi-Fi facility with access to e-journals and other technical resources and thereby the students can access internet in their respective rooms using their lap-tops. The hostels are provided with a good hygienic cooking facility and spacious dining halls. There are 24 hours watchmen and wardens for hostels. The hostels are provided with telephone facility. A separate canteen, stores, computer centre with internet facility, audio-visual halls, medical room, gymnasium, and beauty parlour are some of the supporting services provided for the hostellers. Generator / Electricity Backup, Indoor sports facilities exists.

The doctors attend emergency calls round the clock. In case of emergencies, transportation facility is made available to the hospital. Besides these, there are adequate basic services made available on campus. Indian Bank has a branch and two ATMs on campus. The University provides adequate infrastructure facilities to fulfill the ever-increasing needs of a large number of students. To put it in nutshell, major available facilities are

- STD / ISD Telephone facility
- Exclusive uninterrupted study room for students after college hours
- Uninterrupted power supply and Generator
- Banking Facility with ATM counters (Separately for Boys and girls)
- Medical facility available with free medicines provided to sick students
- Medical Lab facility
- Reverse Osmosis water
- Open Air Theatre
- Well equipped Gym (Separately for Boys and Girls)
- Stores and canteen
- Yoga and Dance classes
- Facility for Indoor and Outdoor Games
- Facility for Laundry and Ironing
- Beauty Spa
- Computer Lab
- Students Ticket Reservation centre

4.1.7 Does the university offer medical facilities for its students and teaching and non- teaching staff living on campus?

Yes. The University offers medical facilities for its students and teaching and non- teaching staff. The University has separate medical rooms in boys and girls hostels. Medical rooms are facilitated with essential diagnostic facilities, a doctor and 3 nurses to assist in three shifts per day.

The University has an on-campus 24 X 7 general hospital with all necessary equipments and facilities. Students, teaching and non-teaching staff can avail the medical facilities for first aid in the medical room and in the hospital when it is needed.

4.1.8 What special facilities are available on campus to promote students' interest in sports and cultural events/activities?

Sports in Sathyabama University claim a fair share in the progress of the institution. Physical Directors impart and handle sports, games and physical fitness facilities. Women Physical Directors have been appointed in order to train and encourage women students to participate in Inter University Sports meet. The sports facilities include playgrounds for indoor and outdoor games such as Volleyball, Basketball, Kabadi, Cricket, Ball badminton and Table Tennis. The University has a well-equipped modern Gymnasium separately for men and women.

University offers plenty opportunities to enrich students' cultural interests. University has open air amphitheatres and auditoriums with latest audiovisual equipments to organize sports or cultural events for students. University supports students to organize such events by providing hospitality, technical manpower, accommodation, logistical support and other needs in order to inculcate students team work, leadership, interpersonal interaction, etc.

Ground Facilities

S. No.	Infrastructure	Facility
1.	400 Mt Track	1
2.	Basketball [Indoor]	2
3.	Basketball [Outdoor]	4
4.	Volleyball [Indoor]	2
5.	Volleyball [Outdoor]	10
6.	Tennis [Synthetic]	1
7.	Tennis [Sand]	2
8.	Badminton [Indoor]	6
9.	Badminton [Outdoor]	6
10.	Handball	2
11.	Table Tennis [Indoor]	2
12.	Football Field	2
13.	Hockey Field	2
14.	Ball Badminton	2
15.	Kho-Kho Court	2
16.	Kabaddi Court	4
17.	Throw Ball	2
18.	Gymnasium [A/C]	1
19.	Gymnasium [Non A/C]	1
20.	Chess and Carrom [Non A/C]	1

4.2 Library as a Learning Resource

The University Central Library is a specimen of architectural beauty of the campus. This building spread across an area of about 1,50,000 sq. ft., and is well equipped with all resources including digital library. The Library has exclusive reading section that host an impressive collection of academic resources in the form of books, journals, magazines, research papers. The library also provides Electronic Theses and Dissertations (ETD) on various subjects including science and technology, humanities and management science. To add on to its credits, the Central Library also has a colossal reading hall. In order to acquire ocean of knowledge in various fields, the library has more than 3,00,000 books and subscription to number of journals and audio-video cassettes.

The unique feature of our library is the collection of last one decade news papers. The access to online journals includes Science Direct, Elsevier, e-journals of Institution of Engineers (India), IEEE, ASME, ASCE, etc., The archive section with the back volumes is made available for the purpose of research to major extent. The library also has access to the library of Automotive Research Association of India (ARAI), Pune, MALIBNET, Anna University library membership, British council institutional membership, Institution of Engineers (India) Corporate membership facilities. The Digital Library serves as an aid for the students and faculty members to access the number of back volumes and e-resources. The Digital Library is used by more than 1000 students and faculties on an average every month. Lectures of eminent IIT professors are also available as a part of e-resource. The number of books, journals and periodicals are updated regularly. Book bank facility provides a helping hand for the students. The library is providing reprographic

facilities for the benefit of students and research scholars. The University library also has institutional membership with Indian Institute of Technology Madras.

The library follows the Open Access system where the users of the library, including students, research scholars and teaching faculty, have the freedom to enter into the stack area and search for their required books. The books are assorted according to DDC and are neatly stacked. The availability of a particular book can be fortified by searching through the database. Diverse of reference books along with newspapers and magazines are present in the library. The users are prohibited to carry any outside books inside the library and are thoroughly scrutinized while leaving.

In addition to the numerous computers available in the Departments and Research Centres, the University Central Library houses over 140 computers with networking and internet connectivity for the benefit of students, research scholars and faculty members. Apart from this, few systems have been allocated for Online Journal downloads.

Advisory Bureau for higher studies has been initiated for the students who admire to pursue higher studies, providing assistance in applying various Universities abroad. It also has several books on reasoning, verbal and numerical ability to mould the students for the competitive examinations like GRE, TOEFL, GMAT CAT and other Entrance Examinations. It also holds several resources on personality development and career development.

4.2.1 Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been taken by the committee to render the library student/user friendly?

Yes. The Library Advisory Committee includes the Deans and Head of the departments who manages the budget preparation, procurement of latest articles, books, infrastructure & development and also auditing. Library building

was recently aggrandized. In addition to the centralized access of this facility, the departments also possess dedicated libraries to fulfil the requirements and needs of every individual student.

The library advisory committee provides:

- Suggestions for the overall improvement of the functioning of the library
- Recommendation for the purchase of online journals and other resources

The committee ensures the effective utilisation of the funds provided for the development of the library. The library affirms the acquisition of the latest and updated learning resources like books and journals by sharing the distinct catalogues, book reviews, flyers, paper clippings etc. to the departments. Also the faculty members and students give their suggestions regarding the required latest magazines and books. The newly brought books are placed in display for the users. The purchase of research journals are made after receiving requisition from departments and recommendations by the library advisory committee. The new titles and research journals purchased in the library are intimated to the departments. This enables the occasional readers also to frequently visit the library. The ambience of the library instigates the learning intent among the readers. Central library building houses various development activities, innovative learning methodologies consistently with the spectrum of auditoriums in place.

4.2.2 Provide details of the following:

Total area of the library : 1,50,000 Sq ft

Total seating capacity : 500

Working hours (on working days, on holidays, before examination, during examination, during vacation):

On working days : 8 am to 8 pm

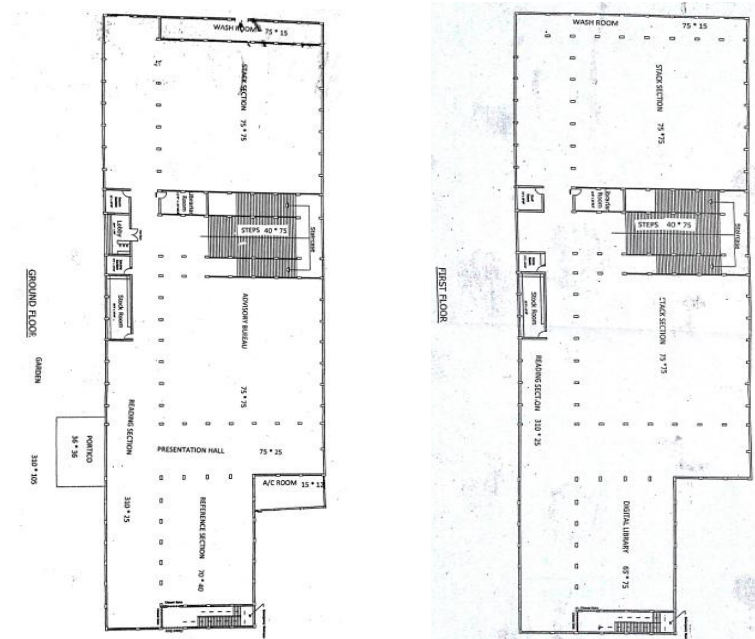
On holidays /Vacation : 8 am to 4 pm

Before/during examinations : round the clock

Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources):

The total library area has been divided into 3 floors of which 2 floors have been exclusively meant for library. These two floors comprises of book section, reference section, reading section, reprography, browsing lounge and digital Library. Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-abled users and mode of access to collection:

The Central Library has been provided with clear floor plan at the entrance. The generic rules of the library are displayed at the reception. Apart from this, in each floor sign boards, fire alarms and fire safety equipments have been provided. The special feature of the library book storage facility is that every book shelf is affixed with a prominent personality/ scientist's short profile. The Central Library is disabled friendly with ramp and rest room facilities. Braille Scripts are also available for the visually challenged students. Library is fully accessible by lift which is embossed with Braille script.



4.2.3 Give details of the library holdings:

- a) Print (books, back volumes & theses) : 308709+2408+871
- b) Average no. of books added during the last 3 years : 6000
- c) Non Print (Microfiche, AV) : CD/DVD :2377
- d) Print (journals, magazines) : 205
- e) Electronic (e-books, e-journals)
 - a. Open access journals : 62083
 - b. Subscribed journals + proceedings : 6835
 - c. e-books : 1442
- f) Special collections
 - Text books : 83713
 - Reference books : 4432
 - Standards : 500
 - Patents : 100
 - Special/Library Science Collection and Thesis : 833 (Architecture Student projects)

4.2.4 What tools does the library deploy to provide access to the collection?

- OPAC : Available in Library Server (<http://library server/opac/index.asp>)
RF ID book issue system is adopted recently in the library.
- Electronic Resource Management package for e-journals: Available in Library Server (<http://sites.google.com/site/sathyabamacentrallibrary/>)
- Library has IP enabled access to online Journals
- Federated searching tools to search articles in multiple databases: Auto Lib Software
- Library Website: www.sathyabamalibrary.com
- In-house/remote access to e-publications: Yes

4.2.5 To what extent is ICT deployed in the library? Give details with regard to

- Library automation:
Auto Lib - custom made software for management of in-house library Activities. This software includes modules for cataloguing, circulation, acquisition, serials and member management.
- Total number of computers for general access : 140 (N computing facility) with virtualization powered by CITRIX that facilitates the learning of students and staff
- Total numbers of printers for general access : 7
- Internet bandwidth speed : BSNL :100Mbps leased line
Reliance : 155 Mbps leased line
Wi- Fi facility enabled
- Institutional Repository: Access to MALIBNET, Anna University library membership, British council library membership, Institution of Engineers (India) Corporate membership and also to the library of Automotive Research Association of India (ARAI), Pune.
- Content management system for e-learning: Laboratory manuals and question bank content is available at <http://www.sathyabamalibrary.com>
- Participation in resource sharing networks/consortia (like INFLIBNET)
Initiated the process

4.2.6 Provide details (per month) with regard to

* Average number of walk-ins	: 6000
* Average number of books issued/returned	: 4000
* Ratio of library books to students enrolled	: 1: 85
* Average number of books added during the last 4 years	: 6000
* Average number of login to OPAC	: 15000
* Average number of login to e-resources	: 750
* Average number of e-resources downloaded/printed	: 425
* Number of IT literacy trainings organized	: 02

4.2.7 Give details of specialized services provided by the library with regard to

- Manuscripts : Yes
- Reference : Yes
- Reprography/Scanning : Yes
- Inter-library Loan Service : No
- Information Deployment and Notification : e-mail alerts and web alerts
- Internet Access: All the 140 systems available in library have Internet access. Apart from this Wi-Fi facility with 7 wireless devices of DLINK/Dap 2360A1 system is available.
- Downloads: Provides documents in CD/DVD
- Printouts: Yes
- Reading list/ Bibliography compilation: On request provides reading list/ Bibliography
- In-house/remote access to e-resources: Links provided in University website
- User Orientation: Assistance provided for access to JLIB Software.
- Assistance in searching Databases: OPAC Available in Library Server (<http://libraryserver/opac/index.asp>). Digital library section is available for assistance in searching databases.

4.2.8 Provide details of the annual library budget and the amount spent for purchasing new books and journals.

Approximately 1.5 % of the total University budget is earmarked for the Library for purchase of new books/ journals and subscription/ renewals. Rupees 2.25 Crores has been allotted for this academic year for the purchase of new books and journals.

4.2.9 What initiatives has the university taken to make the library a 'happening place' on campus?

University library is located centrally, which brings ease and feasible access from class room blocks, laboratories, hostels, etc. To make the library a 'happening place', University has taken initiatives like, accomplishing the student development cell activities, providing video-conferencing facilities to students through virtual networking, conducting book exhibitions, conducting webinars consistently, and offering foreign language and competitive examinations coaching classes.

New arrivals (Journals / Magazines / Books) are announced by displaying leaflets / cover pages on the notice boards. Lists on new arrivals are regularly circulated to the departments. Exclusive reading hour is allotted in the class timetable for library learning for each department.

4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analysed and used for the improvement of the library services?

There is a log book and a feedback register maintained in the library. Suggestion box is also in place. The feedback is analyzed by the library advisory committee and the necessary action will be taken to ensure better services.

4.2.11 List the efforts made towards the infrastructural development of the library in the last four years.

- The renovation of the presentation hall has taken place
- The inclusion of dedicated spacious reading section was inducted

4.3 IT Infrastructure

4.3.1 Does the university have a comprehensive IT policy with regard to

- **IT Service Management** :
A centralized server which is operational 24/7 is maintained regularly to provide un-interrupted IT services for students and staff.
- **Information Security** :
Firewalls are in place to prevent hacking and cybercrime. The data in the server is maintained as back up in tape drive and external HDD. In near future, the information security is planned to maintain with the induction of i-cloud in our system.
- **Network Security** :
LAN firewalls are maintained to provide limited access thereby protecting sensitive data. Unauthorized and obscene content based websites are blocked from the usage.
- **Risk Management** :
The data is maintained in a centralized server and thus prevents data loss and periodical back ups are taken and maintained.
The use of data storage card is blocked to prevent the risk of data corruption through virus infection. The fire wall is installed to protect against hacking and information security threats.
- **Software Asset Management** :
The licensed software are periodically updated and renewed.
- **Open Source Resources** :
The availability of the open source resources has made knowledge sharing and dissemination of data to the student and staff.

School	Open Source Software
Computing	<ul style="list-style-type: none"> • UBUNTU • FEDORA • JAVA DEVELOPMENT KIT 1.8 • NETBEANS IDE FOR JAVA • ECLIPSE IDE FOR JAVA • APACHE TOMCAT 8 • GLASSFISH • MYSQL • HYPERTEXT PREPROCESSOR • R TOOL FOR STATISTICAL COMPUTING • XAMPP • WEKA • RAPIDMINER • MONGODB • PYTHON • PHP • LINUX
Electrical and Electronics	<ul style="list-style-type: none"> • QUANTUM CELLULAR AUTOMATA • TASM SOFTWARE (TURBO ASSEMBLER) • 8085 SIMULATOR SOFTWARE • PYTHON 2.7.12 • MIT-BIH ARRHYTHMIA DATABASE • NS 2
Mechanical	<ul style="list-style-type: none"> • BRL CAD 7.24.0 • DRAFT SIGHT • ELMERFEM-MPI-8.2 • FREE FEM++-3.46 • OPEN CFD – OPEN FOAM 4 • OPEN FLOWER- V 1.0 • QCAD 3.15.4 • SALOME 7.8.0 • SCILAB 5.5.2 • TRNSYS 17 • SWEET HOME 3D

Bio & Chemical	<ul style="list-style-type: none"> • RASMOL • PYTHON • CHEMSKETCH • PACKMOL • DRUG LITHO MODELLER • AUTODOCK • SWISS MODELLER • SWISSPDB VIEWER • VECTOR NTI SUITE • MERCURY 3.6
School of Building and Environment	<ul style="list-style-type: none"> • QUANTUM GIS • RAY MAN PRO • ENVI MET • SU HELIOS
Science and Humanities	<ul style="list-style-type: none"> • XCRYSDEN • OPENMPI • BLAS, LAPACK • SCALAPACK • GLIB-C-2.14 • GFORTTRAN • BOLTZTRAP, • CUBIC&TETRA-ELASTIC PACKAGE • CRITIC

- **Green Computing** :

The intranet facility across the campus has reduced a lot of paper work, thus marching towards paperless University objective. This in turn reducing the garbage generated thus contributing to the green computing.

The green computing technologies are implemented to use minimal power and system resources through N computing technology in digital library.

4.3.2 Give details of the university's computing facilities i.e., hardware and software.

- Number of systems with individual configurations : 3000
- Computer-student ratio : 1:1
- Dedicated computing facilities : 400
- LAN facility : yes
- Proprietary software : yes
- Number of nodes/ computers with internet facility : 3000
- Any other (please specify): Wi-Fi access services is available in all the student accessible places of learning except the regular classrooms. There are 3000 systems networked by LAN. The proportionate numbers of computers are maintained to cater to the needs of the students. It is proposed to develop proprietary software like android apps. The computers are networked and sharing of data and communications are done through intranet.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

The University campus is networked by LAN and the hostels and the central library are provided with Wi-Fi facility. The daily academic activities like student attendance and marks are being updated by in-house software, Student Information System (SIS).

Video conferencing facilities are available in the library and auditoriums. Facility to attend webinars for students and staff are available. School of computing has delivered an online counselling system for smooth conduct of the academic counselling. Possible inclusion of various other inputs received during counselling are planned to incorporate.

4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.

- The University has access to remote educational facilities like Edusat / Vsat. The staff and students are provided access to online journals and e-books for their academic and research purposes.
- All departments have modern computer facilities and are used by the students and faculty, which provides ease of access to open source resources like NPTEL and other video lectures. The students are also encouraged to collect diverse reading material that is available in online. A course material is made available for every subject, which a student can download and read at any time.
- The whole campus is networked with Internet, intranet online services.

4.3.5 How does the university address issues such as authenticity and copyright with regard to online resources that lie outside the university?

The firewall is capable for tracking authenticity and copyright policy of online resources.

4.3.6 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?

The digital library and office of the Controller of Examinations using N computing and virtualization powered by CITRIX to facilitate the learning of the students and faculty members and also for evaluation. Wi-Fi facility is provided for the students in the library and hostels to access information with ease.

4.3.7 What are the IT facilities available to individual teachers for effective teaching and quality research?

Being a technical institution, University focuses on information and communication technologies. All the departments in the university are equipped with high speed internet facility. University campus has optical fibre based LAN and Wi- Fi facility.

Each and every department has separate computing laboratory with extremely good internet. ICT facilities are accessible to students as well as faculty at free of cost. Students and staff residing in the university hostel can also access internet and Wi-Fi available in every hostel. Research centres are also provided with Wi-Fi facility.

4.3.8 Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?

Three ICT-enabled classrooms are available within the university. Every classroom is equipped with OHP, LCD projectors and systems for better explanation.

4.3.9 How are the faculty assisted in preparing computer- aided teaching-learning materials? What are the facilities available in the university for such initiatives?

Computers with internet facility have been provided to faculty in each department.

4.3.10 How are the computers and their accessories maintained?

An exclusive Information and Broadcasting centre with qualified System Administrators, Software and Hardware Engineers, maintains the computer networking, internet, website, all the servers, database and the digital library, etc. Network maintenance engineers from the centre regularly visit

departments, to check the network access; update the antivirus patches and maintain a log of the status of the computers and network. Apart from this every computing laboratory is having a system administrator to look after the proper maintenance of the computers.

4.3.11 Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?

No

4.3.12 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?

Yes, the access to various knowledge based search engines, dictionaries and encyclopaedias are provided.

4.3.13 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.

The annual budget is made based on the requirements for new systems, servicing of existing systems from individual departments and the need for upgrade to latest technology. Approximately Rupees 1.1 crores has been allotted in this year.

4.3.14 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?

The teaching and learning information are shared within the university campus. Our learning and teaching practices are shared with other institutions and some of them are practising the same. Student development cell is one such example.

4.4 Maintenance of Campus Facilities

4.4.1 Does the university have an estate office / designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes. The University has 2 estate officers for supervising the construction and maintenance of the infrastructure. The University has formed a maintenance cell to maintain and repair the buildings, class-rooms and laboratories of the university. The lawn in front of the administrative building is gardened and modified to improve the physical ambience.

Because of the intermittent deluge in Chennai in the month of November 2015, various constructions were seriously damaged. The renovation of auditoriums, student activity centres, hostels especially most affected ground floor has taken place.

4.4.2 How are the infrastructure facilities, services and equipments maintained? Give details.

Scientific equipments are maintained by manufacturers themselves till the warranty period and later by agencies under 'Annual Maintenance Contract' (AMC). Computer networking, internet, website, all the servers, the digital library and database, etc., is been maintained by efficient and qualified System Administrators and System Engineers. Network maintenance engineers regularly visit departments to check the network access and maintain a log of the status of the computers and network. All the departments in our University is connected with internet through Campus-Wide network (Optical Fibre Backbone) and also extending the facility to Hostel, Library and Research centre of the University through Wi-Fi facility been maintained by the Information and Broadcasting centre. Also the centre taken for software applications used in the University, such as academic software for admissions,

course registration, grading, accounting and payroll, administrative and HR software. Departments themselves look into the service of equipment at basic level. Depending on the need or seriousness of the damage, the department uses the service of the equipment supplier or external agencies.

Any other information regarding Infrastructure and Learning Resources which the university would like to include.

Infrastructure development is not only focused on academic approaches but to stay with leading-edge technologies, additional facilities are available for every department.

Every centre for research is established at university campus in association with an Industry or R&D Organization in order to achieve excellence through sharing their expertise right from recruitment of scientists, setting up the centre with state –of –art equipments and promoting research activities. This facilitates highest quality multidisciplinary research. Many Centres are established focusing towards societal benefits.

University is proud of its acquisition of world class clean room for design of Satellite under Space Technology project; Centre for Advanced Electronic Test engineering; 50m meteorological tower for the prediction of climatic conditions; Village Resource Centre for the up-liftment of the society. The University puts its continuous effort in creating an excellent infrastructure towards cutting edge technology in both academics and Research.

For Accreditation – Cycle : 2 Re-Assessment

- University puts its continuous effort in creating an excellent infrastructure towards cutting edge technology in both academics and research.
- Identification of latest equipment analysis is under progress for up-gradation of Laboratory facility. In addition to this, all the Faculty rooms are being equipped with Internet facility.
- A new Gents Hostel is being created with modern facilities. In addition to this, an NRI Hostel facility is at the planning stage.
- Under the networking of Library with reputed Libraries, at present Library networking is already done with Automotive Research Association of India (ARAI), Pune and other networking is in progress. An MOU with Reliance JEO is under consideration in order to make the total campus a Wi Fi enabled campus. All the departments in our University is connected with internet through Campus-Wide network (Optical Fibre Backbone).The facility is extended to Hostel, Library and Research centre of the University which is maintained by the Information and Broadcasting centre.
- Open source resources are available with every school and are being used widely for knowledge sharing and dissemination of data to the student and staff.
- Recurring expenditure for maintenance of buildings and campus facilities is increased and approvals of the same has been taken from Finance Committee.

CRITERION V

STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes. The University has a well defined student support system, which is keen towards the overall development of the student. This is being achieved through the counsellors, year coordinators who are part of this student support system and assist other hierarchy. All the student counsellors are involved in both academic and personal counselling for a group of 20 students.

The Counsellor maintains a complete record of the student activity in the campus and this information is also available in the Student Information System. They also work hand-in-hand with the parent by bringing them up to date on their ward's progression like sending assessment marks and daily attendance through SMS. Parents and Students can also check their academic progress through the online student information system in a secured student login portal with has unique id. The counsellors and other staff members provide guidance to students to enhance their quality of education, encourage them to participate in sports and cultural activities.

The faculties working as hostel warden provide round the clock assistance to the students in personal needs and in academics. The hostel students and day scholars can meet the counsellor for Special Counselling if required. A Separate Counsellor for Women is available in the campus. Dean (Student affairs) with the support of counsellors, year coordinators address student concerns, that are brought to the notice by student ambassadors.

University is having exclusive Psychological counsellors. Professional and trained counsellors (both male and female) are available. The responsibilities of psychological counsellors include: addressing the emotional stress, motivating, guiding and counselling the students to meet their goals.

5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

The students are encouraged to undergo professional training in Industries and separate credits have been introduced for this training. The students are assisted in participating and presenting papers in conferences and seminars in National and International level. Students with poor academic performance are taken special care by the method of counselling and are provided with necessary academic training by the subject teachers. Students are encouraged to display their developed products in exhibitions and competitions organized by National and International agencies / institutions. Technosummit and Technovation are the platforms that are available for the students to showcase their developed products. They are given opportunities to involve in Sponsored Research projects along with the Professors and Scientists of Research Centres of the University, where their research findings and contributions are jointly published in National and International journals. One such initiative is the planning and development of SATHYABAMA SAT, which has provided scope for nurturing student technical talents and served as the litmus test for technical expertise. This initiative and its success also provided the best possible exposure to the students to international and national scientific area.

Sathyabama University have developed and evolved STUDENT DEVELOPMENT CELL (SDC) with the objective of bridging the gap between the academia, industry and in serving the societal needs. SDC is a group of ignited and enthusiastic minds clustered together to plan and execute literary,

skill and societal activities. Students organize Power series lectures with eminent persons from corporate world and engineering industry. Students are encouraged to participate in workshops, project exhibitions and community development activities.

Most of the Students are members and office bearers in respective professional societies like IEEE, ISTE, ASME, SAE, CSI, ISOI, ISA, IE etc. The student chapter gives scope for the ideating, presenting and performing through symposiums, conferences and seminars. Also department conducts periodical feedback sessions with the students to gauge their levels of learning and to initiate corrective measures well in time.

5.1.3 Does the university have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well being for its students? Give details of such schemes.

Career Development Programs:

Our **Placement and Training Cell** offers **Career Development Program** for the students who are raring to enter the corporate world. This cell assists the job aspirants' according to their aspirations and background by fetching out suitable opportunities. The uniqueness of this training offered by the placement cell is category wise need based vigorous coaching for the students after conducting series of tests in the possible patterns of various companies.

Specific training programs are formulated after a thorough analysis of unique requirement of various companies as the required skills will vary according to the company's requirement. We impart this training program with the help of reputed training Institutes. They enable our students to gain a competitive edge in the recruitment process with enough confidence and attitude. The training modules will be formulated to improve our students' skills like Presentation

Skills /Listening Skills/ Interpersonal Skills/ Personal Grooming /Brain Strain Apt. Reach /Speed Mathematics/ Logical Reasoning/ Deciphering the Matrix/Verbal Reasoning/ Situational Conversation/Team Building / Creativity / Group Discussion / Planning Goal Setting / Time Management / Sentence Construction/Personal Counselling /Motivational Talk.

Career based Certification programs:

- **BEC (Business English Certification)** training has been conducted to our students and they are encouraged to take the Certification process Conducting Aptitude test periodically to equip them for campus recruitment in final year
- Diagnosis tests to find out students' strength & weakness and train them based on their requirement
- Encouraged to undergo certificate course in a specialized field to mould themselves technically. Vedic Mathematics, Journalism and Scientific Sense of Silicon Systems are some of the courses that are being conducted periodically. Regular Seminars are conducted to keep in touch with the recent trends in the Higher education scenario by resource persons from United States Educational Foundation in India (USEFI) - a part of U.S. Embassy, U.K. Consulate, Professors from Foreign Universities and our Alumni who have done Higher Studies and employed in India and Abroad.
- Networking courses are also conducted for students on the following areas:
 - CCNA - CISCO CERTIFIED NETWORK ADMINISTRATORS
 - MCP - MICROSOFT CERTIFIED PROFESSIONALS
 - MCSE - MICROSOFT CERTIFIED SOFTWARE ENGINEERS
- Software courses for Non IT students are also conducted in the following areas :

JAVA PROGRAMMING ORACLE
VISUAL PROGRAMMING J2EE
C & C + + PROGRAMMING
INTERNET PROGRAMMING (HTML, XML, ASP, JAVA SCRIPT)

Entrepreneurship Development Cell:

This cell provides guidance for students interested in self employment and starting their own ventures. Successful entrepreneurs, Experts from Small Scale Industries and District Industrial Centers, Professional from Commercial Banks are invited to meet the students so as to encourage and guide them with the procedures towards establishing their own ideas of employment generation. The Employment Cell also encourages the students to be self- employed and creates awareness on various avenues of self-employment. Workshops and programs related to Self Help Groups belong to the awareness programs conducted by the cell. A Technology Business Incubator sanctioned by NSTEDB - DST is functioning in the University that encourages student in making the innovation as a commercially viable outcome.

Advisory Bureau for Higher Studies:

Advisory Bureau of Higher Studies (ABHS) is an integral part of the Central Library with the collection of numerous books other than curriculum related books of the main library and ABHS is involved in the training needs of students such as offering foreign language courses and certificate courses. ABHS always ensure to bridge the gap between the International Institutions and our students, an “Abroad University Mela” has been organized in collaboration with the embassies in Chennai. ABHS also involved in offering coaching classes for GRE/TOFEL/GATE/CAT in association with reputed training institutes.

Other Programs:

Coaching in Computer Language and Spoken English are being conducted from 4 P.M to 6 P.M in Hostels for boys and girls. Internet facilities are offered

to students from 4 P.M onwards. University offers certificate courses through video conferencing in various trades like Electrician, Plumbing, Medical Lab Technician, and Nursing Assistant to the **rural students through Village Resource Centers (VRC) at free of cost** and the qualified are offered placement by the University.

5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Sathyabama University has tie up with Indian bank. As per the guidelines from Reserve bank of India, a student has to approach the nearest bank based upon his/her permanent residential address. In case of non-availability of nearest Indian Bank, a student can approach any other nationalized bank and the University assist the students in providing necessary documents required. At the time of admissions, University in association with Indian bank assists parents and students with the information related to education loan through help desk.

5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues / activities/ information included / provided to students through these documents? Is there a provision for online access?

The University publishes updated prospectus and handbooks annually. The prospectus carries details of the University and other related information like Courses offered in the University, Library, Computer facilities and related labs, Hostels, Admission criteria, Infrastructure, Placement, facilities offered in the campus, Information about Research Centres and its facilities, Projects, MOUs, Awards and Recognition received by the University and other information which helps students. All the information updates can be obtained by accessing the website www.sathyabamauniversity.ac.in. The prospectus is available in the

website for online access which assist the student and parent in decision making process.

In addition to this, every department gives handouts, which provide detailed information pertaining to their department like term wise courses, timetable and courses outlines etc. The Newsletter (CAMPUS BLOG) of University covers the activities and achievement of students and faculty, and other University news.

5.1.6 Specify the type and number of university scholarships /free ships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M. Phil/Ph.D. Diploma/others (please specify).

The economically weaker section and rural students are sponsored by various NGO's. The students are selected on the basis of their merit. These students are provided with full scholarship i.e., free education, free hostel and other facilities. Visually challenged students are admitted in B.Com course with full scholarship.

Following table represents the details of scholarships offered by the University through Sathyabama educational trust.

S.No	Category	Scholarship amount per year
A.	Academic Based Scholarship	
	<ul style="list-style-type: none"> • First 25 rank holders in the entrance examination are provided with 100% concession in tuition fees to the entire duration of the course • Remibai Jeppiaar Scholarship is offered ranging from 10% to 30% in the fee for the top three rank holders of the University semester examination in every branch of engineering. 	<p>50 Lakhs</p> <p>50 Lakhs</p>

B.	Social Service Category <ul style="list-style-type: none"> Free education for the students sponsored by social service organisations like Anbu foundation, ability foundation, world vision and many others. These students include children's of war widow, acid victims, and visually challenged students. An average of 250 students/ year are offered with this scholarship. 	12 crores
C.	Sports Scholarship <ul style="list-style-type: none"> Free education is offered for the students with exceptional sports talent. Several students participating in the basket ball, foot ball are offered this scholarship. Concessional scholarship is offered for the students belonging to the coastal development category. 	2.5 crores 1 crore

The University encourages economically back ward students in various ways. Every year Full Scholarships, Partial Scholarships, Scholarships for outstanding students are offered to the students. About 10% of the total numbers of students are pursuing their education with the scholarship offered by the University.

5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?

6 % of the students receive financial assistance from state, central government and other national agencies.

As the University always puts its best step in reaching out to weaker sections of the society, most of the desirable students are benefitted by the above mentioned University Scholarship which helps them in continuing their education. This financial autonomy that is being experienced by a student in our University may be the reason for not availing the government scholarship to the major extent.

5.1.8 Does the university have an International Student Cell to attract foreign students and cater to their needs?

Yes, The University has a **Centre for Academic Partnership and International Relations** that takes care of mobility of foreign students. Apart from the Students who enrol for Undergraduate Courses, our University also receives Research Students from Universities and Research organizations across the world, for a period of 6 months to one year. International Students are given special care inside the University Campus. They are given comfortable accommodation, food and other facilities to meet any of their special requirements. Orientation programmes that provide information about the university are arranged for the International Students. Unified culture, climate, history and economy of India are also taught to them. In holidays arrangements are made for them to visit nearby tourist places.

5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes. The university assist the students in obtaining educational loan from nationalized banks and also scholarship from state governments.

5.1.10 What type of support services are available for

Overseas students

Overseas Students receive guidance and counselling, besides travel assistance.

Physically challenged / differently-abled students

Differently-abled students are exempted in payment of fees towards their transport, food. Buildings are designed with ramps for their mobility inside the campus.

SC/ST, OBC and economically weaker sections

University is catering to the needs of students belonging to deprived communities of Scheduled castes, Scheduled tribes, other backward classes and low-income groups. SC and ST students are encouraged to continue their education by way of Scholarships from Government and Non – Government Organizations.

Students participating in various competitions / conferences in India and abroad

Several welfare schemes like sponsorship for student's projects, sponsorship for International and National Conferences at home and abroad, works shops, Symposiums etc are always given to the students. Apart from these the University also provides needy students with study and sports material, payment of examination, tuition fees and organizes medical aid to students, scholarship for sports students, scholarship for meritorious students and financial assistance for in house projects.

Health centre, health insurance etc.

The University has state of art gymnasium for girls and boys separately which can be utilized for free of cost. Yoga classes are conducted regularly in association with world community centre. In house medical facility is available for 24 hours inside the University campus. The University also has a well established general hospital that serves the students and staff. All the students of the University are covered under accidental insurance for a maximum of rupees one lakh.

Skill development (spoken English, computer literacy, etc.)

Coaching in Computer Language and Spoken English classes are being conducted from 4 P.M to 6 P.M in Hostels for boys and girls. Internet facilities

are offered to students from 4 P.M onwards. Advanced Computer language classes are offered at CISCO sponsored lab.

Literary club students conduct “TARANG” program for students with less and difficulty in English proficiency.

Performance enhancement for slow learners

- Diagnostic Tests are being conducted to find out the weaker students and train them based on their need.
- Special classes for average and weak students are conducted regularly on Saturdays.
- Extra assignments and hand out materials are given to support them in their academics.
- Communication workshops are conducted to enhance the language skills of the students.

Exposure of students to other institutions of higher learning/corporate/business houses, etc.

- **Cognizant** has accredited our University as their academic partner and they are involved in various Skill development Programs. Few of the programs are: Evolve, Faculty Enrichment Programs and Xperience Cognizant.
- **Wipro** has certified Sathyabama University as “TRUSTED ACADEMIC PARTNER”. Few of the programs sponsored by Wipro are “Mission 10X”, “Jump Start”.
- **Accenture** has signed an MOU with the University and become a consistent recruiter of on-campus selection process. The company is conducting “Mind Power Enhancement Program” and “Soft skill development Programs” for our students. “Accenture career Day” is being conducted regularly to give an insight on Accenture’s offer to the students.

- **Infosys** is training our students through their “Campus Connect” program. Faculty development programs are also conducted by Infosys.
- **VirtUSA** has setup two labs (Mobile Application Development Lab & Rich Internet Access lab) in the campus. Students from CSE and IT are being taught and trained on Mobile Application Development by Virtusa Technical Experts.
- **Computer Science Corporation (CSC)** has selected 30 of our students and assigned them projects which are being mentored by CSC managers.
- University signed MOU with **FLSmith**, which helps our students to get Industrial exposure through knowledge sharing.
- **Emerson Automation** has sponsored a machine (**UniDrive SP Model**), which is being used by electrical students as part of the curriculum and also for the research activities.
- Apart from the above mentioned specific programs, students are exposed to industrial visits, workshops, training programs, seminars, paper presentations, conferences, exhibitions, organized by various technical institutions within and outside the state.

Publication of student magazines

Every department publish their department magazines consisting of student activities, achievements in sports, cultural, academics and community services. One such magazine published by the School of Electrical and Electronics Engineering is “THE ELECTRON”, a manuscript magazine that is serving as a platform for technical and non-technical talents exploration. “INGENIUM” of School of Science and Humanities also belongs to this category.

5.1.11 Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defense Services, NET/SLET and any other competitive examinations? If yes what is the outcome?

One of the key goals of the university is to provide an ambience in which higher studies thrives among the students. The Advisory Bureau for higher studies has

been instituted for students who wish to go for higher studies and it has been functioning in this regard with resounding success. The higher studies bureau provides opportunities for students to explore all the possibilities of applying to various Universities in India and abroad. About 5% of students of our University prefer to go for further studies after completion of their education. University encourages students to go for higher studies in their relevant fields and organizes programs to provide guidance for competitive examinations like TOEFL, GMAT, GRE, SLET, UGC -CSIR IAS, GATE, Central, State services in the last two years. University assists students with the facility of getting trained in competitive exams such as CAT, GRE and TOEFL through associated training institutions. Jeppiaar IAS Academy is established to train the aspiring students for civil services.

5.1.12 Mention the policies of the university for enhancing student participation in sports and extracurricular activities through strategies / schemes such as additional academic support and academic flexibility in examinations, special dietary requirements, sports uniform and materials Any other (please specify)

There are excellent recreational facilities for Sports in the campus. State-of-the-art sport facilities, gymnasium, indoor stadium, well furnished courts, outdoor stadium, and sports complex of the University support all types of indoor and outdoor sports like Cricket, Basketball, Athletics, Badminton, Volleyball, Football etc.,

The University sports teams are given coaching by experts besides providing nutrition allowance, practice facility, travel and daily allowance, lodging and boarding, blazer, incentives and recognition at annual / cultural functions. The intense coaching in specialized sports also helps the students in enhancing their skill set in sports. Our University Basket ball team are the south Zone champions for the last five years. The Volley ball team is the south zone runner

for the last three years. It is indeed a great pride to the University that three of our basket ball players represented national basket ball team. The University encourages the students with exceptional sports calibre. The national level participants and winners are suitably rewarded with full fees concession, free boarding and food facilities.

5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?

Yes. The Placement and training cell in the University functions with the objective to transform the students to meet the corporate expectation and secure them a job in reputed companies based on the aspirations of each student.

Effective mechanism for student empowerment:

- We have full-fledged Placement cell, which monitors the employment opportunities available in various domains & arranges campus interviews for all final year students. Intense training is provided for the students from the first year onwards towards ensuring better placement.
- Various Industry interactions are organized for the students.
- Corporate expectations are studied, analyzed and modelled to prepare the students in meeting the industry requirement.
- Our Campus recruitment program starts at the end of the Pre-Final semester examination as per the NASSCOM guideline.
- The On Campus recruitment program keeps continuing till the end of their final semester. Off-Campus Interviews are arranged and informed to the students who are not selected in the on-campus placement.

The Placement Office takes care of placing students in the right kind of job environment. Both national and international companies visit the campus for recruitment. Students have job opportunities in various sectors, including Information Technology, Engineering, Consultancy and R&D. The campus recruitment commences in the month of October and continues throughout the year. More than 50 companies visit our University for Campus recruitment process.

The University offers Counselling to students. External trainers are engaged to provide regular training to the students during their pre-final year. The students on a regular basis are given verbal ability and non verbal tests to prepare for competitions after their graduation to face the company tests and also tests for higher studies. Subject experts from various departments, experts from the Department of Mathematics and English provide regular coaching to the students after categorizing them into various levels after diagnostic tests.

Personality development programs and preparation for group discussion and mock interviews are also some of the areas in which students are offered training. Placement and counselling services is a inherent activity of the University academic system, which is collectively offered by the Placement Cell, Advisory Bureau for Higher Studies (ABHS) and Entrepreneurship Development Cell. Lecture CDs from various Consulate offices, talks by invited speakers on the courses offered abroad, eligibility criteria and other information provided by them are also taken up. Latest Materials to prepare for GMAT, GRE, and Sample Mock Tests- on line/ off line are also available to desired students in the ABHS.

Dynamic Empowerment program for women students are conducted by the Entrepreneurship Development Cell towards developing the leadership skills.

5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).

The placement cell is proactive in planning the training schedules for all the categories of students. Company specific test modules are given and the students are offered enough exposure to the recruitment pattern. As a result of these continuous efforts the following results are obtained in past few years.

Year	No.of Students Registered	No.of Students Placed	% of students placed	Top Recruiters		Average Salary (P. A)
				Name of the company	No. of students selected	
2015-2016	1812	1636	90.28	Cognizant	351	Rs. 3,30,000
				Infosys	341	
				Wipro	203	
				Capgemini	40	
				Sigma NDT	39	
				CSC	26	
				Bank of New York	22	
				AETINS	18	
				NTT Data	13	
				HDFC	12	
2014-2015	1788	1708	95.52	Infosys	318	Rs. 3,30,000
				Cognizant	302	
				Wipro Technologies	218	
				Capgemini	40	
				Bank of New York	25	
				Arcent	20	
				iGate	19	
				Covenant	17	
				CSC	16	
				SL Lumax	14	

2013-2014	1662	1504	90.49	Cognizant	201	Rs. 3,30,000
				Wipro Technologies	180	
				Capgemini	38	
				Oracle	19	
				LnTInfotech	17	
				ICICI	15	
				FACE	17	
				CSC	14	
				IndusInd	14	
				Sanmina	14	
2012-2013	1734	1427	82.3	Cognizant	201	Rs. 3,25,000
				Wipro Technologies	180	
				Capgemini	38	
				Oracle	19	
				LnTInfotech	17	
				ICICI	15	
				FACE	17	
				CSC	14	
				IndusInd	14	
				Sanmina	14	
2011-2012	1868	1776	95.07	Cognizant	586	Rs. 3,10,000
				Wipro Technologies	200	
				Accenture	131	
				Mindtree	47	
				SL Lumax	38	
				iGatePatni	25	
				WebToday	22	
				RBS	19	
				Cybage	18	
				KU Digital	14	

5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?

Yes. The Institution has a vibrant Alumni Association, which meets twice in a year to share their expertise in the field of academic, industry and management with the students.

Alumni Association is a registered body that comprises of the President Mr.Boopathy Rajendran, Secretary Mr.Igni Prabhu and Treasurer Mr.John Paul.

Alumni contribute to the development of the institution in the following ways:

- Provides valuable inputs in curriculum design, focus on specific topics to make the learning more meaningful and to meet the current basic needs of the industries. Alumni is an integral part of the constitution of Board of Studies.
- Brings their career experiences to the classroom by participating in advisory board and as visiting faculty or as guest speakers.
- They represent our university and also help us in the placement of our University students in reputed industries and research organizations.
- Alumni Association identify, cultivate and involve in areas such as student recruitment, career networking, chapter leadership, identifying potential donors and financial support.
- Alumni support system is further strengthened and streamlined by the active involvement of placement cell.

5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?

The University has a very effective and transparent grievance redressal system, where students are free to submit their grievances. The University' Grievances Redressal Cell comprises of Vice Chancellor, Registrar, Dean (Students Affairs), Dean Schools, Heads of various Departments, and Senior Faculty Members. These grievances include hostel related issues, academic issues and special requests. The grievances of the students are received and addressed immediately by taking up necessary action.

5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing a cell and mechanism to deal with issues related to sexual harassment? Give details.

Legal Literacy to women

During Fem-fest and cultural fest, lectures are organized on women's rights, responsibility and issues. Moreover, invited talks are organized with professionals from legal back grounds to provide legal literacy to women.

A separate counsellor for women is available in the campus. The hostel students and day scholars can meet the counsellor for special counselling, if required. The Women grievance cell may receive complaints through mails and in person, monitors and takes necessary measures to prevent sexual harassment in the campus. However, owing to healthy environment in the campus, no incident has occurred so far.

5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?

Yes. The Anti-ragging cell is headed by the Registrar with the representatives from the faculty, hostel wardens and Heads of the Department. Staff members monitor the activities of the students in the bus, mess, library, bank classroom, hostels continuously to prevent ragging. Students are well informed and encouraged to send emails or can report over phone regarding any untoward accident. Circulars are sent to the students, posters are displayed in the campus and orientation course has been conducted to stress about the punishment involved in the case of ragging, and the importance of anti-ragging. The reports are analyzed and suitable actions are initiated based on the investigation. Apart from this it is mandatory for every student to give an undertaking at the time of admission that he/she will not involve in any form of ragging.

5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?

Students: The institution collects general feed back through suggestion box and emails, personal meeting with students. Suggestions obtained from these students are used to look into the complaints regarding admissions and evaluation of students. Students and parents can give their feedback online. Student ambassadors are also playing the proactive role in strengthening the student feedback mechanism.

Parents: Parents give suggestions and feed back through their regular interaction with the class counsellors and through feedback redressal mechanism.

Industry and Academic/ Research Institution: Eminent people from industries, academia, research institutes are involved in the academic council, conduct of personality development classes for campus interview evaluation.

5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports/ cultural activities where such efforts were made.

Women students are encouraged to participate in all the sports and cultural activities held in National and international level. Their achievements include many. To mention a few:

- Girls students organize every year the **National level cultural fest – FEMFEST for Women**. FEMFEST has been conducted for past six years in which eminent woman achievers are felicitated/ cultural events are organized.
- **Ms.Jasmine and Ms.Sneha** who belong to the Aeronautical department participated in **Global Challenge in Aircraft Design (U.S)** 2013 organized by **Spirit Aero systems Inc.U.S** in December 2013 and won the **3rd Prize**.

5.2 Student Progression

5.2.1 What is student strength of the university for current academic year? Analyse programme-wise data provide the trends for the last 4 years.

Student strength in the current academic year 2016-2017

Program	Strength
UG-Engineering and Technology	12,045
UG-BDS	497
UG-Arts and Commerce	753
PG-Engineering and Technology	145
PG-Management studies	382
PG-Others	77
M.Phil/ M.Tech (By Research)	11
Ph.D (Registered- (July 2016))	87

Student strength in the past four years

Programme	2016-2017	2015 – 2016	2014 – 2015	2013-2014
UG Programme	13,295	13,191	13,054	12,175
PG Programme	604	732	1,204	1,798
M.Phil / M.Tech (By Research)	10	7	5	3
Ph.D (Registered)	87 (July 2016)	170	210	222

Student Progression	%
UG to PG*	4 %
PG to Ph.D.	30%
PG to M.Phil.*	-
Ph.D. to Post-Doctoral	-
Employed	
• Campus selection	82%
• Other than campus recruitment	7%
• Entrepreneur	9%

The most encouraging sign is the gradual increase of regular research scholars' registration in the recent past. Research scholars from overseas are also finding opportunities for innovation in the campus. The institution care towards the career of the employee is the prime reason for the number to be on higher side in the case of part-time scholars. Decentralization of academic opportunities at the School and department level is the futuristic goal that would definitely galvanize the rapid increase of number of regular research scholars in near future.

5.2.2 What is the programme-wise completion rate during the timespan stipulated by the university?

Name	UG	PG	M.Phil	Ph.D
School of Computing	98%	100%	-	95%
School of Electrical and Electronics	98%	99%	-	
School of Mechanical	98%	99%	-	
School of Building and Environment	98%	100	-	
School of Bio and Chemical	98%	100	100	
School of Management Studies	98%	99%	-	
School of Science & Humanities	-	-	-	
School of Education	99%	-	-	

The academic progression is achieved by the supportive curriculum and various student development activities taken up at School and University level. Advisory bureau of higher studies is actively involved in conducting periodical foreign language classes.

5.2.3 What is the number and percentage of students who appeared/qualified in examinations like UGC-CSIR-NET, UGC-NET,SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defence, Civil Services, etc.?

University encourages students to go for higher studies in their relevant fields and organizes programs to provide guidance for competitive examinations like TOEFL, IELTS, GMAT, and GRE. Students also appear and get qualified in

GATE, CAT, MAT, XAT examinations. The qualified students list in various examinations is as follows.

Exams	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Total
GRE	53	54	53	80	103	107	98	548
TOEFL	47	41	37	34	49	37	46	291
IELTS	51	36	44	61	72	79	74	417
GMAT	4	1	5	3	2	-	1	16

5.2.4 Provide category-wise details regarding the number of Ph.D./D.Litt./D.Sc. theses submitted/ accepted/ resubmitted/rejected in the last four years.

S.No	Year	Ph.D			
		Submitted	Accepted	Resubmitted	Rejected
1	2011	29	36	3	1
2	2012	67	29	7	-
3	2013	91	61	11	2
4	2014	104	84	08	04
5	2015	91	98	12	02
6	2016	70	113	04	-

5.3 Student Participation and activities

5.3.1 List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation.

Sports and games have played an important role in the evolution of Sathyabama University; sports in Sathyabama University can definitely claim a fair share in the progress of the institution. Over the Years University has invested in sports considerably, so that today we can be proud of not only having excellent sports facilities, but also have produced sports men of the highest caliber who have represented the country in various disciplines like volley ball, basket ball etc.

Inter University sports meet and tournament are conducted in the month of December/January and the intra university sports are organized in the month of February/March. The students participate in various intercollegiate sports meet throughout the year. Our university has been organizing all India Inter University Basket ball Championship, South zone inter university basket ball Tournament, Dr. MGR memorial state level inter college volleyball tournament, All India Inter University Taekwondo Championship, DR.MGR Trophy- Cricket Tournament, Silver Jubilee Trophy U-17 Cricket Tournament, Chess-South Zone Inter University, National Coaching Indian U-18 JUNIOR Basketball Camp and many other periodical sports events. The details of the sports activities are maintained by the physical director of the University.

The Inter University cultural festival is organized in December/January and the intra university cultural programs are conducted during February/March. Students are motivated to take part in extracurricular activities in the campus and also in the outside institutions. Excellent provision for Extra-curricular activities by way of dance, music, sports, parallel and hobby courses inspire students to work collectively, develop commitment to and pride to the institution.

5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. during the last four years.

Various co-curricular activities and extracurricular activities like NCC, Navy, Red Cross Services, blood donation camps, bicycle rallies, NSS and Social Services Activities and FEMFEST enrich the campus life of the students. The Youth Red Cross of the University has been awarded the Rolling Shield on 'National Voluntary Blood Donors Day' for securing the highest number of Blood donors for the Year 2011-2012. The details of the achievements of students in the co-curricular /extracurricular and cultural activities are maintained by the respective cells and departments.

5.3.3 Does the university conduct special drives / campaigns for students to promote heritage consciousness?

- Yes. The university conducts special campaigns for students to promote heritage consciousness through NSS units, community development cell and educational visits.
- Special visit to heritage sites like Rippon building, architectural sites are organized. To sensitize the students towards heritage values, the department of Architecture conducts various programs in association with INTACH, ASI and CMDA.
- Being an institutional member of INTACH, the department involves the students in listing of heritage buildings in and around Chennai in association with INTACH Chennai Chapter.
- The University conducts various workshops and symposiums in association with INTACH and ASI for students to promote heritage

consciousness. YUGAM, VERGAL, PARAMPARA, PUNARNAVA are some of the workshops organized.

- As part of the academic curriculum the students are taken for a rural study in the second year, wherein the students document the heritage buildings in rural areas. In the fourth year the students visit North India as part of the educational tour. The heritage places of Delhi, Agra, Jaipur, Jaisalmer, Jodhpur, Ajantha&Ellora are visited and documented to understand the culture, lifestyle, construction techniques etc in order to comprehend the associated heritage values of the built structure.
- The students also performed the listing and documentation of heritage buildings in Vepey, Egmore and Purasawakkam in association with CMDA.

5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/materials brought out by the students during the last four academic sessions.

The students are encouraged to publish their achievements in sports, cultural and awards won in paper presentations in conference held national and international level, societal activities, blood donation camps, awareness programs, safety measurements, public health, well being etc, in their department magazines, campus blog, indexed journals and conference proceedings. A few such publications are mentioned below.

- IC BUZZ 2016 is one of the magazines published by the post graduate students of the School of the Electrical and Electronics.
- Vortex 2013 – A magazine published during the Zonal NASA convention 2013, hosted by Department of Architecture, included articles by students, Interviews of architect legends and students academic works.

- WED 2010 – A research publication which included paper presentation of various colleges published during the World Environment Day.
- Space blob 2009 – A magazine published during the Zonal NASA convention 2009, hosted by Department of Architecture, included articles by students, Interviews of architect legends and students academic works.

5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.

Yes. Each class has a student Ambassador. The class ambassadors are given a separate email id for faster communication to all the student fraternity. In addition to this responsibility, feedback from the class ambassadors are collected in a formal mechanism for decision making.

Student Development cell (SDC) functioning in the University has the representation of students as President, Vice president and Secretary in the various design, science, robotics, mathematics, aero modelling, computer science, community development and echo clubs. Their activities include organizing Power series lectures, guest lectures, national technical summit, project exhibition, community development activities etc. The cell also funds for in-house projects. The funding of this cell is taken care by the University. The power lecture series of the student development cell is arranged to update the knowledge in different domains. The details of this activity are shown below.

NAME	DESIGNATION	DATE
Richard Spitzer &Subu D Subramanian	Founder & CEO, Spitzer Group LLC, Texas, USA and Mr. Subu D. Subramanian, Managing Director & CEO, Defiance Technologies Ltd	16/7/2013
Dr. VA Shiva Ayyadurai	founder of EMAIL.	17/7/2013
Mrs.Deepa Malik	Paraplegic Indian swimmer, biker and athlete-Arjuna awardee	14/8/2013
Dr. Sunder Raghavan &Dr. Massod	Emry-Riddle Aeronautical University, Florida	24/2/2014
Mr.K.Srinivasan	Founder and Chairman of Prime Point	25/2/2014
Mr. CK Ranganathan,	Chairman and Managing Director, Cavincare	12/3/2014
Mr.V,Ponraj	Scientist and Advisor to Dr. A P J Abdul Kalam	12/3/2014
Mr.Sujithkumar	Location Head- Human resources, Infosys, Chennai	19/3/2014
Mr. Sudhip Mishra	Head- e Campus Recruitment-India, Infosys	25/06/2014
Mr. R. Elangovan Pandian	Head of Operations, JK Fenner India Limited	11/07/2014
Mr. Jipu Jose James	National Director, PDS (INDIA)	15/07/2014
Mr. Shravan Kumaran	President & CEO of Go dimensions (An App Development Unit)	18/07/2014
Dr.A.P.J.Abdul Kalam	Former President of India	9/12/2014
Prof Mohan Sundara Rajan	Eminent science communicator	30/1/2015
Aneesh Nair	Head Operations – Biozone Research Technologies	21/7/2015
Deepti Zacharia	Principal Architect – Revolution by Design	6/7/2015
Srinivasan Iyer	Founder the HR Club and TEN (The Entrepreneur’s Network) India	9/7/2015
Fredrick Baskar	Business Head – MTAB	21/8/2015
Sivasubramaniam Iyer	CEO, Paper Clip	9/3/2016

5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.

The University is very keen in involving students in both academic and administrative bodies of the university. Student's suggestions and ideas are included and implemented in the introduction of new courses and improvement of the University facilities. Feedback from the students is collected by the concerned Heads of the Department, and shall also be submitted to the Dean Student affairs directly. Direct feedback from the hostel inmates is also taken by this office and reported to the management that helps in the planning and monitoring overall student development. Suggestion boxes are also in place. The feedback and suggestions given by the students reflect in planning and Development of the University.

Students are members of respective professional societies like IEE, SAE, ISA, IIPPE, IE, IICHE etc. The student chapter gives them a good exposure to the happenings in their fields through conference and seminars. The student members of these chapters are actively involved in conducting the symposiums and many technical events.

Any other information regarding Student Support and Progression

1. This University is a gateway for providing excellent academic and research exposure for students from coastal and rural background.
2. University provides training and career development programme focusing towards placement.
3. University promotes community development activities and women welfare schemes through student involvement.

For Accreditation – Cycle : 2 Re-Assessment

- **University is taking its own step for the improvement of the student support activities.**
- **University always puts its best step in offering University Scholarship viz. Academic performance based Scholarship, Social Service based scholarship, Sports Scholarship which helps them to carry out their education with success. Scholarships are given to weaker sections of the society, In addition, students avail scholarships through government support also.**
- **Campus Placement activities are noteworthy achievements in the University. More than 90% of the eligible students get the campus placement. 160 companies visit the University for campus recruitment purpose. Students are moulded to be readily deployable in the intrinsic competitive knowledge industry. Strong Training Need Analysis (TNA) is in place to understand the expectations of the company. The major recruiters include Infosys, Wipro, CTS, Capgemini, Tech Mahindra, Oracle, Renault Nissan, Flydocs, Assystems, Ford, Hyundai, L&T, Omics etc.,**
- **University has exclusive Psychological counsellors. Professional and trained counsellors (both male and female) are available. The responsibilities are well defined and their role include: addressing the emotional stress, motivating, guiding and counselling the students to meet their goals.**
- **Our University Alumni Association is a registered body that comprises of the President, Secretary and Treasurer. It is vibrant, meets twice in a year to share their expertise in the field of academic, industry and management with the students.**

- There is a gradual increase of full time research scholars' registration in the recent past. Research scholars from overseas are also finding opportunities for innovation in the campus. The institution care towards the career of the employee is the prime reason for the number to be on higher side in the case of part-time scholars. Decentralization of academic research opportunities at the School and department level is the futuristic goal that would definitely galvanize the rapid increase of number of regular research scholars in near future.
- University have a Student Council. Each class in the university has a student Ambassador. The class ambassadors represent on behalf of student fraternity. Feedback from the class ambassadors are collected in a formal mechanism for decision making who represent academic bodies. In addition Student Development cell (SDC) is functioning in the University which has the representation of students as President, Vice president and Secretary and represent themselves in various activities.
- Feedback from the students is collected by the concerned Heads of the Department, and submitted to the Dean (Student affairs) directly. Direct feedback from the hostel inmates is also taken by this office and reported to the management that helps in planning and monitoring the overall student development. Suggestion boxes are also in place. The feedback and suggestions given by the students reflect in planning and Development of the University.

CRITERION VI

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 INSTITUTIONAL VISION AND LEADERSHIP

6.1.1 State the vision and the mission of the university.

We envision being an effective and competent source of technical manpower for the current and future industrial requirements.

We intend to achieve this by:

- Undertaking research & development activities in emerging thrust areas by collaborating with international and national institutes and industries.
- Introducing innovative courses based on the industry & societal demands.
- Serving the community at large.
- Enriching the skill component among the student community to ensure the induction of efficient technical man power into the society

We induce the discipline and its positive impact in life to students by keeping ethical and moral standards which in turn shall improve the quality of life of the human race. Our mission is to empower people with effective means of education that leads to autonomous ideology in employment generation among students rather than just seeking for an employment. To promote academic growth by offering state-of-the-art undergraduate, postgraduate programmes to suit Industrial and Societal needs. To serve as the valuable resource for industry and to the community. To motivate the students towards cutting- edge research and to achieve breakthroughs in the emerging thrust areas of technology that makes our nation proud.

6.1.2 Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?

Yes. The mission of the University is to cater the educational and ethical necessities of the society through disciplined and technological outlook. Students from various parts of India with varied socio economic background are offered technical education and expertise for their holistic development. The University value distinct cultures and traditions by grooming individuals with high ethical and moral standards. We polarize and drive the young minds into future with hope, confidence and self discipline.

6.1.3 How is the leadership involved?

***in ensuring the organization's management system development, implementation and continuous improvement?**

The Leadership of the University is stratified as academic leadership and administrative leadership. The leadership is proactive to bring timely and necessary changes for the ease in academic activities planning and implementation. The objective of paperless University is one such proactive policy decision. The Academic Leadership is headed by Vice-Chancellor. The Vice-Chancellor is a whole time Officer of the University to provide requisite leadership to the system and chairs the meetings of the management bodies of the University. The Vice-Chancellor establishes leadership role in the functioning of the University through the team comprising of Registrar, Deans, Controller of Examinations, and the Heads of the Department. The Registrar heads the administrative leadership and all the non-academic activities like Finance, Non-Teaching Staff recruitment, Salary Payments, Attendance, Transportation and Maintenance. Registrar holds meetings and is responsible to revise the syllabus. Academic council meetings, Faculty Recruitments,

Academic Calendar Preparations are all the other issues jointly addressed by Vice- Chancellor and Registrar.

*** in interacting with its stakeholders?**

We indulge in regular interaction with the parents to discuss the progress, and development of the students. Reports on regular attendance, placement offers, and training offers are intimated to the parents and make them positively involved in the development of the student community. The teaching as well as the non teaching staff is involved in various levels of management to ensure quality education being transferred to the student community. Interaction and brain storming session between faculty and management and within the faculty helps in a systematic transfer of knowledge. The various Industry partners and collaborating institutes consistently interact and their expectations are effectively mapped into the curriculum, in order to meet the future demand.

Student ambassador meetings are conducted regularly to understand the academic and campus life related issues of the students and their suggestions, grievances are addressed. The planning and implementation of student development programs are carefully articulated by keeping the suggestions of the students.

*** in reinforcing a culture of excellence?**

We believe that achieving excellence is not a onetime activity; this is a sustained result of the perseverance and practice. Students are motivated to excel in their learning, training and applicative phases. Faculty are motivated with various awards and welfare schemes to pursue excellence in teaching and research. We assess the quality of students and staff to maintain excellence across all disciplines and areas.

*** in identifying organizational needs and striving to fulfil them?**

The organizational needs are identified at the department and school levels. Planning and monitoring committee discuss and also suggests the methods to incorporate in the system to fulfil the organizational needs. The expectations and needs are analysed at department level and put forth before the administration for further process. The Academic Council, Board of studies and deliberations at department level incorporate necessary amendments and changes in the syllabus, training curriculum to groom our students and to acquire potential in taking challenging tasks.

COMPLAINT MANAGEMENT PROCESS:

Suggestion box is made available to students. Students can also mail their grievances. Minor issues are taken care by the department whereas the major issues are brought into the notice of the management and within reasonable time the grievance of the student gets resolved. The grievance cell deal with the suggestions and grievances of the students and student queries are solved within few hours. Feedback of the students is recorded and utilized for the better planning and implementation of policies and programs.

GRIEVANCE REDRESSAL SYSTEM:

The University has a very effective and transparent grievance redressal system (both manual and web based), where students are free to submit their grievances. The grievances of the students are received and addressed immediately by taking up necessary action.

6.1.4 Were any of the top leadership positions of the university vacant for more than a year? If so, state the reasons.

No

6.1.5 Does the university ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?

Yes. All the positions are filled regularly. The Board of Management meets four times in a year. Finance Committee and The Planning and Monitoring Committee meets twice in a year. Academic council meets thrice in a year.

6.1.6 Does the university promote a culture of participative management? If yes, indicate the levels of participative management.

Yes. Students and staff are encouraged to participate and manage and take up roles in assisting the management. Students are active participants in department level meetings, where they are given the freedom to voice their concern, expectations and appreciation. Students are free to form themselves into groups and clubs namely, student development cell, eco club and many other heterogeneous clubs to carry out activities like waste management, adopting under privileged school children, maintaining discipline in the campus and inculcate good values among their peers. The staff participate and interact in various meetings held by the management and make their concerns and problems known to the management. Moreover, the faculties are involved in policy decision making in various committees headed by the Vice Chancellor relating to academic, finance and recruitment.

6.1.7 Give details of the academic and administrative leadership provided by the university to its affiliated colleges and the support and encouragement given to them to become autonomous.

Not applicable

6.1.8 Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?

Not applicable

6.1.9 How does the university groom leadership at various levels? Give details.

De-centralization of the administration is the reflexive measure taken from the suggestions of the academic experts. Diffused administrative model has been brought into the system with the induction of Deans for the respective schools and Deans for Student and Staff.

Deans of the Schools look after the regular functioning of the departments with a team of Heads of the departments. Each batch in a department has year coordinators, who interacts with students and addresses their problems to the management. Apart from this, each staff is allotted a class to counsel them, motivate and to identify the strengths and weaknesses of each individual student. Different faculty members are allotted different leadership positions like placement in-charge, sports in-charge, who monitor, motivate the students and regulate the activities in these areas.

All these staff and student representatives discuss with the University in-charges allotted for the functioning of each area, conduct meetings and schedule schemes to move further. Various cells and clubs have members from students and staff.

6.1.10 Has university evolved a knowledge management strategy? If yes, give details.

Yes. We understand that acquiring and disseminating knowledge is the base for every educational and research institution. Students are given training to meet the curriculum and the industrial needs inside the campus and are encouraged to participate in knowledge acquiring programmes conducted by other Universities and industries. Symposiums, Conferences, Workshops, Student development and awareness programmes, trainings, guest lectures are not rare in the campus, but the order of the day. Faculty Development Programmes, research opportunities and awareness programmes, motivational programmes

are conducted to staff for acquiring knowledge. Various skill development courses, software courses are conducted to keep the staff and student updated with the current technical scenario.

6.1.11 How are the following values reflected the functioning of the university?

* Contributing to national development

- The University has committed to the cause of disseminating technical education to the aspiring and deserving students of this nation. Igniting the young minds on the values of discipline and perseverance is the vision, which gets passed on as a mission from management to the staff and thereby to the student community at large.
- Education and research are the two focus areas in the functioning of the University. Encouraging staff and student in research centric learning is one of the salient features of the system in place.
- “**SATHYABAMA SAT**” is a nano satellite that was developed by the concerted efforts of the staff and student. It is one in two of the Indian academic institutions made satellites in the recent launch of ISRO.
- Our graduates taking up distinct responsibilities of serving the nation through various offices in the defense sector and national research centres.
- Pension schemes for rural widows, financial aid to Tsunami victims, and assistance for women who have lost their husbands during warfare, sea weed cultivation assistance, employability to rural people and other schemes by the institution are strengthening the various sections of the society.
- Started **non-formal education at FREE OF COST** with necessary facilities for the benefit of rural youth towards imparting the vocational skills

through 16 Village Resource Centers (VRC) in Tamilnadu. Around 2500 students are trained and given certificates, and also assisted in fetching out the employment.

- Giving life time pension, Rs.300 per month for **1000 old aged ladies/Widowers** through Jeppiaar Remibai charitable trust
- Giving life time pension, Rs.500 per month for **100 economically backward Tamil writers**
- Giving life time pension, Rs.1000 per month for **100 Tamil scholars**
- Giving life time pension Rs.1000 per month for **126 tsunami Widowers**
- Giving life time pension Rs. 500 per month, for **300 physically challenged people.**
- Giving Rs.10,000 per month for **Actors Association Charitable Trust**
- Giving part of the salary for school teachers of 10th and 12th standards in about **50 schools in Tamilnadu**
- Organizing the **water supply for 20 villages** under Rajiv Gandhi Water Supply Scheme
- Established an **e-library in Madras High Court.**
- For the poor fishermen community, particularly Tsunami affected villages in Kanyakumari district, **a fishing harbor was constructed** along with Government of Tamilnadu under BOOT system.
- **Free Education** has been provided to many students, irrespective of Caste, religion and community. Serving to the Minority Institutions in Tamilnadu for the development and welfare of their Institutions for past 30 years.

- Encouraging the **Sports personalities** by the method of allocating few seats with tuition fee waiver.
- Supplying the **food at free of cost** to patients of Cancer Institute, Adayar; Inmates of Banyan Orphanage and Little hearts Orphanage.
- Giving life time pension, Rs.1000 per month for **128 war Widowers**
- **Funding the NCC – Navy & Air Force** wings of the University.
- Full **Assistance** and offering all facilities for organizing NCC Camps for Navy, Army and Air force.
- Allocation of Few **seats for the children of Defense personalities**, who have done supreme service to our Nation.
- Founder Chancellor's patriotic and philanthropic approach is evident by the following contributions made towards natural Calamities and schemes.
- Kargil war fund- Rs. 5 lakhs
- Gujarat Earthquake relief fund- Rs.2 lakhs
- Government of TamilNadu -free meal scheme- Rs.5 Lakhs
- Government of Tamil Nadu -Cradle Baby scheme – Rs.15 Lakhs
- The institution conducts cycle rally, free medical camps, and blood donation camps to reach out to societal concerns. For neighbourhood communities, institute conducts free medical camp and dental camp.

* **Fostering global competencies among students**

Understanding the importance of global competency, the institution assists and trains our students in different means. Advisory Bureau of Higher Studies is one such avenue, where students are trained to take various competitive examinations like GRE, TOEFL, CAT etc., Various knowledge sharing MOU's are signed between University and overseas universities with a motive to enrich

the knowledge , get aware of the scientific challenges at global level and to get equipped in facing tough challenges.

*** Inculcating a sound value system among students**

Discipline is the integral component of our learning system. Teaching values is not an isolated entity of our system. This is a part and participle of our teaching and learning mechanism. Every class possess a counsellor, who counsels the students based on their need. To invoke and impart societal responsibility, various programmes and activities like blood donation camps, adopting schools, campus cleanliness programmes, programmes by eco club, NSS, NCC are conducted regularly.

*** Promoting use of technology**

- The students are encouraged to probe into the recent technical developments and carry out student based funded projects
- Student activity centres and Smart class rooms with writing board, Multimedia projector, public address system and display units are used apart from regular class room to make the knowledge transfer effective
- Wi-fi connectivity in many places of learning in the campus, broadband internet and intranet connectivity, intercoms and landlines have improved the ease in communication and knowledge acquisition

*** Quest for excellence**

The inclination towards excellence is a never ending process of our system. The quest for excellence is abundant with all necessary driving forces and principles that are embedded in our model of administration and learning mechanism. The enthusiasm imbued with dedication is making everyone in the institution as a valuable asset.

6.2 STRATEGY DEVELOPMENT AND DEPLOYMENT

6.2.1 Does the university have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?

Yes. In the past 28 years, various plans have been implemented to facilitate development. Periodic review committees have been appointed to assess the growth and development in the areas of infrastructure development, academic planning and progress, placement, budget etc.

* Vision and mission

The strategic planning is in line with the overall vision and mission of the University. The futuristic goal of the Institution is to be in the top 10 Universities of the NIRF ranking.

* Teaching and learning

Current trends are followed with respect to teaching methodologies to impart quality in teaching. Assessment of learning skills is reviewed by stringent methods of assessment in the internal evaluation as well as external. The feasibility study of open book examination is one such initiative.

* Research and development

Dean monitors the research in the school thereby in the departments and of every staff in it and called for periodic review meetings where their progress is monitored and measures are taken for correction and improvement. The objective of the University is to achieve h-index value of 50 with the consistent research publications. International collaboration in research projects is the focal point of the next phase of the research and development in the University.

* Community engagement

The community at large has been the beneficiary of various methodologies adopted to help the surrounding villages and the local youth in self employment

generation. Vocational training courses have been held to empower them. A comprehensive coaching system was induced for the civil services aspirants in the campus through JEPPIAAR IAS ACADEMY.

*** Human resource planning and development**

Significant involvement of stake holders in the management decision making policy is one strategic plan derived from the suggestions of various distinct personalities. Talent is recognized, encouraged to evolve as the leadership at every level. Due recognition is given for the exceptional resources with merit and excellence awards.

*** Industry interaction**

Great importance has been placed on meeting the requirements of the standards of the industry. Regular interaction meetings have been held between industry partners to assess and maintain standards. Industry centric student development is the vital element of our strategy in past, present and future.

*** Internationalisation**

Global competence is assured through the partnership with overseas institutions, which enable exchange programs and collaborative research. Many such collaborative efforts are in operation at the moment. Acquiring the International accreditation is one of the prime objectives of the strategic development model of the University.

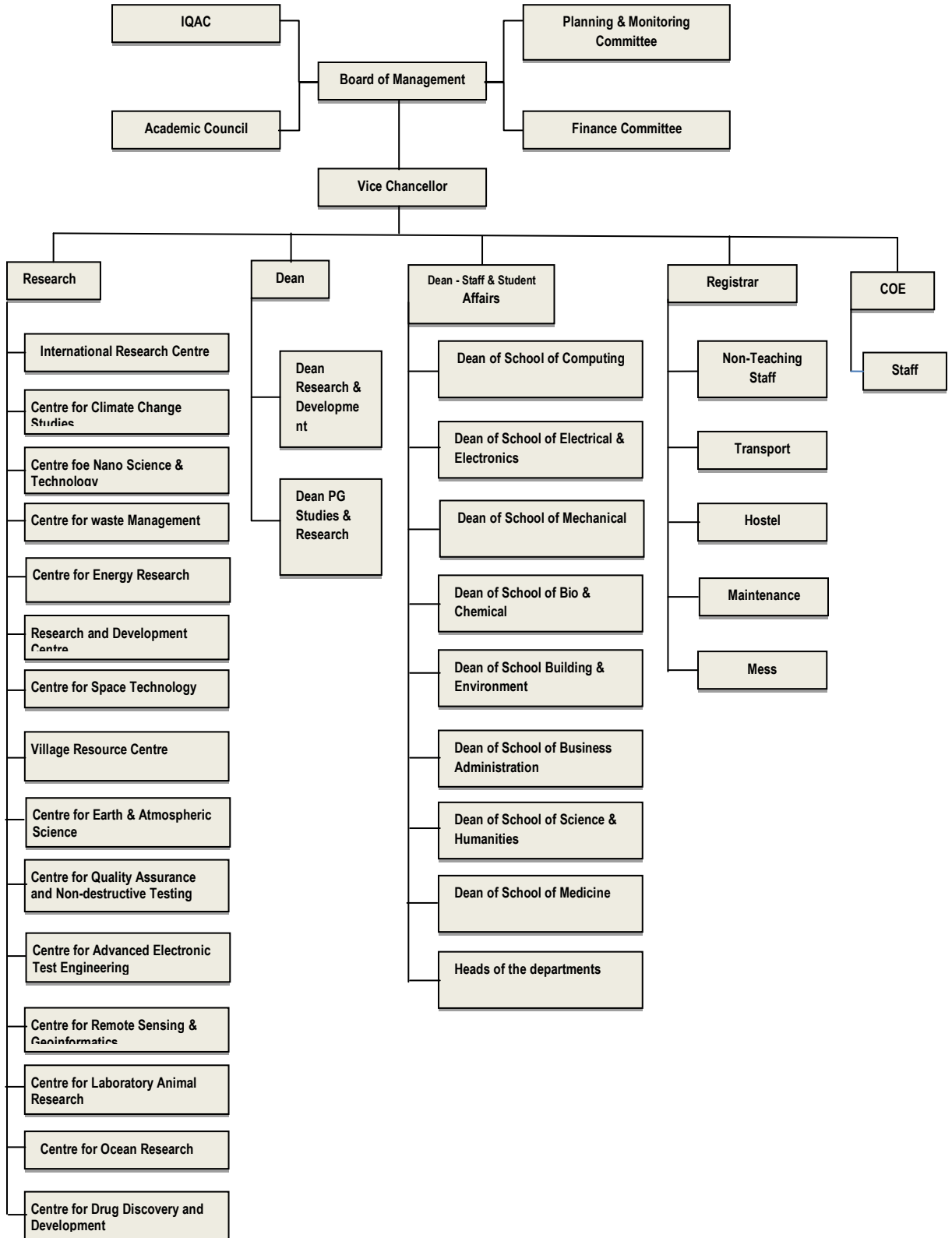
Apart from the above mentioned areas, the University is focussed in the implementation of the strategic plans for achieving excellence in every aspect of the development. Some of the initiatives are:

- Paper less University is one of the best policies adopted in the recent past and the imprints of this decision are progressive as well as

pragmatic insertions into the administrative system. This policy has become vital point of success for go green initiative of eco club that includes environmental protection

- Pyramidal model of development aims at the convergence of excellence in performance at the summit of the institutional success by strengthening the core value system, which is built on the fundamental roots of justice, peace and revolution
- University holds long term plans by virtue of transforming technology into patent and thereby into product
- Designing and developing a defense purpose satellite, which is an extension of the responsibility that the scale of **Sathyabama Sat** achievement brought into our system
- Aiming to become an epitome of technical expertise in any chosen field of engineering

6.2.2 Describe the university’s internal organizational structure and decision making processes and their effectiveness.



All the academic and administrative bodies have been reconstituted as per the latest regulations. All these meetings are being conducted as per the guidelines of the UGC.

The Board of Management is the most important in the Organizational hierarchy. The Planning and Monitoring Committee, Finance Committee, Advisory Committee and Academic Council are the other significant governing bodies. The Vice-Chancellor heads five statutory bodies - Deans, Departments, Research, Registrar and Controller of Examinations.

The Board of Management consists of the Vice-Chancellor, representative of the UGC, eminent academicians, representative of the trust and teaching staff of the University. Registrar is the convener of the meeting. Policy decisions are taken by the Board of Management for implementation and development of the University.

Academic Council is the policy making body for academics, appoints Board of Studies and approves syllabus formulated by Board of Studies. Academic Council discusses the viability of new courses and is evaluated before recommending to the Board of Management.

Finance Committee & Planning and Monitoring Board: We have Planning and Monitoring Board and Finance committee constituted from experts of UGC, MHRD and our faculties to advice and assist the Board of Management

6.2.3 **Does the university have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?**

Yes. To be an effective source of technical manpower thereby contributing to the growth of the nation. By constantly upgrading the quality of technical education, meeting the challenging needs of the twenty first century and effectively coordinating the activities of the Staff, Students and the Industry along with the ethical and moral standards.

The University has established Academic Bodies to deliberate on various quality related issues. In order to implement the actual policy, the University has applied for ISO Certifications. The University applies for ISO Certification in

every six months, evaluates and identifies the deviations. Implements the suggestions with the suitable measures for smooth and effective implementation of the proposals to sustain and enhance quality on continuous basis.

6.2.4 Does the university encourage its academic departments to function independently and autonomously and how does it ensure accountability?

Yes. Departments are allowed to exercise freedom in working autonomously within the limits of the articulated curriculum framework. Strict standards are monitored in this regard and accountability is based on assessment examinations, placements in industry, feedback from students. The performance of students in the internal examination as well as the external examinations and activities such as national and international competitions also serve as the standards in assessment.

6.2.5 During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?

S. No	Year	No. Of cases filed
1	2012	Nil
2	2013	Nil
3	2014	Nil
4	2015	Nil

6.2.6 How does the university ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder-relationship?

Yes. Grievances are addressed by means of class counsellors who obtain feedback from the students and parents. Suggestion / Complaint boxes are placed to improve quality and to prevent ragging.

Importance has been given to maintain and improve staff – student relationships inside and outside the class room. Students can avail the services of the staff even beyond the classroom to make learning a wholesome experience. Grievance redressal cell, discipline committee, Anti ragging committee ensure that all the types of complaints, suggestions and grievances are addressed in the best possible manner.

6.2.7 Does the university have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?

Yes. The student feedback obtained at the end of each semester. The feedback is carefully reviewed and the salient points are noted down. The Head of the department, Dean of the School convenes regular meetings with the faculty appreciating their performance and alerting on the negative issues. Apart from this management reviews the corrective measures on the negative feedback (if any) received. An explanation and corrective measure of action is asked from the staff to deal with the negative response in feedback.

6.2.8 Does the university conduct performance audit of the various departments?

Yes. The Departments are audited at the end of each academic year by the academic council. The performance of students, staff, upgradation of facilities, and review of technical competence in staff, publications and research carried out by the individual and the department, knowledge dissemination through seminars, conferences and guest lectures are carefully reviewed. The performance audit ends up with counselling each department and suggesting the corrective measures to be followed in the next academic year.

6.2.9 What mechanisms have been evolved by the university to identify the developmental needs of its affiliated institutions?

Not applicable

6.2.10 Does the university have a vibrant College Development Council (CDC) / Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.

Yes. The University has an overall Development Council, which functions through three different bodies namely- Student Development Cell, Staff Welfare Cell and Research & Development Cell. These three vital installations monitor, plan and implement various development strategies of the institutions at every possible level.

6.3 FACULTY EMPOWERMENT STRATEGIES

6.3.1 What efforts have been made to enhance the professional development of teaching and non-teaching staff?

The teaching and non teaching staffs are developed through Faculty development programmes and specialised training courses. They are encouraged to pursue their education through part time courses offered by the University.

6.3.2 What is the outcome of the review of various appraisal methods used by the university? List the important decisions.

A separate staff recruitment policy is defined clearly and has been adopted after approval from Board of Management.

The career advancement scheme (CAS) based on performance based assessment system (PABS) has been followed, which is in tune with the UGC 2010 regulations. API scores of the staff members are also calculated in order to assess their performance. Apart from these specific methods, there is a generic procedure for evaluating the teaching and non-teaching staff through three modes.

Self Evaluation: Self Evaluation is a process in which an individual rates the quality of his or her own work. This process is to encourage the staff to engage in training, continuous learning and development in the desired and interested areas as well as areas they need to focus upon, and the methods they can adapt to develop the desired skills. The reports are available in the IQAC cell of the University.

Students Evaluation: Students evaluation is the most common used method for assessing an instructor in the classroom. Departments gather evidence of teaching effectiveness from a variety of sources. These may include peer evaluation, letters from students, syllabi and instructional support material, individual teaching portfolios, what the teacher lacks in his/her teaching etc. The institution has a formal mechanism to obtain feedback from the students to improve the quality of teaching. The feedback on teaching by the faculty is obtained at the end of every semester and the reports are analyzed and maintained in IQAC.

Expert Evaluation: The Deans and the HOD concerned assess the faculty member. The Management conducts periodic meetings with the Deans and HOD'S to evaluate the performance of School, Department and individual staff.

6.3.3 What are the welfare schemes available for teaching and nonteaching staff? What percentage of staff have benefitted from these schemes in tkhe last four years? Give details.

The University has a Staff Welfare Cell, under which various welfare schemes are in functioning.

Some of the welfare schemes are:

- The children of the staff member who scores highest percentage in X and XII board exams are appreciated with a cash award of Rs.10,000
- Waiver of 50% of tuition fee for the children of staff member who has served the institute more than 10 yrs

- A sum of Rs.1,00,000 provided to the family of the staff, in case of death of the staff.
- A full time crèche functions inside the campus, to take care of the children of staff.
- Summer camps & science exhibitions are conducted for children of staff members.
- Maternity leave of 3 months are given to lady staff with salary.

6.3.4 What are the measures taken by the University for attracting and retaining eminent faculty?

Eminent faculty pioneering in the academic development and research are given higher positions in the University hierarchy. They are consulted for further development in academics and in research; the development process is planned with their active involvement.

6.3.5 Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.

Yes. Around 40% of the students in the University are girls. In the teaching staff there exists a balanced proportion of male and female staff. 30% of non teaching staff is ladies. Adequate care is taken to maintain equal recruitment of female and male staff to reduce gender bias.

6.3.6 Does the university conduct any gender sensitization programmes for its faculty?

No

6.3.7 What is the impact of the University's Academic Staff College Programmes in enhancing the competencies of the university faculty?

Not applicable

6.4 FINANCIAL MANAGEMENT AND RESOURCE

6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?

University is funded by Sathyabama Educational Trust. Finance Committee headed by the Vice Chancellor frames the budget requirement for the forthcoming academic year. This Finance Committee is being monitored by the Board of Management. The Finance Committee comprises of Vice-Chancellor, nominees from the board of management, trust member nominee, UGC nominee and the finance officer.

6.4.2 Does the university have a mechanism for internal and external audit? Give details.

University accounts are being audited in two categories. Auditing of General accounts and auditing of project accounts. General accounts are being audited every month, which is totally computerised and also attached with Tally software package. Separate Team of auditors drawn from the Department of Business Administration takes care of auditing the Project accounts. Further, all these accounts are finally audited by the professional auditors externally. This brings us the transparency and exactness in the system.

6.4.3 Are the institution's accounts audited regularly? Have there been any major audit objections, if so, how were they addressed?

As mentioned in the previous point, auditing of accounts are being done regularly and so far we have no audit objections.

6.4.4 Provide the audited income and expenditure statement of academic and administrative activities of the last four years.

The audited income and expenditure statements are maintained in the accounts department.

6.4.5 Narrate the efforts taken by the University for Resource Mobilization.

The funds required by the university are mobilized primarily from the Tuition fee collected from the students. Further the shortage of funds is being met by the funds from the Sponsoring Trust. The sponsoring Trust meets the deficit requirement every year.

6.4.6 Is there any provision for the university to create a corpus fund? If yes, give details.

As per the UGC Regulations, the University has created a corpus fund for an amount of 5 crores. However the University allocates a fixed percentage of the total funds available for the purpose of Research & Development and Library. As the income increases every year, the allocation of funds for Research & Development and Library also increases proportionally.

6.5 INTERNAL QUALITY ASSURANCE

6.5.1 Does university conduct academic audit of its departments? If yes, give details.

Yes. IQAC of Our University regularly conducts academic audit of its various Departments that comes under each School in order to assess the teaching-learning processes and its outcome based on the following parameters:

Teaching level:

- Qualification of faculty
- subject allocation based on faculty's' specialization and on their recent FIP attended/willingness by faculty
- course material preparation
- identification of students at the induction level by conducting tests

- usage of various teaching aids-innovative practices to motivate the students and to make them interactive & attentive both for theory and practical courses
- record keeping - attendance, syllabus, lesson plan, Continuous Assessment Tests (CAE) I, II, University marks, previous question papers, syllabus coverage
- special attention to slow learners
- mentoring the meritorious students to participate in curricular/co-curricular activities inside/outside the University,
- Assessment of Feedback from students on staff, curriculum , infrastructure- library, lab, internet facility, hostel, other services like bank, mess, transport, curriculum and action taken;
- Lab stock entry, maintenance of major equipments and its usage;
- Assessment of system through the feedback from parents/ alumni, analysis and action taken.

Department & School Level:

- Semester abroad programme
- certificate courses, skill development courses
- **high quality**-inplant training, internships, industrial visits, project works, guest lectures
- visit of eminent scientists to the respective School
- efficient utilization of infrastructure and resource persons of their own school - class rooms, laboratories and computer facility
- Sponsored Research labs like DST-FIST, and other associated research centres
- PG courses
- research publications by UG/PG students in peer reviewed journals
- Involving the students in minor projects

- placement records
- number of doctorates produced
- eminent alumni - engaged themselves in R&D activities of Govt/entrepreneurships
- motivating the students for higher education
- number of students engaged in higher studies at renowned foreign R&D institutes -updating the record periodically
- Memorandum of Understanding(MoU) with renowned R&D Institutes with in the country and abroad
- earn while you learn programmes
- number of Scholarship students and Tuition Fee waivers based on merit, GATE/GRE score of students in each batch
- API score of individual faculty member;
- **Insisting to keep up the standards in all the above parameters; thereby bench-marking at the Department level, extended to School level.**

6.5.2 Based on the recommendations of the academic audit, what specific measures have been taken by the university to improve teaching, learning and evaluation?

- Offering 'Open Elective' courses at each school level in order to cater the needs of passionate students to take up the course of his/her interest.
- Students have been given academic relaxation / freedom to choose the subject and the teacher through secured students' portal; they also give their feedback through the same portal.
- Every teacher is advised to be in their respective class room at least 5 minutes before the commencement of the period in order to ensure class room discipline.

- Assignments and re-tests are conducted to improve the performance of deserving students who represent the university for extracurricular and in co-curricular activities and also on medical grounds.
- Each course is allotted with a course coordinator, who is a senior faculty member and provides the scheme of respective course for teaching and evaluation.
- Rewarding students having 100% attendance.
- It is mandatory for every faculty member to associate himself/herself with some form of R&D activity viz., research guidance as supervisor, quality research publications, funded projects, high standard Faculty Improvement Programmes, patents, apart from their regular academic work that helps to advance themselves in academic and research career
- Skill development courses namely mushroom cultivation, laptop servicing, terrace farming, etc., to students.
- Knowledge sharing and excellence in Basic Sciences and Technology by establishing Research Centres and to carry out consultancy projects with the Industry people.

6.5.3 Is there a central body within the university to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

- The University has formulated Internal Quality Assurance Cell (IQAC) in the year 2007. IQAC is pro-active, dynamic and play significant role in academic and administrative governance of the institution. Dean of every school will be monitoring the execution of teaching-learning process and

the process of evaluation is done by the Internal Examination Cell.

- IQAC periodically reviews the teaching learning process and the report is discussed with the Board of Management for further action.
- Structure:

Chair Person

Dr.B.Sheela Rani, Vice Chancellor

Management Members

Dr.Marie Johnson, Director

Dr.Mariazeena Johnson, Director

Senior Administrative Officers

Dr.S.S..Rau, Registrar

Dr.K.V.Narayanan, Controller of Examinations

Dr.T.SasiPrabha, Dean, Research and Development

Dr.LogaShunmugam, Dean, Staff Affairs

Dr.G.Sundari, Dean, Student Affairs

Internal Members

Dr. V. Kavitha, School of S&H

Dr. C. Rameshkumar, School of S&H

Dr. C.L. Shilaja, School of S&H

Dr. S. Nithya, School of Management Studies

Mrs. V. Nirmalrani, School of Computing

External Member

Dr.K.Nirmala Prasad

Member, Tamilnadu State Council for Higher Education.

Nominee from Students' Alumni

Mr.Raja, Deputy General Manager

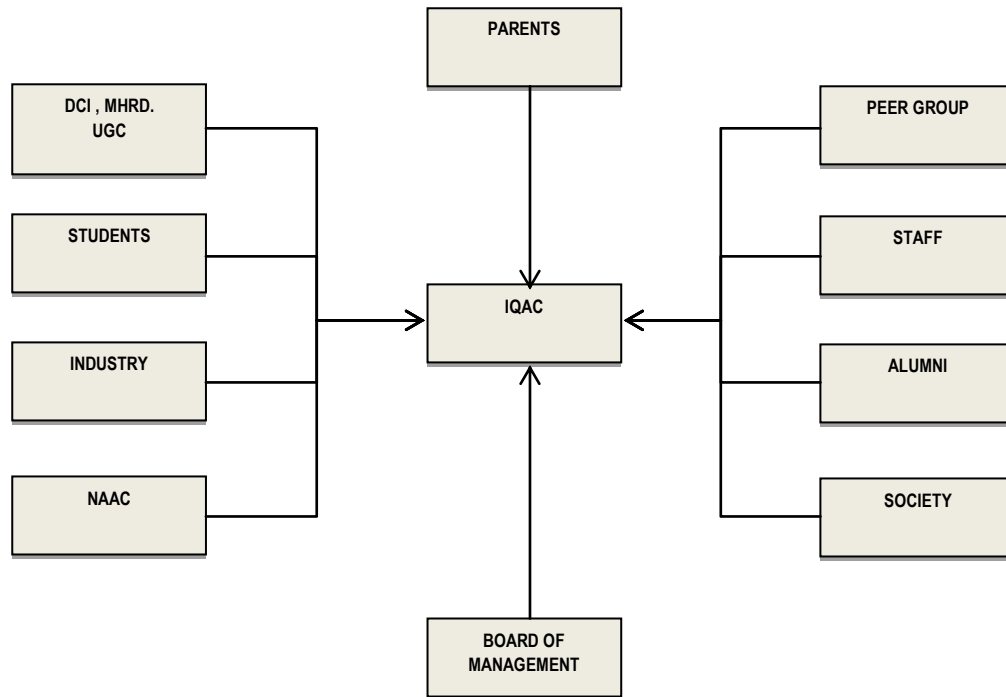
Qmax Test Equipments Private Limited, Sholinganallur.

IQAC Coordinator

Dr.M.Sundareswari, Dean, School of S & H.

- Methodologies of Operation:

The methodology of operation takes place as represented in the below structure.



- IQAC conducts periodic audit of all the Schools of the University in order to identify the shortfalls in TEACHING-LEARNING process and to instruct each department about the suitable measures to be undertaken by each Department/School thereby serving them to keep up their standards.
- It regularly conducts IQAC meetings once in every quarter with the chair person and with the external member to address and discuss about the quality measures to be followed.
- It organizes Quality related seminars/workshops/brain-storming sessions with suitable resource persons and also from the 'List of Trained Assessors' available in the NAAC website, at institutional level once in

every year. It is being planned to organize a National level conference on quality assurance and sustenance.

- Every year, Annual Quality Assurance Report (AQAR), is submitted mentioning the necessary details about the achievement in the format specified by NAAC.

- Outcome:

It helps our system to track and identify the deficit; to change the execution process by taking suitable measures and corrective action in order to address the issue, thereby improving the quality. It is an ongoing process in our system.

6.5.4 How IQAC contribute to institutionalizing quality assurance strategies and processes?

- Quality Circle Members (QCM) of each school – QCM/School is identified and they act as the link between the IQAC and the School.
- Internal QCM/IQAC meets and discuss about the plan of action to be chalked out. It is reviewed by the Chair/IQAC.
- Plan of action/ activities/ will be informed to the QCM/School, Deans of all the Schools and Heads of all the Departments in the meetings and through messages.
- The academic audit (based on the parameters mentioned in 6.5.1) will be executed as per the indicated time line for all the schools, where QCM /School are expected to play an active role along with the respective Deans/Heads.

- Report on academic audit of each school is prepared by the respective QCM/School and is verified by the internal QCM/IQAC. A copy of the QC report is submitted to IQAC.
- Every Dean/Head along with QCM/School is responsible to take the suitable measure and action depending on the subject/ it could be brought to the notice of the chair for her advice. They will submit a 'feedback report' after taking the action. This mechanism helps to identify the issue, to find a solution and thereby the quality could be optimised.
- To organise confidential Brain Storming sessions where Dean of each school will do a presentation with reference to the various parameters listed in section 6.5.1. A schedule for this activity is being planned to be reflected in the academic calendar of the University. This will help them to identify the best practices /issues in the other schools of our University. This will help them to compare their school with the contemporary schools of other institutes which will facilitate them to identify where they are and to redefine their strategies. This will initiate to benchmark themselves.

6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the University for Implementation?

- Increasing the number of admissions for disadvantaged sections of society and below poverty line – acid victims, differently abled students, etc.
- All University related communications to students, staff members and parents are carried out using paperless concept.
- Green Initiative and clean environment at each school level.
- Extension of “credit transfer for online courses” through “Swayam” under UGC notification.

- Health Card for students.
- To conduct regular coaching classes for slow learners and to improve the communication skill of students coming from rural parts of the country. Personality Development classes are introduced right from First Year onwards. Introducing “matlab” to learn mathematics I, II and III courses interactively and efficiently.
- Involving the meritorious students in “In-house” projects and to cultivate the practice of servicing to the nearby school students in their education.
- Conduct of Civil Service Courses.
- Reward-To recognise and appreciate the staff members for their remarkable contributions to the University in terms of Publications, Patents (granted), R&D Projects and any other notable achievements.

6.5.6 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.

“Dr.K.Nirmala Prasad, Member,Tamilnadu State Council for Higher Education” is the external member. She contributes with her valuable suggestions/ideas/comments that are helping us to fine tune the strategy to be followed; to enhance our quality in teaching, learning and research.

6.5.7 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?

As a policy and mission statement, the University has formulated mechanisms to look at the growth of this category

- “Women Empowerment Bureau(WEB)”
- “Student Development Cell (SDC)”
- “ANBU Foundation”(www.anbufoundation.org)

6.5.8 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?

Strategic planning and deployment, quality and effectiveness in practical application are the main policies concentrated to review the various departments.

Experts from academia and industry, our students and parents are involved in the decision making and policy implementation. The spectrum of stake holders' presence is ensured in different governing bodies such as BOM, Academic council and Planning & Monitoring committee.

The transparency in decision making and development is much evident with the monthly review meetings conducted in the first week by the top level management. This meeting is intended to share the policies, review the academic and research performance.

For Accreditation – Cycle : 2 Re-Assessment

- Experts from academia and industry, our students and parents are involved in the decision making and policy implementation. The spectrum of stake holders' presence is ensured in different governing bodies such as BOM, Academic council and Planning & Monitoring committee.
- The transparency in decision making and development is much evident with the monthly review meetings conducted in the first week by the top level management. This meeting is intended to share the policies, review the academic and research performance.
- Grievance redressal mechanism in place
- The University strategic and prospective plans cater various areas of development and some of them are:

The futuristic goal of the Institution is to be in the top 10 Universities of the NIRF ranking. The feasibility study of open book examination is one such initiative.

The objective of the University is to achieve h-index value of 50 with the consistent research publications. International collaboration in research projects is the focal point of the next phase of the research and development in the University.

A comprehensive coaching system was induced for the civil services aspirants in the campus through JEPPIAAR IAS ACADEMY.

For Accreditation – Cycle : 2 Re-Assessment

- Paper less University is one of the best policies adopted in the recent past and the imprints of this decision are progressive as well as pragmatic insertions into the administrative system. Pyramidal model of development aims at the convergence of excellence in performance at the summit of the institutional success by strengthening the core value system, which is built on the fundamental roots of justice, peace and revolution.
- All the academic and administrative bodies have been reconstituted as per the latest regulations. All these meetings are being conducted as per the guidelines of the UGC.
- A separate staff recruitment policy is defined clearly and has been adopted after approval from Board of Management.
- The career advancement scheme (CAS) based on performance based assessment system (PABS) has been followed, which is in tune with the UGC 2010 regulations. API scores of the staff members are also calculated in order to assess their performance.
- Adequate financial resources for development activities
- The audited income and expenditure statements are maintained in the accounts department. De-centralization of the administration is the reflexive measure taken from the suggestions of the academic experts. Diffused administrative model has been brought into the system with the induction of Deans for the respective schools and Deans for Student and Staff.

For Accreditation – Cycle : 2 Re-Assessment

- University allocates a fixed percentage of the total funds available for the purpose of Research & Development and Library. As the income increases, every year the allocation of funds for Research and Development and Library also increases proportionally.
- IQAC is pro-active, dynamic and play significant role in academic and administrative governance of the institution. Dean of every school will be monitoring the execution of teaching-learning process and the process of evaluation is done by the Internal Examination Cell.
- “Dr.K.Nirmala Prasad, Member, Tamilnadu State Council for Higher Education” is the external member. She contributes with her valuable suggestions/ideas/comments that are helping us to fine tune the strategy to be followed; to enhance our quality in teaching, learning and research.
- IQAC conducts periodic audit of all the Schools of the University in order to identify the shortfalls in TEACHING-LEARNING process and to instruct each department about the suitable measures to be undertaken by each Department/School thereby serving them to keep up their standards.
- Academic audit of each school is prepared by the respective QCM / School and is verified by the internal QCM/IQAC. A copy of the QC report is submitted to IQAC.

CRITERION VII

INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the university conduct a Green Audit of its campus?

- Yes. Green audit is being conducted regularly. It was reported that due to the poor quality of soil, coconut, banyan and other long living trees, which were planted were not growing. This set an alarm to start a green initiative so as to convert a portion of land by manuring and fertilizing, small decorative plants were planted. The University has initiated an eco club to identify places for planting trees and to take care of the soil fertility. The club consists of students and staff who are taking initiatives towards green campus. This club along with rotaract club also taken initiative towards terrace farming in the campus. As per the recommendations of the eminent academicians, the eco club of the University is working towards making the campus green. Plantation and maintenance of the saplings has become the rudimentary activities towards realizing go green vision of the management.

7.1.2 What are the initiatives taken by the university to make the campus eco-friendly?

- **Energy conservation**

New class rooms and labs which are under construction are planned with more ventilation and windows to reduce the need of lights and fans. We have an efficient power management system in place, which ensures the regulated power on the basis of demands. Provision of master switch to a floor in a block

enables all the lights and fans to get switched off at the end of class hours. Solar energy operated lamp was designed and installed as a pilot project by the students and an extension of this project is under pipeline.

- **Use of renewable energy**

Cooking in the mess halls is carried out by using solar energy. World largest solar cooking is installed and is used for daily domestic needs of the University. Few staff and students have started with the initiative of extending the solar energy tapping to meet the electricity needs of laboratories also.

- **Water harvesting**

Water harvesting is done in different parts of the University and sent to a large tank, where it undergoes reverse osmosis process of water purification and is used for drinking and laboratory usage.

- **Check dam construction**

Not applicable

- **Efforts for Carbon neutrality**

Only the University buses are allowed inside the campus, which is the only mass transit system. No private vehicles of staff or students are allowed inside the campus, and hence the pollution is almost nil. More trees are scheduled to be planted in future through eco club and a separate land space is allotted to encourage farming.

- **Plantation**

Trees like Azadirachta indica (Neem trees), Saraca asoca (Ashoka tree), Morinda citrifolia (Noni), Samanea saman (Rain tree), Delonix regia (flame of the forest), Terminalia catappa (Indian almond tree) and numerous varieties

of ornamental shrubs and medicinal herbs like Ocimum sanctum (Holy basil) and many others are grown in large numbers and are preserved.

- **Hazardous waste management**

University has a dedicated centre for waste management, which develops novel techniques to manage and dispose waste effectively. Bio gas plants are set up to productively to recycle the organic waste matter, which is produced in large quantities. Hazardous bio medical waste is incinerated regularly at a distance off the campus.

- **e-waste management**

e- waste like computers and its accessories, electrical cables are dispersed through buy back schemes. With the unification of departments in functioning as schools, the e- waste management has become a reality. Optimum utilization of the hardware accessories and sharing of several e-learning facilities are acting as the harpoons of the e-waste management.

- **any other (please specify)**

University is taking measurable initiatives towards reduction of the food and energy wastage in the campus. Planning and monitoring committee suggestions of the University are helping time and again for waste management; effective power supply management is one such example. Bio degradable and non bio degradable wastes are segregated separately in the campus and bio degradable wastes are used as food for cattle and used as manure for the plants and trees. Non bio degradable wastes are disposed through the waste disposal adopted through Chennai Metropolitan garbage cleaning methods. Paperless University will be the game changer towards boosting up objective of the environmental friendly campus.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.

The cognitive approach adopted in encouraging inter-disciplinary research through International research centre and Research and development centre is a specimen of innovation. Induction of “Technology business incubator” is termed by eminent academicians as the major step towards innovation in learning. This TBI is offering platform of opportunities for our young engineers and scientist in realizing their ideas into commercially viable products.

A scheme of “Earn while you learn” launched by our University has created a positive impact on the students. Students are encouraged to take up part time jobs in the Maintenance cell, where they are given opportunities to maintain, service and repair computers and machineries, help in report preparation, account and stock checking etc., and they are paid for their task by the University. By doing this, we have given an opportunity for the students to independently earn for their needs, which is really helping students coming from less economic background.

All the mess workers reach us to serve food with an apron printed- “Don’t waste food” which has reduced the wastage of food in recent days. Bullock carts and hand drawn trolleys are used instead of motor vehicles for transmitting food, books, refreshments, which contribute to fuel efficiency and pollution control inside the campus.

Institution is in the process of applying patent for the “SATHYABAMA SAT” which reflects the support that our system makes the student to experience their knowledge.

7.3 Best Practices

7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the university.

The conceptualization and implementation of Best Practices of the University is in line with the Four I and D Model proposed by the NAAC. The method followed includes, the Identification, Implementation, Institutionalization, Internalization and Dissemination.

The University assimilated and working consistently to disseminate the letter and spirit of the guide lines of the NAAC in its academic and administrative functioning. The University imbibes the social responsibility, skill centric student development in the planning and execution of the best practices. The University firmly believes in the facts that “Classrooms are Social Laboratories” and “Student is an opportunity to uphold the integrity of the Society “, this is very much reflexive in the best practices taken up and their implementation.

Practice-1: Online Student Information system and Attendance Tracking system

The Context

This is an initiative of IQAC; a close monitoring of uniform distribution of lecture hours for each subject is needed. And the students attending subject hours and evaluating student regularity and performance is the matter of analysis. To support this process, an online attendance tracking system was introduced; it can be accessed through our intranet web <http://192.168.15.101:8081/>

The online student and staff information system serves as a database to assist examination systems, corrective measures, sorting students based on marks or any other criteria etc. It also gives a clear understanding to the parents about the progress of their ward.

Objectives of the Practice

Parents send their wards to the University through University buses. But it has been observed that certain students miss their classes voluntarily and engage in activities that disturb the normal functioning of the University. To bring this under control, the absence of the student for a lecture/practical hour is brought to the notice of concerned department counsellor, Year Coordinator and HOD as soon as the hour gets over through an online attendance tracking system. An SMS is sent to the parent about the absence of the student immediately.

Online student information system is designed with a motive to inform the parent about the academic performance of the student and also to retrieve data about any student by any one inside the campus. This reduces the necessity of depending on the class counsellors and able to retrieve data without any waste of time.

Online staff information system is designed to retrieve the information about every staff. The faculty enters their details in the database with their basic qualifications, publications, specialisation etc., which can be retrieved by different managerial committees in ease.

The Practice

Parents who send their children to University will be generally in the perception that their ward is in the class. It happens sometimes that the students slip away and indulge in non academic and harmful activities in or out of the campus. To bring this under monitoring and control, every student parent is intimated immediately after each lecture hour if he/she is absent for the class. Moreover, the staffs who has taken the lecture, registers the attendance and the subject being taught. This helps the management to closely monitor online, about the number of hours the subject taught in a week, the no of hours a staff taking class in a week, student absenteeism, discipline and academic performance.

Certain student or staff data needed under any emergency situations like hospitalisation, malpractice etc., are easily tracked and the information reduces the searching process of hard copies of stacked files.

Evidence of Success

- Parents and students can check their academic performance with availability of online internal assessment and semester results in the website with the unique login system. Sustained parents feedback about this system is the mark of its success. Certain students attending only morning hours and absent during afternoon hours were identified and counselled. As the parents were informed then and there, they were personally cautioned and checked by their parents also.
- The faculty, who had taken less class hours in a week due to their personal leave or official work, was identified and they were instructed about the importance of uniformly distributing the syllabus and class hours throughout the week.
- Local police station needed the names and addresses of all day scholars staying outside hostels. The database was retrieved within hours and all details were submitted.
- Staff pursuing their PhD, having publications, involved in sponsored research is easily identified and sorted using this database system.

Challenges Encountered and Resources Required

Dedicated internet services throughout the day with very high bandwidth and with adequate computer systems are necessary to carry out this process besides to possess continuous tracking. There has been no negative feedback or problems encountered till now.

Practice-2 : TECHNOVATION – The best Project Selection

The Context

In general, there is a huge gap between industry expectation and academia output. To overcome this, best student projects from every department is chosen and a display of these projects is carried out in the University Auditorium.

Objectives

To identify quality projects of students and provide them with adequate encouragement, financial and technical assistance. This leads to progress in the form of industry tie up projects, sponsored research projects and patents.

The Practice

The project selected to be the best, undergoes a rigorous analysis by a panel of experts and discussions are made to bring out the project in a way that it will be useful to society and industry. Eminent industrialists and scientists are invited to assess the project in terms of novelty, importance and scope. Necessary modifications and quality enhancements are done technically to make it as a deliverable product. Those students are awarded with cash awards and certificates.

Evidence of Success

Student projects and their potential applications became the base of sponsored research themes and ideas. Increased number of participants and ever ending enthusiasm in show casing technical talent of the student are setting new benchmarks of its success. A healthy competitive spirit is inculcated in the young minds instigating a thirst for knowledge in them, which makes them to explore and discover.

Challenges Encountered and Resources Required

A dedicated team of staff members and potential resource persons are needed to groom these talented individuals. Issues emerge when heterogeneous combinations work together. Project development is a team work of technical students across discipline. Lack in connectivity and orientation among students from various disciplines sometimes results in the failure of projects.

Practice-3: Women empowerment

The Context

University believes in ensuring and improving the quality of life especially for women. A prosperous and secured life for women makes a progressive society. Women empowerment in 21st Century is the focal point for the progress and it is often challenged by the security that society offers for them at every stage of their life. Institution which belongs to the foundation mechanism, on which the next generation society evolves, has the fundamental responsibility of addressing this at the core level i.e. at the student level.

Objectives of the Practice

University learning atmosphere should encourage a positive vibe in the ideology of students to transform them as the best citizens of the society. Respecting the freedom of each other should be taught at grassroots level. Ensuring, enough level of protection and confidence building mechanism, especially for the female students. Women rights and freedom should be respected and protected.

The Practice

Inspiring women personalities are invited every year for “FEMFEST”, where students interact with these excellent individuals to get guidance in life changing strategies. University offers self-defense training for the requested girl students through NCC wing. Periodical Awareness Programs are conducted for the Girl students in the areas of self-defense and women rights. University also

possesses a full time psychologist to address and resolve the issues pertaining to confidence, righteous attitude etc. for faculty and students.

Women grievance addressal cell is established to look after and resolve various challenges faced by the women in the campus.

Evidence of Success

The campus is considered as the next home and safe heaven for girl child by the parents and their confidence is respected time and again in ensuring the same. Students and Faculty became pro-active in their approach towards resolving the challenges they face both physically and psychologically. Students' confidence has considerably increased in dealing with unforeseen situations of their life. 70% of the top most academic and administrative positions are handled by women shows the determination and responsibility that institute wishes to hold forever towards women empowerment.

Challenges Encountered and Resources Required

The right degree of balance should be maintained in the design and implementation of the women development centred programs. Fitting the self-defense program for women in the regular activity of the student is often challenging as it is not demanded by everyone. Conducting such programs in very small groups or sometimes one to one (if it is a psychological issue) always not feasible with the available resources and in the available time.

Practice-4: Student Development Cell

The Context

The University believes that implanting the seed of excitement in learning and exercise that is needed for the transformation of the student as the best citizen should takes place before they leave the campus. It is very true that the overall development of the student cannot be achieved only through curriculum based

education. The University should possess a well-designed system for the multi-talented growth pattern of the student.

Objectives of the Practice

The main objective of the SDC is, identifying the potential of each student and to facilitate them in achieving their academic goals through various clubs. A group of ignited minds clustered together should provide regular inputs for the complete development of a student.

The Practice

The University constituted 16 clubs such as Aero Modeling Club, Automobile Club, Computer Science Club, Design Club, Eco Club, Encore Engineering Club, Literary Club, Mathematics Club, Robotics Club, Rotaract Club, Science Club, Tamil club, Kalam's Club , Design club and Community Development Club for the cohesive development of the students through the window of Student Development Cell. The inclusion of Innovation club in to this spectrum is a significant addition in terms of nurturing the mind mapping methods in the application of the knowledge.

Evidence of Success

The leadership, team building, team spirit and strive for success are the by-products' of the success of these clubs. Students are part of various multi focused activities in and around the campus through these clubs. The accountability and approachability of the student towards the environmental protection, techno-scientific domain and socio-economic issues has improved drastically. The success of these clubs is very much evident with the effectiveness of the programs they conduct periodically and the active participation of members in delivering their duties besides self-learning.

Challenges Encountered and Resources Required

There were initial hiccups in the enrolment of members in some of the groups but after the successful execution of the early activities of the club, the active membership got enhanced.

Practice-5: Research Interactive Talks and Noble Quest

The Context

Cognitive thinking and learning is possible only through Research based teaching and this will be a reality through the interactive sessions with global intellectuals apart from conventional methods. Internet brought the abundance information to the student within a reach of click on the mouse, but the expertise of the technology can be reached to the student completely with the personal level interaction. This emphasize upon the importance of the Research Interactive Session.

Objectives of the Practice

Introducing and imparting the diversity in delivering technical flavor to student thought process by means of effective interaction with global leaders (Noble Laureate) in innovative research. Encouraging the Research based Teaching in the teaching fraternity and enthusiasm in Research Scholars.

The Practice

“Research Interactive Talk” and “Innovative Technology and Science Kaleidoscope-iTask” is organized by Faculty of Science & Humanities for the research thrust enhancement in U.G and P.G. students. Visit of **Prof. Dr. Walter Kohn, 1998 Nobel Laureate**, University of California, Santa Barbara for the “International Conference on Recent Advances in Physics for Interdisciplinary Developments” and his interaction with the best brains of Chennai Scientists of IITM, IGCAR, IMSc, CSIR motivated faculty, students and scientific community to address Global Energy Crisis and do inter-Disciplinary research to solve scientific and technological problems that plague the society.

This learning is enriched by live videoconferencing session of **Prof. Douglas Dean Osheroff, 1996 Nobel Laureate**, Stanford University.

Evidence of Success

The fruits of “Research Interactive Talk” and “i-Task” served as the platform for the students to convert their innovative ideas into project proposals. Students or Participants scientific enthusiasm are encouraged by ““Dr.Walter Kohn Award”. This has provided a forum of interaction for the Award Winners with GEM of India/Eminent Scientists/Frontier Researchers in their research area.

“**DST-FIST Program-2014**”: Fund for Improvement of S & T Infra structure in Universities and Higher Educational Institutions for 5 years duration of the project and to augment the research facilities in the Department of Physics to augment the research facilities in the Department of Physics. This encouragement helps in taking the fundamental research to the next level.

The success of RIT and i-task programs is very significant as it is helping the young research minds to get attracted towards fundamental research. The series of these talks are polarizing and serving as inspiration to the young scientist ideas.

Challenges Encountered and Resources Required

Tremendous effort was put behind in bringing the scientific minds together with ever tightly scheduled International Research Calendar.

Practice – 6: Skill centric training to students

The Context

Specific people for specific work should possess specific skill set. The training methods should be in place to serve the changing demands of the recruiters with the change in trends of the Industry. Central government proactive approach for skill empowerment through windows like SWAYAM (Study Webs of

Active –Learning for Young Aspiring Minds) and MOOCs (Massive Open Online Course) polarized institution’s infant initiatives towards skill development.

Objectives of the Practice

Skill set improvement by giving necessary training to the students through effective skill development courses, so that they are fit enough to meet the requirements of the Industry or work place. Self-employment opportunities should be empowered for the students by proper training to their inherent talents or skill set.

The Practice

Introducing several skill development courses such as “Organic farming and mushroom cultivation”, “Photography”, “Digital marketing” and “Laptop Servicing” for the increased employability through enriched skill component. Vigorous soft skill based training is offered to the student towards improving their chances of on-campus placement. Placement cell is very effective and proactive in ensuring the possibility of better placement in the campus selection for the students. Various other platforms or modes of this practice are the part of the departmental and institutional activities such as “Technology Business Incubator-TBI”, “public speaking courses” and “motivational classes”. University also provides “Beauty and wellness training, baking courses, ornamental fish culture, sea weed cultivation and solar lamp making for women, electrical wiring, plumbing, automobile mechanics and mobile servicing for men through dedicated cells.

Evidence of Success

Various skill development courses are offered in collaboration with MSME and through “My Saturday University” program served the purpose of enriched skill set among the students.

Challenges Encountered and Resources Required

Identifying the changing trends and the required skill set for the Industry, analyzing the possibility of self-employment and implementing the same to the trainees in the convenient time frame is the challenge faced often. The utilization of existing laboratory facilities is the greater advantage as far as the resource management is concerned.

Practice-7: Inclusive societal development

The Context

The leadership motto of “Togetherness is the tool for better tomorrow” instigated the idea of offering education to the underprivileged students and in reaching out to the weaker sections of the society in every possible manner. The University invests special care and interest in Service to Society (apart from offering Quality Education) through a spectrum of activities can be regarded as the finest jewel of the best practices. The Management strongly believes that “Service to Human is Service to God”, which reflects in the value added to the social causes and needs. The University always wishes to stand as the torch bearer in extending helping hand to the social empowerment.

Objectives of the Practice

The University intend to contribute for the cohesive development model of society by active participation in various socio-concern activities. This includes extension of education and employment facilities to the coastal areas of Tamilnadu, which is vital for the enhancement of living standards of the people. Reaching out to under privileged sections of the society thereby playing an effective and humble role in their progress.

The Practice

The objectives of this practice are achieved by diversified programs such as “**SCHOOL ADOPTION**”, “**COASTAL PEOPLE DEVELOPMENT (CPD)**”, “**MEGA MEDICAL CAMP**”, “**SCHOLARSHIP SCHEMES**”, “**VISUALLY**

IMPAIRED CHILDREN EDUCATION” ,“MY SATURDAY UNIVERSITY” “FOOD FOR ALL” and “EDUCATION TO ACID VICTIMS”

Evidence of Success

The success of “School Adoption” program is resonant through the powerful medium of “Community Development Club” of the University. Students themselves are the part of this program by reaching and teaching out to drop outs of the school in neighbourhood areas, corporation schools and also serving as key players in developing basic amenities and ambience of learning with the unflinching support received from the management.

The dream of getting world class education was brought to reality by extending the financial assistance (fee concession) to the coastal people of the state through CPD program. The success of the program is evident from the increased percentage of educated youth in this region.

Once in 3 months mega Dental checkup camps were organized by the Dental Hospital of the University in the nearby areas of Kumarannagar, Thoraipakkam and Navalur. The increased out patients for the follow up visit to the hospital is the result of the grand success of these mega camps.

Various scholarship schemes are in place for the meritorious students and Madam Remibai Jeppiaar Scheme is one such program where a student can get a scholarship amount of upto 1 Lakh rupees in the duration of the course. Visually Impaired students are offered free education and moral support in continuing their aspiration to excel. Providing free education to the differently abled and acid victims has brought light into the lives of these success deserving citizens of our society. “My Saturday University” is a program directed to improve the scientific intent in the school students and the success is reflective in the science competitions conducted by the University.

Inspired by the ideology of Thiru Dr.M.G.Ramachandran, the University extends unflinching support to social causes. The University offers free food for all the

visitors of the campus and also feel humble in supplying the needed lunch for the nearby orphanage children. This practice is helping the student to understand the basic values of living such as helping the needed at the door steps of their campus life. Jeppiaar IAS Academy is a landmark initiative towards the cohesive societal development by giving hope for the civil service aspirations of youngsters.

Challenges Encountered and Resources Required

In accomplishing a task associated with social cause, the challenges are natural but the University pulls up all the resources for the extension activities towards society and firmly believes in cohesive development. With this approach, all the challenges encountered are effectively surpassed. Any extension of assistance from Government agencies will boost up this process to the highest degree of societal service.

For Accreditation – Cycle : 2 Re-Assessment

Though there are no areas suggested by the committee on scope for improvement on best practices, University continues to excel in quality, supports neighbourhood communities, and maintains the best stakeholder relationship. Some of the noteworthy best practices are:

- Solar thermal water heating system to support hostel requirement
- Water harvesting, bio diesel utilization, effective waste management is appreciable
- Extensive green covering of campus is desirable
 - Green audit is being conducted regularly. It was reported that due to the poor quality of soil, coconut, banyan and other long living trees, which were planted were not growing. This set an alarm to start a green initiative so as to convert a portion of land by manuring and fertilizing; small decorative plants were planted.
 - University has initiated an eco club to identify places for planting trees and to take care of the soil fertility. The club consists of students and staff who are taking initiatives towards green campus. This club along with rotaract club also taken initiative towards terrace farming in the campus.
 - As per the recommendations of the eminent academicians, the eco club of the University is working towards making the campus green. Plantation and maintenance of the saplings has become the rudimentary activities towards realizing go green vision of the management.
- Promotion of interdisciplinary research through R&D Centres
- Establishment of Technology Business Incubator
- Institutional encouragement for patent filing
- University has been selected to build student centric nano satellite
- On-campus placement of students
- On-campus ISRO and IMD facilities

PART – D EVALUATIVE REPORT OF THE DEPARTMENTS

1. SCHOOL OF COMPUTING

1. **Name of the Department** : Department of Computer Science and Engineering
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university?** : School of the University
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)** : 2:3:2
UG: BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING (4 YEARS)
PG: MASTER OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING (2 YEARS)
PG: MASTER OF ENGINEERING (PART TIME – 3 YEARS)
*UG: DUAL DEGREE (4 YEARS)
RESEARCH: MTech by Research (PART TIME/FULLTIME)
RESEARCH: Ph.D - Doctorate in Faculty of Computer Science and Engineering (PART TIME/FULLTIME)
5. **Inter Disciplinary programmes and departments involved** : UG : NIL

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

CCNA in collaboration with CISCO NETWORKING ACADEMY

MOBILE APPLICATION DEVELOPMENT and RICH INTERNET APPLICATIONS are the elective subjects offered to all the final year students.

This course has been designed and conducted in collaboration with VIRTUSA.

Certification courses from IBM,Microsoft and Oracle.

Software Testing and BigData courses are introduced as Industry electives in association with INFOSYS.

7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems** : Semester – Absolute Credit Based System

9. **Participation of the department in the courses offered by other departments**

Department Offers the following Courses:

Name of Course	Name of Department where the course is offered
Fundamentals of Programming	Electronics & Instrumentation Engineering Electronics & Telecommunication Engineering, Mechanical Engineering, Bio-Informatics Engineering, Automobile Engineering Electrical and Electronics Engineering Chemical Engineering.

Name of Subject	Name of Department where the course is offered
Object Oriented Programming	Electronics & Instrumentation Engineering Electronics & Telecommunication Engineering Electrical and Electronics Engineering Chemical Engineering Bio-Informatics Engineering M.Sc(Mathematics)
Object Oriented Analysis and Design DataBase Management System Artificial Neural Network Data Structures and Algorithms	Bio-Informatics Engineering
Advanced Computer Programming	M.Tech Programme
Numerical Maths and Programming Concepts Multimedia Systems	MSc (Physics)

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled	Actual (including CAS & MPS)
Professor	09	09	NA
Associate professors	12	12	NA
Assistant Professors	30	30	NA

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of PhD/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	PhD	M.Tech (By Research)
1.	Dr.M.Lakshmi	M.E.,Ph.D.,	Professor & Dean	Networks, Data Mining	1	20	8	NIL
2.	Dr. S. Murugan	M.E.,Ph.D.,	Professor & HOD	Web Technology, Cloud Computing, Big Data, Data Structures	Nil	16	6	niL
3.	Dr.B.Bharathi	M.E., M.B.A., Ph.D.,	Professor	Software engineering, Network Security	nil	15	8	nil
4.	Dr.R.Aroul Canesanne	M.E.,Ph.D.,	Professor	Software Engineering, Data Mining	1	13	4	NIL
5.	Dr. V. Ulagamuthalvi	M.E.,Ph.D.,	Professor	Image Processing	NIL	14	4	NIL
6.	Dr. S Prayla Shyry	M.E.,Ph.D.,	Professor	Networks Security	NIL	10	NIL	NIL
7.	Dr. N. Srinivasan	Ph.D.	Professor	Information Retrieval, software Architecture	NIL	19	3	NIL
8.	Dr. G. Meera Gandhi	M.E.Ph.D.	Professor	network security, data mining	2	25	8	1
9.	Dr. B. Muthu Kumar	M.E.Ph.D.,	Professor	Network Security,	Nil	17	8	Nil
10.	Dr.Prem Jacob	M.E.,Ph.D.,	Associate Professor	Software Testing	NIL	12	2	NIL
11.	Dr. L. Lakshmanan	M.E.,Ph.D.,	Associate Professor	Computer Networks	NIL	15	01	nil
12.	Mr.E.Nagarajan	M.E.,(Ph.D.),	Associate Professor	Data Mining, Business Intelligence	NIL	13	NIL	NIL

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of PhD/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	PhD	M.Tech (By Research)
13.	Dr.Ashok Kumar	M.E.,Ph.D.,	Associate Professor	Grid & Distributed Computing, cloud	NIL	13	NIL	NIL
14.	Mr. N Srinivasan	M.E.,(Ph.D)	Associate Professor	Soft Computing Techniques	NIL	13	Nil	NIL
15.	Ms.B.Ankayarkanni	M.E.,(Ph.D.),	Associate Professor	Image Processing, Compilers	NIL	13	NIL	NIL
16.	Ms.S.Prince Mary	M.E.,(Ph.D.),	Associate Professor	Programming Languages & web Mining	NIL	13	NIL	NIL
17.	Mrs. C. Deepa	M.E.,(Ph.D.),	Associate Professor	Wireless sensor networks	Nil	13	Nil	Nil
18.	Dr. S. Vigneshwari	M.E.,Ph.D.,	Associate Professor	Advanced Programming Languages, Semantic Web mining and ontologies, Computational Intelligence	6 Months	13	Nil	NIL
19.	Mrs. M. D. Anto Praveena	M.E.,(Ph.D.),	Associate Professor	Bigdata, Datastructures	nil	13	nil	nil
20.	Mrs. L. Suji Helen	M.E.,(Ph.D.),	Associate Professor	Wireless Sensor Networks	Nil	13	nil	nil
21.	Mr. N. V. Rajeesh Kumar	M.E.,(Ph.D.),	Assistant Professor	Data Mining	6	4	NIL	NIL
22.	Ms.A.Mary Posonia	M.E.,(Ph.D.),	Assistant Professor	Data mining, data bases	NIL	11	NIL	NIL
23.	Ms.Viji Amutha Mary	M.Tech.,(Ph.D.),	Assistant Professor	Data Structures, Data Mining	NIL	9	NIL	NIL

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of PhD/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	PhD	M.Tech (By Research)
24.	Mrs. R. Sathyabama Krishna	M.E.,(Ph.D.),	Assistant Professor	Data Structures,Programming Languages, Data Mining	NIL	10	NIL	NIL
25.	Mr. P.M.S.S. Chandu	M.E.,(Ph.D.),	Assistant Professor	Programming languages & Databases	NIL	9	Nil	nil
26.	Mrs. Ramya G Franklin	M.E.,(Ph.D.),	Assistant Professor	Data structures,Big Data	2	10	Nil	Nil
27.	Mr.Saravanan	M.E.,(Ph.D.),	Assistant Professor	Programming Languages & Data Mining	1	9	NIL	NIL
28.	Mrs. L. K. Joshila Grace	M.E.,(Ph.D.),	Assistant Professor	Data Mining	NIL	9	NIL	NIL
29.	Ms.P.Asha	M.E.,(Ph.D.),	Assistant Professor	Data Mining	NIL	12	NIL	NIL
30.	Mrs. S. P. Godlin Jasil	M.E.,(Ph.D.),	Assistant Professor	Big Data	NIL	10	NIL	NIL
31.	Mrs. S. Bhanumathi	M.E.,(Ph.D.),	Assistant Professor	Data Mining	NIL	10	NIL	NIL
32.	Ms. S L Jany Shabu	M.E.,(Ph.D.),	Assistant Professor	Image Processing	NIL	9	NIL	NIL
33.	Ms A Safiya Parvin	M.E.,(Ph.D.),	Assistant Professor	Cloud Computing,Green Computing,Programming Languages	NIL	9	NIL	NIL
34.	Ms Mercy Paul Selvan	M.E.,(Ph.D.),	Assistant Professor	Web mining	NIL	7	NIL	NIL
35.	Mr.Sethuraman	M.E.,(Ph.D.),	Assistant Professor	Cloud computing, Distributed Systems	7	2	Nil	NIL
36.	Ms.Refonaa	M.E.,(Ph.D.),	Assistant Professor	Computer networking and programming languages		4	Nil	NIL
37.	Ms.Stefi Sterlin	M.E.,(Ph.D.),	Assistant Professor	Computer Networking	NIL	4	Nil	NIL
38.	Mr.Baron Sam	M.E.,(Ph.D.),	Assistant Professor	image processing,operating systems,	NIL	5	NIL	NIL

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of PhD/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	PhD	M.Tech (By Research)
39.	Mr.Pio Sajin	M.E.,(Ph.D.),	Assistant Professor	Compiler Design, Programming Languages	NIL	4	Nil	NIL
40.	Mr. A. Yovan Felix	M.E.,(Ph.D.),	Assistant Professor	Big Data	NIL	9		
41.	Mr. A. Jesudoss	M.E.,(Ph.D.),	Assistant Professor	Security, Networks, Web Technologies, Programming	Nil	9	Nil	NIL
42.	Mrs. A. C. Shantha Sheela	M.E.,(Ph.D.),	Assistant Professor	Web Mining	NIL	10	NIL	NIL
43.	Mr. A. Ronald Doni	M.E.,(Ph.D.),	Assistant Professor	Big Data	nil	7	nil	nil
44.	Mr. J. Jerin Jose	M.E.,(Ph.D.),	Assistant Professor	Data Mining	nil	7	nil	nil
45.	Mrs. J. Jesila Mol	M.E.,(Ph.D.),	Assistant Professor	Big Data	nil	9	nil	nil
46.	Mrs. B. Mary Reni	M.E.,(Ph.D.),	Assistant Professor	Big Data	Nil	9	Nil	Nil
47.	Mrs. S. Mary Immaculate	M.E.,(Ph.D.),	Assistant Professor	Image Processing	NIL	4	Nil	Nil
48.	Mrs. J. Jackulin Reeja	M.E.,(Ph.D.),	Assistant Professor	Data Mining	NIL	4	Nil	Nil
49.	Mr.E.John Bruce	M.E.,M.B.A., (Ph.D.),	Assistant Professor	Software engineering	2	16	Nil	Nil
50.	Ms.E.V.Manju	M.E.	Assistant Professor	Data Structures	nil	2	Nil	nil
51.	Mr. S. Damodharan	M.E.,(Ph.D.),	Assistant Professor	Data Mining	NIL	5	Nil	nil

12. **List of senior visiting fellows, adjunct faculty, emeritus professors** :

Dr. Heinrich Voss, Professor, Hamburg University of Technology, Germany.

Dr. Nikitas Marinos Sgouros, Professor, University of Piraeus, Greece.

Dr. Saroja Kanchi, Professor, Computer Science & Engineering, Kettering University, USA.

Dr. Ajith Abraham, School of Computer Science & Engineering, Chung-Ang University, Ostrava, Czech Republic.

Dr. S.K.Ghosh, Professor, Department of Computer Science & Engineering, IIT, Kharagpur.

Dr. M.Arumugam, Founder & CEO, Broadline Technologies Ltd, Chennai.

Mr. Sankaranarayanan Balasubramanian, Technical Lead, Cisco System India Private Limited, Chennai.

Dr. Rajat Subhra Chakraborty, Professor, Computer Science & Engineering, IIT, Kharagpur.

Dr. Satya Prasad, Professor, Jawaharlal Nehru Technological University, Kakinada.

Dr. A.K.Pattabiraman, Head, Accreditation Process for South India, TCS, Chennai.

Dr. B.Ravindran, Professor, Department of CSE, IIT, Chennai.

Dr. Ling Tok Wang, Professor, Department of Computer Science, School of Computing, National University of Singapore, Singapore-117417

Dr. Eyas El-Qawasmeh, Professor, Dept of Computer Science, King Saud University

Dr. David Yau, Professor, Singapore University of Technology and Design, Singapore

Dr. Ahmad Kamil Mahmood, Dean of Faculty of Science and Information Technology, Universiti Teknologi Petronas, Malaysia.

Dr. Hema .A. Murthy, Professor, Department of CSE, Chennai. 600036

Dr. V.Vaidehi, Dean, School of Computing, VIT University, Chennai.

Dr.P.Santhi Thilagam,Professor & HOD,Department of CSE,NITK,Surathkal,P.O.Srinivasanagar,Mangalore - 575025

Mr. Prakash Arunachalam, Vice President,Virtusa,Chennai.

Mr.Balraj Kunnath Sr. Dir. Architecture & Strategy, Microsoft.

Mr.Boopathy Rajendran,Director EAS BPM,Cognizant.

Mr.Rajan Govind Ramakrishnan,Solution Architect,Mindtree Ltd.

Mr.Sankaranarayanan Balasubramaniam, Sr. Tech Lead, Control Plane/SPVSS

13. **Percentage of classes taken by temporary faculty-programme-wise information** : NIL

14. **Programme- wise Student Teacher ratio**

By taking into account the subject handled by Faculty Members of other department into consideration. The staff student ratio of the department is 1:15

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual staff (technical) :**

	Sanctioned	Filled
Technical staff	10	10

16. **Research thrust areas as recognized by major funding agencies**

- Data mining
- Image processing
- Wireless Sensor Networks
- Software Engineering
- Machine Learning
- Big Data
- Cloud Computing

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.M.Lakshmi	Development Of User Friendly Graphical User Interface(GUI) Application Softwares For ATE	Qmax Test Equipments Pvt., Limited	2007	42 lakhs	Feb 2007- March 2009
2	Dr.M.Lakshmi Mr.E.Nagarajan	Development of data mining tool for sequencing assembly / disassembly, of the Fuel Transfer Arm for PFBR and identification of its failure modes during operation	Indira Gandhi Center For Atomic Research (Igcarr), Kalpakkam	2012	9.61 lakhs	April 2012 to Dec 2013
3	School of computing	DST-FST program 2014	DST	2014	Rs. 22 Lakhs	5 years
4	Dr.M.Lakshmi, & Dr. L.Lakshmanan,	Improvement Of S&T Infrastructure In Universities And Higher Educational Institutions (Fist) Program-2016	DST	Proposal submitted 2016	Rs.97,85,430	
5	Dr. Jayshree Nellore Dr. S. Vigneshwari Dr. Daniel Alex Anand	Big Data Solutions for Predicting the Mental Illness from Large Repository of Scientific Publications	DST	Proposal submitted 2016	Rs.18,14,500	3 years

18. **Inter-institutional collaborative projects and associated grants received** : NIL

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received** :

Fund for Improvement of S&T infrastructure in universities & higher educational institutions (FIST)" for Setting up "Cloud Computing Lab" amount sanctioned - 22lakhs - five years - 2015-2020.

20. **Research facility / centre with**

- State Recognition : NIL
- National Recognition : CENTRE FOR SPACE TECHNOLOGY, CENTRE FOR NANO SCIENCE AND NANO TECHNOLOGY, CENTRE FOR REMOTE SENSING AND GEOINFORMATICS, CENTRE FOR, CENTRE FOR EARTH AND ATMOSPHERIC SCIENCE
- International Recognition : CISCO NETWORKING ACADEMY, VIRTUSA LAB

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

S.No	Name of the Equipment	Agency Sponsored / Industry
1	Rich Internet Applications Lab	Virtusa Pvt. Ltd.
2	Mobile Application Development Lab	Virtusa Pvt. Ltd.
3	Cloud Computing Lab	DST-FIST, Government of India.

22. **Publications - CSE**

Number of papers published in peer reviewed journals (national / international)

- National Journals }
 - International Journals } 534
- Monographs - Nil
- Chapters in Books - Nil
- Edited Books - 06

- Books with ISBN with details of publishers - Nil
- Number listed in International Database
 - Scopus - 375
 - Web of Science - 19
- Citation Index - 1 - 10/ 3.28
- SNIP - 0.034 - 1.35
- SJR - 0.044 - 1.223
- Impact Factor - range / average - 0.015-1.35
- h-index - 3

23. **Details of patents and income generated :**

Sr. No	Name of Principal Investigator	Title of the Project	Beneficiary	Year of Sanction	Status
1	Dr. M. Lakshmi Mr.J.Vivek	Auto Alert System For 108 Emergency Services	108 Emergency services	2015	Patent Filed. 4190/che/2015

24. **Areas of consultancy and income generated**

Number of teachers engaged in consultancy and the revenue generated:

Sr. No	Name of Principal Investigator	Title of the Project	Beneficiary	Year of Sanction	Duration
1	Dr. M. Lakshmi Mr. R. Sethuraman Dr. B. Bharathi	Automatic Patient Reminder System	Adyar Cancer Institute	2014	1 Year

Sr. No	Name of Principal Investigator	Title of the Project	Beneficiary	Year of Sanction	Duration
2	Dr. M. Lakshmi Mr. R. Sethuraman	Dynamic GIS Application for Crime Monitoring in Chennai	Office of the Commissioner of Police	2015	1 Year
3	Dr.S.Murugan Mr. J. Jabez	Visitor Management Application for software Parks	Bharath Enterprises	2016	1 Year

S.No	Sponsoring Agency	Nature of Consultancy	Duration	Amount Sanctioned
1	WIPRO	Training for Placed student	12 days	9,000
2	WIPRO	Training for Placed student	10 days	6,000
3	WIPRO	Training for Placed student	15 days	12,000
4	WIPRO	Training for Placed student	2 days	1,500
5	WIPRO	Training for Wipro Employees	16 days	33,000
GROSS				66,500

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad: IGCAR,CVRDE,CTS,WIPRO**

April 2010 to March 2014 - Visited FRTG/IGCAR for Data mining project - Monthly twice.

Oct 2010 visited CTS for discussion of TISC 2010 meeting and discussing.

Nov 5th 2014 visited MIND TREE lab for syllabus revision regarding.

26. Faculty serving in

a) National committees b) International committees c) Editorial Boards d) any other (please specify)

S.No.	Name of Staff	Editor/Reviewer	Name of Journal/Conference
1	Dr.B.Bharathi	Reviewer	International Journal of Engineering and Technology (IJET)
2	Dr.B.Bharathi	Reviewer	International Journal of Computer Science and Information Systems (IJCSIS).
3	Dr.B.Bharathi	Technical Committee Member	4th IEEE International Conference on Computer Science and Information Technology (ICCSIT 2011), Chegudu, China
4	Dr.B.Bharathi	Technical Committe Member	3rd International Conference on Communication Software and Networks (ICCSN 2011), X'ian, China.
5	Dr.M Lakshmi	Reviewer	International Journal of Advancements in Computing Technologies(IJACT)
6	Dr.M Lakshmi	Reviewer	International Journal of Information Processing and Management(IJIPM)
7	Dr. M Lakshmi	Reviewer	Bonfiring International Journals
8	Dr.M Lakshmi	Reviewer	5th International Conference on Society and Information Technology, March 4-7, 2014, Orlando, Florida, USA
9	Dr.M Lakshmi	Reviewer and Session Chair	National Conference on Emerging Trends in Information and Communication Technologies(NCETICT), 2012
10	Dr. M Lakshmi	Reviewer and Session Chair	International Conference on Advanced Computing, Networking and Security (Adcons-2011) Department of Computer Science & Engineering, NITK – Surathkal December 16 – 18, 2011
11	Dr. M Lakshmi	Reviewer and session Chair	The International Conference on Information Science And Applications ICISA 2010"Panimalar Engineering College,February 6, 2010
12	Dr. M Lakshmi	Session Chair	National Conferenc on Convergence of Bigdata and Cloud Computing, 17th &18th March 2014, Dept of CSE, SRM University.

S.No.	Name of Staff	Editor/Reviewer	Name of Journal/Conference
13	Dr. M Lakshmi	Keynote Speaker, Reviewer, Session Chair	IIInd International Conference on 'Advanced Computing and Communication Technologies for High Performance Applications', Federal Institute of Science and Technology [FISAT], Angamaly, Kerela, December 8th – 10th 2010.
14	Dr.B.Bharathi	Judge	Project Contest 2014, Sai Ram Engineering College, Chennai
15	Dr.B.Bharathi	Reviewer	Indian Journal of Science and Technology
16	Dr.Muthukumar	Reviewer	KSII Transactions on Internet and Information Systems
17	Dr.S.Murugan	Reviewer	Journal of Engineering Science and Technology - Taylors University
18	Dr.B.Bharathi	Reviewer	Egyptian Informatics Journal
19	Dr. K.Ashok kumar	Reviewer	Journal of Agricultural Science and Technology (JAST) -J. Agr. Sci. Tech
20	Dr. K.Ashok kumar	Reviewer	Indian Journal of Science and Technology (IJST).

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

S.No	Date	Name of the Program	Name of Resource person/Topic
1.	04/03/2016 – 05/03/2016	Workshop	Mr. Arun and Mr. Dinesh - Flextronics Technologies – Web Application using PHP
2.	01/08/2016 – 02/08/2016	Student Enrichment Program	Mr.Rajesh Kumar, Wipro Technologies – Software Testing and Selenium Tool

S.No	Date	Name of the Program	Name of Resource person/Topic
3.	08/08/2016 – 09/08/2016	Student Enrichment Program	Ms.Gokilavani, Paypal systems – Software Test Management and Testopia Tool
4.	10/06/2016 – 11/06/2016	Faculty Development Program	Mr.Sethuraman - FDP on Php and MySql
5.	13/06/2016 – 14/06/2016	Faculty Development Program	Mr.Nagarajan - FDP on python programming
6.	20/08/2015 – 21/08/2015	Workshop	ATUL JALAN, Lead in the Research and Development Department in Lucideus Research Labs, Indian Institute of Technology Bombay - Secure Android Application Development
7.	31/03/2016 – 05/04/2016	Workshop	Mr.Ashok Kumar - CLOUD AND OPEN STACK WORKSHOP
8.	27/04/2016 – 07/05/2016	Faculty Development Program	DST-BDI sponsored Training Programme on Big Data Analytics
9.	12-09-2014	Faculty Development Program	Mr. Ranga, Group Leader, Assistant Manager in Delivering Information System, NIIT. Mr.Shriram Raghu, Business Development Executive,NIIT
10.	14-08-2014	Faculty Development Program	Er. Nixon Antony, CSS corp as a Senior Support Engineer for Voip Process.
11.	2-05-2014	Faculty Development Program	Mr. SAMUEL EDDY, Founder/Curator of SAM Global.
12.	07-03-2014	TECHFLUENCE	National Workshop orgained for Industry people
13.	07-02-2014	BRAINIAC 2014	Mind Blowing Science Quiz – organized for school students
14.	8-01-2014 to 10-01- 2014	National Workshop	National level workshop on Image processing and its Applications Level 2
15.	07/01/2014 to 10/01/2014	Faculty Development Program	Android Application

S.No	Date	Name of the Program	Name of Resource person/Topic
16.	03/05/2013 to 04/05/2013	Faculty Development Program	"Modern Teaching Aids", Coaching And Mentoring -Innovative Methods
17.	9-01-2013 to 11-01- 2013	National Workshop	National level workshop on Image processing using MATLAB Level I
18.	15/12/2012	Faculty Development Program	Cloud & Grid Computing
19.	11-06-12 to 14-06- 2012	Faculty Development Program	Java Programming
20.	30-10-2012 to 31-10- 2012	National Workshop	Two Day National Workshop On Software Testing Tools & Methodologies
21.	28-3-2011 to 29-03- 2011	National Workshop	National Level Workshop On Network Simulator Ns2
22.	8-09-2011 to 9-09- 2011	National Workshop	National Level Workshop On Techniques And Tools In Data Mining
23.	15-09-2011 to 16-09- 2011	National Conference	National Conference On Recent Trends In Data Mining & Distributed Application
24.	5-03-2010 to 6-03-2010	National Conference	National Conference On Recent Trends In Computer Science & Engineering, NCRTCSE-2010
25.	7-08-2009 to 8-08 -2009	National Workshop	Two days National workshop on "How To Do Research"
26.	2-3-2008 to 4- 3-2008	National Workshop	Three days National Workshop on "Computer Graphics & Multimedia"
27.	20-03-2008	National Workshop	One day National Workshop on "Rational Rose"
28.	10-04-2007	Faculty Development Program	FDP on "Rational Rose"

28. **Student projects**

- Percentage of students who have done in-house projects including inter- departmental projects

S.No	Name of Project	Duration
1	IVR response system for Transport services	3 months
2	Student Information System	3 months
3	Staff Information System	3 months
4	Hostel Management system	3 months
5	Realtime Weather Information System	3 months
6	Hydrological information system in realtime	3 months
7	Transport and Fuel Management System	3 months
8	Sathyabama University Information Kiosk	6 months
9	Library Information System	6 Months
10	Automatic time table generation	6 Months
11	Hostel information System	6 Months
12	Single Signon System for the University	6 Months
13	Payroll Software	6 Months
14	HallTicket Generation system	2 Months
15	Auditorium Reservation system	3 months
16	Centralised counseling system	6 months

- Projects Done By CSE Students In Collaboration With Industry:

Sr. No	Organization	Project Title	Mentor Name	Students List
1	CSC	Credit Processing System	Dr. B. Bharathi	1. AMBARISH GOGOI 2. HARPREET SINGH
2	CSC	VisEdge	Dr. V. Ulagamuthalvi	1. NIRMAL CYRIL 2. JONES JANARTH 3. NABEEL 4. N. KARTHIK 5. KISHORE DEBNATH
3	CSC	iSEE - EXEC Dashboard	Dr. G. Meera Gandhi	1. EMMANUEL ARUL ISSAC 2. N. GOWTHAM 3. A. HEMANAND 4. AJAY KUMAR B. R. 5. GANESH S.
4	CSC	Resource Fulfillment System	Dr. S. Murugan	1. ANNAPOORNA 2. APARNA 3. PAPITHA
5	CSC	e-ORGANISER	Dr.R. Aroul Canessane	1. DOMINIC A. 2. LALITH KUMAR K.V.N. 3. ANISH THOMAS 4. GOWTHAM P.
6	CTS	Application Response Monitoring System (ARMS)	Ms. Prince Mary	1. YAMAN AGARWAL 2. SIDDHARTH PAUL 3. ROSHAN SINGH 4. SHUBHENDU SHARMA 5. VIBHAV SINGH
7	CTS	Automating the Mobile Application by an Other Mobile Application	Mr. E.Nagarajan	1. Kumar Akash Deep 2. Vikas Kumar 3. Prakash Kumar Prasad 4. Nikesh D 5. M Shreenidhi Devi

Sr. No	Organization	Project Title	Mentor Name	Students List
8	CTS	Automated Testing Tool for Windows Phone 8 Mobile Native Application	Mr. B. Baron Sam	1. Manish Anand 2. Manikant 3. Mikhil
9	CTS	Location Simulator for Server Side	Dr.T.Prem Jacob	1. C.Daniel Nehemiah Anand 2. Varun Krishna Dey
10	CTS	Unit testing / API Testing the code for IOS, Windows 8	Dr. B.Bharathi	1. Rafey 2. Mikhil
11	CTS	Compliance Testing for Mobile Devices	Dr. A.V.K.Shanthi	1. Apurwa Das 2. Sneka Adikari 3. Pooja Saha 4. Lakshana

- List of students doing projects in collaboration with other institute

S.No	Degree	Branch	Name Of The Student	Project Title	Duration
1	B.E	CSE	Siddarth Chatterje Sankara Narayanan Hariprasad	Sathyabama Nano Satellite with ISRO	JAN 2013 to Till Date
2	B.E	CSE	G.Navaneesh	Linking Open Source Web GIS Services with existing Spatial and Nonspatial data of Sadras- with IGCAR Kalpakkam	4 Months
3	BE	CSE	Ansu Merin Varghese	Cryptographic Mutual Authentication System With Hmac For Networking Application-with IGCAR Kalpakkam	6 Months

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		-	-
Students	(Extra / Cocurricular)	25	-
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S No	Name of the Organization	Dates & Duration	Seminar Title
1	Sathyabama University	Aug 7 th - 8 th 2009	Two Day National Workshop on "How To Do Research"
2	Sathyabama University	Mar 5 th - 6 th 2010	National Conference On Recent Trends In Computer Science & Engineering, NCRTCSE-2010
3	Sathyabama University	Oct 30 th - 31 st 2010	Two Day National Workshop On Software Testing Tools & Methodologies, STTM-2010
4	Sathyabama University	Mar 28 th - 29 th 2011	National Level Workshop On Network Simulator Ns2
5	Sathyabama University	Apr 1 st - 2 nd 2011	Workshop On Software Testing Tools & Qtp
6	Sathyabama University	Sep 8 th - 9 th 2011	National Level Workshop On Techniques And Tools In Data Mining
7	Sathyabama University	Sep 15 th - 16 th 2011	National Conference On Recent Trends In Data Mining & Distributed Application
8	Sathyabama University in association with ICTACT	June 11 th - 14 th 2012	Four day Faculty Development Programme on Java Programming
9	Sathyabama University	Jan 9 th - 11 th 2013	National level workshop on Image processing using MATLAB Level I
10	Sathyabama University	Jan 8 th - 10 th 2014	National level workshop on Image processing and its Applications

S No	Name of the Organization	Dates & Duration	Seminar Title
11	Sathyabama University in association with Lucideus Research Labs	Augt 20 th , 2015 – Aug 21 st , 2015	ATUL JALAN, Lead in the Research and Development Department in Lucideus Research Labs, Indian Institute of Technology Bombay - Secure Android Application Development
12	Sathyabama university	March31st, 2016 – April 05 th , 2016	Mr.Ashok Kumar - CLOUD AND OPEN STACK WORKSHOP

31. **Code of ethics for research followed by the departments** :

- Eligibility :
 - A scholar possessing Masters Degree of this university or any other qualification recognized as equivalent thereto in the fields of study notified from time to time by this university is eligible to register and work for the Ph.D Programme.
- Research Supervisors and number of candidates:
 - An updated and approved panel of recognized research supervisors for the Ph.D programme of the university shall be maintained by the university.
- Doctoral Committee:
 - The Doctoral Committee shall constitute as under:
 - Reserach Supervisor, joint supervisor if any
 - Two or more experts approved by the board of research.
- Course Work & Comprehensive Examination:
- Monitoring the Progress of the scholar.
- Synopsis of thesis.
- Submission of thesis.
- Thesis Evaluation.
- Oral Examination.

32. Student profile programme-wise:

DEMAND RATIO (NO. OF SEATS: NO. OF APPLICATIONS): UG 1:32 PG 1: 32

Name of the Programme	Batch	Application received	Selected	
			Male	Female
BE – CSE	2016-2020	34567	1105	286
	2015-2019	28567	493	162
	2014-2018	24897	346	135
	2013-2017	9792	206	107
	2012-2016	11968	247	117
ME – CSE	2016-2018	167	01	07
	2015-2017	549	07	20
	2014-2016	2542	06	39
ME – CSE (PT)	2016-2019	-	-	-
	2015-2018	984	07	20
	2014-2017	1423	22	22
	2013-2016	1376	13	30
DUAL CSE	2016-2021	142	06	04
	2015-2020	51	00	00
	2014-2019	121	05	00
	2013-2018	148	06	01
	2012-2017	137	04	03
	2011-2016	123	05	01

University results:

BE - CSE	2015-2019	76.00
	2014-2018	63.00
	2013-2017	64.00
	2012-2016	53.32
DUAL CSE	2014-2019	80.25
	2013-2018	50.00
	2012-2017	85.7
	2011-2016	83.3
ME - CSE	2015-2017	92.59
	2014-2016	86.67
ME – CSE (PT)	2015-2018	89.57
	2014-2017	94.58
	2013-2016	86

33. Diversity of students

Name of the Programme	% of students from same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
BE - CSE	-	-	-	-
ME - CSE	5%	68.35%	26.58%	-
ME – CSE (PT)	-	100%	-	-
DUAL CSE	-	-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)
1.	GRE	2006 -2010 - 22 2007-2011 - 35 2008-2012 - 19 2009-2013 - 21 2010-2014 - 26 2011-2015 - 31 2012-2016 - 42
2.	TOFEL	2006 -2010 - 25 2007-2011 - 23 2008-2012 - 11 2009-2013 - 19 2010-2014 - 26 2011-2015 - 33 2012-2016 - 47
3.	GMAT	2006 -2010 - 3 2007-2011 - 7 2008-2012 - 7 2009-2013 - 2 2010-2014 - 5 2011-2015 - 3 2012-2016 - 6

35. **Student progression**

Student progression	Percentage against enrolled
UG to PG	10% (Yearly)
PG to M.Phil.	NA
PG to Ph.D.	5% (Yearly)
Ph.D. to Post-Doctoral	Nil
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	On Campus UG – 72% (Yearly) PG – 50% (Yearly) Off Campus UG – 24% (Yearly) PG – 9% (Yearly)
Entrepreneurs	5% (Yearly)

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	45 %
from other universities within the State	55%
from universities from other States	-
from universities outside the country	-

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

Ph.D awardees – 2

38. **Present details of departmental infrastructural facilities with regard to**a) **Library**

Number of Books In The Departmental Library:

No. of Books	No. of Text Books	Total Cost of all Books
20,533	20,350	Rs. 98,47,107.00

S.No.	Academic Year	Budget Allotted (in Rs)	Budget Utilised (in Rs)	No.of Books Purchased
1	2011-2012	286000	301391	844
2	2012-2013	384500	361167	1571
3	2013-2014	454000	469914	1922
4	2014-2015	630000	639840	3049
5	2015-2016	1200000	1235200	3529
6	2016-2017 up to DEC-2016	1625000	1678378	3555

b) **Internet facilities for staff and students: 64mbps**c) **Total number of class rooms : 44**

d) Class rooms with ICT facility : NIL

e) Students' laboratories : 8

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment (Rs.)
1	Ground Floor Lab [<u>Programming language</u>]	3932 Sq.Feet	33,71,179
2	First Floor Computer Lab [<u>Software development lab</u>]	4032 Sq.Feet	40,46,162
3	CISCO Lab	1000 Sq.Feet	19,17,286
4	Second Floor Computer Lab [<u>Rich Internet Applications (RIA)]</u>	2016 Sq.Feet	23,59,614
5	Second Floor Computer Lab [<u>Mobile Application Development (MAD)]</u>	2016 Sq.Feet	23,59,614
6	Computer peripherals Lab	1500 Sq.Feet	5,89,903
7	Tower Lab	3932 Sq.Feet	41,38,858
8	DST- FIST sponsored Cloud Lab	200 sq.Feet	20,00,000

CLOUD LAB - SERVER

SERVER 1	PRODUCT	DESCRIPTIONS	QTY
	Processor(s)	1 x Intel® Xeon® Processor E5-2650 v3 (25M Cache, 2.30 GHz) 10 Cores	

			02
	RAM	16 GB DDR4-ECC 2133 Mhz (Max 8 DIMM slots)	
	HDDs	2 x 500 GB SATA 7.2K Rpm Hot Plug HDD	
	Raid	On board Raid with Raid 0,1 support	
	ODD	None/Optional extra	
	NIC	2 x Gigabit(10/100/1000Mbps) Ethernet on-board	
	Graphics	Matrox G200eW	
	Management	IPMI 2.0 with virtual media over LAN and KVM-overLAN support	
	Exp. Slot(s)	1 PCI-E 3.0 x8	
	Chassis	1U Rackmount Single Power Supply 350W High-efficiency Power Supply	

			QTY
	PRODUCT	DESCRIPTIONS	

SERVER 2			
	Processor(s)	2x Intel® Xeon® Processor E5-2650 v3 (25M Cache, 2.30 GHz) 10 Cores	02
	RAM	32GB(2x16GB) DDR4-ECC 2133 Mhz (Max 16 DIMM slots)	
	HDDs	2 x 500 GB SATA 7.2K RPM Hot Plug HDD	
	Raid	On board Raid with Raid 0,1,10 support	
	ODD	None/Optional extra	
	NIC	2 x Gigabit(10/100/1000Mbps) Ethernet on-board	
	Graphics	Matrox G200eW	
	Management	IPMI 2.0 with virtual media over LAN and KVM-overLAN support	
	Exp. Slot(s)	1 PCI-E 3.0 x8	
	Chassis	1U Rackmount Single Power Supply 350W Highefficiency Power Supply	

STORAGE

S.NO	PRODUCT	DESCRIPTIONS	QTY
1.	Inova 400	4 Bay NAS Storage	01
2.	3TB SATA	SATA HDD – 7200 RPM	04

NODES

S.NO	CONFIGURATION		QTY
1	LENOVO	PROCESSOR - INTEL CORE i3[3.2GHz] RAM - 2GB DDR3 HDD - 500 GB MONITOR - 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	1

SWITCHES

S.NO	CONFIGURATION		QTY
1.	D-LINK Managed Switch	MODEL TYPE : DGS-1008C PORT : 8-Port Gigabit Ethernet Network Switch	1

CISCO LAB DETAILS

NODES

S.NO	CONFIGURATION		QTY
1	LENOVO	PROCESSOR - INTEL(R) CORE (TM) i3-6100 CPU@3.70GHz RAM - 4GB DDR4 HDD - 500 GB MONITOR - 19.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	48
2.	IMAC	PROCESSOR- INTEL CORE 2 DUO [2.66 GHZ] RAM- 2 GB DDR3 SDRAM HDD- 320 GB MONITOR- IMAC 20' TFT KEYBOARD- IMAC MOUSE- IMAC	1

SWITCHES

S.NO	CONFIGURATION		QTY
1.	D-LINK Smart Pro Switch	MODEL TYPE : DGS-1510-28 PORT: 24 10/100/1000 BASE-T Ports and 4 Gigabit Ports	6

MOBILITY & RIA LAB DETAILS**SERVERS**

S.NO	CONFIGURATION		QTY
1	LENOVO (Server& Telnet Server)	PROCESSOR -INTEL® CORE™ 2 DUO[2.80 GHZ] RAM -2 GB DDR2 HDD -320 GB MONITOR -LENOVO 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	2

NODES

S.NO	CONFIGURATION		QTY
1.	LENOVO	PROCESSOR - INTEL CORE i3[3.2GHz] RAM - 2GB DDR3 HDD - 320 GB MONITOR - 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	126

SWITCHES

S.NO	CONFIGURATION		QTY
1.	D-LINK Managed Switch	MODEL TYPE : DGS-3100-24	7

GROUND FLOOR - FIRST YEAR LAB DETAILS

NODES

S.NO	CONFIGURATION		QTY
1	LENOVO	PROCESSOR - INTEL(R) CORE (TM) i3-6100 CPU@ 3.70GHz RAM - 4GB DDR4 HDD - 500 GB MONITOR - 19.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	99
2.	LENOVO	PROCESSOR - INTEL(R) CORE (TM) Duo CPU E7500@2.93GHz RAM - 2GB DDR2 HDD - 500 GB MONITOR - 17.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	01

SWITCHES

S.NO	CONFIGURATION		QTY
1.	D-LINK Smart Pro Switch	MODEL TYPE : DGS-1510-28 PORT : 24 10/100/1000 BASE-T Ports and 4 Gigabit Ports	4

FIRST FLOOR - MAINLAB DETAILS**SERVERS**

S.NO	CONFIGURATION		QTY
1	IBM(Main Server)	PROCESSOR- INTEL® XEON 9(R) [2.33 HZ] RAM- 4 GB HDD- 160 GB MONITOR- LENOVO 17' KEYBOARD- IBM MOUSE- IBM	1
2	LENOVO (Additional Server & Telnet Server)	PROCESSOR- INTEL® CORE™ 2 DUO[2.80 GHZ] RAM- 1 GB DDR2 HDD- 250 GB MONITOR- LENOVO 17' TFT KEYBOARD- LENOVO MOUSE- LENOVO	2
3.	Jeppiaar Systems (File Server)	PROCESSOR- INTEL® CORE™ 2 [1.80 GHZ] RAM- 1 GB DDR1 HDD- 80 GB & 250 GB MONITOR- LG 17' KEYBOARD- MICROSOFT MOUSE- MICROSOFT	1

NODES

S.NO	CONFIGURATION		QTY
1.	LENOVO	PROCESSOR - INTEL CORE i3[3.2GHz] RAM - 2GB DDR3 HDD - 500 GB MONITOR - 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	98
2.	LENOVO	PROCESSOR - INTEL® CORE 2 DUO[2.93GHz] RAM - 2GB DDR3 HDD - 250 GB MONITOR - 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	2

SWITCHES

S.NO	CONFIGURATION	QTY	
1.	D-LINK Smart Pro Switch	MODEL TYPE : DGS-1500-28 PORT : 24 10/100/1000 BASE-T Ports and 4 Gigabit Ports	6
2.	D-LINK Managed Switch	MODEL TYPE : DGS-3100-24TG PORT : 8 10/100/1000 BASE-TX Ports and 16 SFP Ports	1
3.	NET GEAR PRO SAFE	MODEL TYPE : FS108P PORT : 8-Port Fast Ethernet PoE Switch	1

Computer Peripherals Lab

CONFIGURATION (Client)		QTY
LENOVO [IBM]	PROCESSOR - INTEL CORE i3 -2100M RAM - 2GB DDR3 HDD - 320 GB MONITOR - 18.5' TFT KEYBOARD - LENOVO MOUSE - LENOVO	30

f) **Research laboratories - DST FIST sponsored Cloud Computing Lab**

39. **List of doctoral, post-doctoral students and Research Associates**

a) from the host institution/university : 22 (4 years)

b) from other institutions/universities : 94 (4 years)

40. **Number of post graduate students getting financial assistance from the university:** NIL

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Yes. The department assess the requirement of new programme(s) / course (s).

The inputs from the staff, feedback from the industry experts the proposal for new programs and courses are designed. The feedback from alumni's and students are considered while framing the course contents and in the syllabus revision. Board of Studies meeting conducted on regular basis. Parents feedback were also obtained while framing the syllabus revision.

Review from Industries are taken and feedback are incorporated in the review of syllabus

42. **Does the department obtain feedback from**

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes. Based on the feedback given by the staff, curriculum revision has been done.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes. Staffs are appreciated for positive feedback. In case of negative feedback, staffs are requested to identify the areas of weakness and encourages them to improve.

c. alumni and employers on the programmes offered and how does the department utilize the feedback? Yes.

- Based the feedback on curriculum given by industry experts, in association with them syllabus revision have been done.
- Alumni's interacts with the present students.
- The feedback from the employers and the alumni are used for syllabus updations.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name of Student	Organisation	Batch
1	Dr.Shakthivel	Associate Professor, Anna University	1988-1992
2	Mr.Balraj Kunnath	Senior Director, Microsoft	1991-1995
3	Mr.Mahesh Ramachandran	IT analyst, TCS, California	1994-1998
4	Mr.Sebastin Rajamanickam	Architect, Verizon Technologies, Chennai	1997-2001
5	Mr.Sathyanarayana Pathangi	Business Analyst, CTS, Chennai	1998-2002
6	Mr.Aravindhan	Software Engineer, Infosys, Chennai	2001-2005
7	Mr.Vanchinathan	Software Engineer, L&T, Chennai	2006-2010
8	Mr.Prabodh Varun	Soft ware Engineer,Infosys Technologies	2006-2010

S.No	Name of Student	Organisation	Batch
9	Mr.Koganti Aditya	Senior Software Test Engineer,CTS	2007-2011
10	Ms.C.L.Gayathri	Software Engineer ,Virtusa Pvt. Ltd	2008-2012
11	Mr.Prasanth Kumar Pandey	CEO-365 days Event Management	2012-2016

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	19
Workshops	8
Seminars	49

45. List the teaching methods adopted by the faculty for different programmes.

1. Projector
2. Group Discussion
3. Textbook Assignments
4. Industrial Visit
5. Guest Lectures
6. Seminars
7. Interactive workshop sessions

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Assessing student performance through internal assessment examinations.
- Campus recruitment programs
- Percentage of students pursuing Higher Studies
- Feedback from Employers about our alumni

47. Highlight the participation of students and faculty in extension activities.

- Sports
- Cultural activities
- NSS
- University Band
- Blood Donation Camps
- Google Club
- Microsoft Club
- Computer Society of India
- IEEE-Computer Science
- Mozilla Club
- Computer Science Club

48. **Give details of “beyond syllabus scholarly activities” of the department.**

Workshops and FDP are conducted for students and staff.

Students and staff have been participated in various conferences and symposiums conducted by other universities and colleges at both National and International Level.

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

The department is accredited by NAAC with B++ grade. ISO qualified with DNV ISO 9001-2008. Declared as category A university by task force appointed by MHRD, Govt. of India.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Knowledge transformation about latest technologies (like Cloud Computing, Big Data, Mobile Application development etc) to University Staff and Students.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strength:

- Completed three funded projects, two ongoing projects and one is in the review process.
- Publications in Indexed Journals (Scopus and Web of Science)
- Well established laboratory and department library.
- Dedicated staff members.

Weakness:

- Percentage of students to opt for Higher studies.

Opportunities:

- More funded projects can be raised with new emerging technologies.
- Funds can be raised by conducting certificate courses.

Challenges:

- Students should be enlightened enough to get more placed in contentment organizations.
- To meet the industry expectations and standards.

52. **Future plans of the department.**

- To start new courses – ME Software Engineering, ME Communication and Networks
- To introduce new certification courses – PMI Courses, Placement Certification
- To aim for more patents from the department
- To induct placement training program from first year onwards.
- To carry out research oriented projects, leads to publications, patent and product through established research labs.

Department of Information Technology

1. **Name of the Department** : Department of Information Technology
2. **Year of establishment** : 1999
3. **Is the Department part of a School/Faculty of the university?**
Yes; School of the University – School of Computing
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.)**
UG: B.Tech Information Technology (4 Years)
PG: M.Tech Information Technology (2 Years)
PG: M.Tech Information Technology (Part Time – 3 Years)
Ph.D Programme (Full Time / Part Time)
M.Tech by Research Programme
5. **Inter Disciplinary programmes and departments involved:**
Nil.
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**
Mobile Application Development and Rich Internet Application are offered as elective subjects for final year students. This course has been designed and conducted in collaboration with VIRTUSA Pvt. Ltd., A course on Big Data as designed by Infosys, is offered as elective subject for final year students.
7. **Details of programmes discontinued, if any, with reasons:**

Nil.

8. Examination systems; Annual/ Semester/ Trimester/Choice based credit system:

Semester & Absolute Credit Based System.

9. Participation of the department in the courses offered by other departments:

Department offers following Courses

Name of the Subject	Name of the Departments
C Programming	Civil, Bio Groups, Mech & Pro, E&C, ECE, Aero
C++ Programming	Bio Groups, Mech & Pro, ECE, E&C
Data Structures & Algorithms	ECE
Data Base Management Systems	ECE
Computer Programming	BDS

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	3	3
Associate professors	6	6
Assistant Professors	19	19
Technical	04	04

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sl. No.	Name	Designation	Qualification	Specialization	No of Years of Experience	No of Ph.D/ M.Tech by Research students guiding for the last 4 years
1.	Dr.. G. Mathivanan	Professor	B.Sc., B.Tech., M.E. (CSE)., (Ph.D)	Computational Intelligence	21 Yrs	Nil
2.	Dr. S.Justin Samuel	Professor	B.Sc, MCA.,M.Tech (IT)., Ph.D	Web Services	16 Yrs	5
3.	Ms. V. Vijeya Kaveri	Associate Professor	B.E.,(CSE)., M.Tech.(IT)., (PhD)	Data Mining	16 Yrs	Nil
4.	Mr. S. Igni Sabasti Prabu	Associate Professor	B.E(CSE)., M.E(CSE)., (PhD)	Web Service, Software Testing	16 Yrs	Nil
5.	Dr. R. Jeberson Retna Raj	Associate Professor	MCA., M.Tech., Ph.D	Web Services	12 Yrs	2
6.	Dr. P.Jeyanthi	Professor	B.E.(CSE)., M.E.(CSE)., (Ph.D)	Image Mining	15 Yrs	Nil
7.	Ms. S. Gowri	Assistant Professor	B.E(CSE)., M.E(CSE)., (PhD)	Data Mining,Software testing	12 Yrs	Nil
8.	Ms. P. Ajitha	Associate Professor	B.E.(EIE)., M.E.(CSE)., (PhD)	Text mining	14 Yrs	Nil
9.	Dr. S. Revathy	Associate Professor	B.E.,(CSE) M.E.(CSE)., (PhD)	Clustering in Data Mining	12 Yrs	2
10.	Ms. V. Maria Anu	Assistant Professor	B.Tech, M.E., (PhD)	Data Warehousing Data Mining	11 Yrs	Nil
11.	Ms. S. Kalpana	Assistant Professor	B.E.(CSE)., M.Tech.(IT)., (Ph.D)	Mobile Security	8 Yrs	Nil
12.	Ms. V. Rajalakshmi	Assistant Professor	B.E.(CSE)., M.E.(CSE)., (PhD)	Data Mining, Security, Data Structures	8 Yrs	Nil
13.	Ms. Y. Bevish Jinila	Assistant Professor	B.E., M.E., (PhD)	Network Security	11 Yrs	Nil

Sl. No.	Name	Designation	Qualification	Specialization	No of Years of Experience	No of Ph.D/ M.Tech by Research students guiding for the last 4 years
14.	Ms. R. Sathiyavathi	Assistant Professor	B.Tech (IT)., M. Tech (IT).,	Networking, Network Security	10 Yrs	Nil
15.	Ms. J. S. Vimali	Assistant Professor	B.Tech (IT)., M.Tech (IT)., (PhD)	Network Security, Web Security	10 Yrs	Nil
16.	Mr. Senduru Srinivasulu	Assistant Professor	B.Sc, MCA., M.Tech (IT)., (PhD)	Data Mining	10 Yrs	Nil
17.	Dr. R. Rathna	Assistant Professor	B.Tech (IT)., M.Tech (IT)., (PhD).,	Wireless sensor Networks	9 Yrs	Nil
18.	Ms. Priya	Assistant Professor	M. Sc., M. E. (CSE).,(Ph.D).,	Network Security	8 Yrs	Nil
19.	Ms. V. Adilakshmi	Assistant Professor	B.Tech, M.E. (CSE).,(Ph.D).,	Data Structure and Algorithm	1 Yr	Nil
20.	Ms. Jordan Jency	Assistant Professor	M. Sc., M. Tech (IT).,	Database System	7 Yrs	Nil
21.	Ms. Brumancia	Assistant Professor	B. E., M. E. (CSE).,(Ph.D).,	Mobile Applications	7 Yrs	Nil
22.	Ms. Karunya	Assistant Professor	B. Tech., M. Tech (IT).,	Networks	7 Yrs	Nil
23.	Ms. D. Kaavya	Assistant Professor	B.Tech., M.Tech.,	Networking	4 Yrs	Nil
24.	Ms.Hemamalini	Assistant Professor	B.E.,M.E.,(Ph.D).,	Video Servellience	4 Yrs	Nil
25.	Ms.V.Nirmalani	Associate Professor	M.Tech., (Ph.D).,	DataMining	14Yrs	Nil
26.	Ms.Gomathi	Assistant Professor	B.E., M.Tech.,(Ph.D).,	WSN	9yrs	nil
27.	Mr.Jabez	Assistant Professor	M.Tech., (Ph.D).,	DataMining	10yrs	nil
28.	MisticaDas	Assistant Professor	M.Tech., (Ph.D).,	BigData	5yrs	nil

12. List of senior visiting fellows, adjunct faculty, emeritus professors:

Dr. Srivatsa – Retd.Professor, MIT Chennai

Dr. N. P. Gopalan – Professor, NIT Trichy

Dr. V. Ramachandran – Director, NIT Nagaland

Dr. T. G. Sambandam, Professor, NITTTTR Chennai

Mr. Iniya Nehru, Technical Director, NIC, Chennai

Mr. Chokalingam – Software Engineer, CISCO, Bangalore

Mr. P. Sudharshan – Project Manager, Infosys Technologies Ltd., Chennai

Dr.V.Vaidehi-VIT,Chennai Campus.

Dr.P.ShanthiThilagam- Associate Professor , NITK, Surathkal

Dr.Annappa ,Associate Professor, NIT,Mangalore.

Dr.Hanumanthappa ,professor and chairman, Bangalore university.

Dr.S.Jyothi Professor in Computer Science ,Sri Padmavati Women's Univeisity.

Ahmad Kamil Mahmood-Dean of Faculty of Science and Information Technology, Universiti Tecknologi Petronas, Malaysia.

Dr.David Yau-Professor, Singapore University of Technology and Design

13. Percentage of classes taken by temporary faculty-programme-wise information:

Nil

14. Programme-wise Student Teacher ratio:

By taking into account the subject handled by faculty members of other departments into consideration the staff student ratio of the Deaprtment is 1:15.

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:

04-04-04.

16. Research thrust areas as recognized by major funding agencies:

- Location Based Services
- Data Mining
- Web Services
- Cloud Computing
- Wireless Sensor Network
- GIS
- BIG Data
- Assistive Technology

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr. T. Sasipraba	Location Based Services for Emergency Management	DST/ NRDMS	2006	Rs. 27.67	2 Yrs
2.	Dr. T. Sasipraba	GIS based Web Services for Emergency Management System	DST/ NRDMS	2008	Rs. 22.90	2 Yrs
3.	Mrs. Rathna	Detection of Harmful Radiation in the Environment by Deploying Wireless Sensor Networks	DST/ NRDMS	2013	Rs. 15.00	3 Yrs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
4.	Dr. R. Jeberson Retna Raj	Location Based Services for Everyday Essentials	DST/ NRDMS	2013	Rs. 20.00	2 Yrs
5.	Dr. R. Subhashini	Cloud Computing Lab	DST	2014	Rs. 22.00	NA
Total					Rs.107.56	

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration-**Nil**

b) International collaboration-**Nil**

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.T.SasiPraba	Data Monitoring using WAP	AICTE	2000	Rs.2 Lakhs	2 Yrs
2	Dr.T.SasiPraba	Hyper Lecture Hall	AICTE	2001	Rs.2 Lakhs	2 Yrs
Total					Rs.4 Lakhs	

20. Research facility / centre with

- State Recognition - **NIL**
- National Recognition -
 1. **Center for Remote Sensing & Geoinformatics**
 2. **Center for NanoScience & NanoTechnology**
 3. **Center for Space Technology**
- International Recognition
 1. **CISCO Networking Academy**
 2. **Virtusa Pvt. Ltd.,**

21. Special research laboratories sponsored by / created by industry or corporate bodies:

S.No	* Name of the Equipment	Agency Sponsored / Industry
1	Rich Internet Applications Lab	Virtusa
2	Mobile application Lab	Virtusa
3	Cloud Computing Lab	DST

22. Publications:

- Number of papers published in peer reviewed journals (national / international)
 - National Journals / International Journals : 544

- Monographs - NIL
- Chapters in Books - 3
- Edited Books - 1
- Books with ISBN with details of publishers - Nil
- Number listed in International Database
 - Scopus : 251
 - Web of Science : 16
- Citation Index : 1 – 24
- Avg : 4.69
- SNIP : 0.12 – 1.289
- SJR : 0.11 – 0.718
- Impact Factor – Range : 0.053 – 5.215
- Average : 0.384
- h-index : 3

23. Details of patents and income generated:

S.No	Name of the Faculty	Title of the Patent	Application No	Patent No	Year	Date of Grant
1	Dr.R.Subashini	Face Recognition and remote alert System		-	-	-

b. Income generated: Nil

24. Areas of consultancy and income generated (student projects)

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned	Duration
1	WIPRO	Training for selected candidates	Rs. 46,500	6 Months
2	CTS	Project Development		6 Months
3	CTS	Glossary Builder App		6 Months
4	Pearson English	Manuel Testing for Teachers Community Portal		6 Months
5	National Insitute of EPIDEMIOLOGY	Library Web Portal		6 Months
6	Indian Meteorological Department	Forecating the date of Onset of South- West Monsoon over Kerala		6 Months

25. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad

Dr. T. Sasipraba along with Dr. R Jeberson Retna Raj and Mrs. Rathna had visited the following government agencies:

IGCAR, Kalpakkam
 CVRDE, Avadi
 CAIR, Bangalore
 VSCC, Trivandram
 LPSC, Trivandram
 NPOL, Cochin
 NIOT, Chennai
 Regional Meterological Tower, Chennai
 BHAVINI, Kalpakkam

Dr. S. Murugan invited as Guest Lecturer at National Institute of Technology, Nagaland.

Mrs. V. Vijeya Kaveri invited talk at Wipro Technologies, Chennai.

26. Faculty serving in

- a) National committees - **NIL**
 b) International committees - **NIL**
 c) Editorial Boards - Dr.T.Sasipraba
Dr.P.Jeyanthi
d)Reviewers - **Dr.G.Mathivanan**
Dr.S.Justin
Dr.S.Revathy
 d) any other (please specify) - **NIL**

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

The faculty continuously attend workshops organized by various Central and State Government University / Technical Institutes. Each and every faculty on an average a minimum of 2 workshops / fdp / orientation programs in a year.

28. Student projects:**U. G Project Details**

Year/Batch	Total No. of Batches	Projects Done in collaboration with Industry	Inter Departmental Projects
2012-2016	109	-	
2011-2015	114 Batches	1 Batch	
2010-2014	79 Batches	1 Batch	
2009-2013	53 Batches		
2008-2012	87 Batches		
2007-2011	78 Batches	2 Batches	

2006-2010	112 Batches		
2005-2009	122 Batches		
2004-2008	116 Batches		
2003-2007	126 Batches	5 Batches	

29. Awards / recognitions received at the national and international level by

- Faculty : **Dr. T. Sasipraba - Best Faculty Award by CTS**

		National Level	International Level
Staff		1	-
Students	(Extra / Cocurricular)	12	3
	Sports		

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	Outstanding participants *
1.	10 days Training programme on Big data Analytics	27 th April to 7 th May 2015	DST	Students and Staffs from various universities, Scientists, Research Scholars.
2.	National Network Security Championship (NNSC)	13 th & 14 th November 2013	ACM & IIT, Delhi	

S. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	Outstanding participants *
3.	Performance Methodologies and Tools for Wireless Sensor Networks WSNPerf 2013	21 st & 22 nd November 2013		Ms.Vaidagi,MIT -Chennai
4.	CCNA Winter Training Program 2013 – 2014	12 th to 18 th December 2013		
5.	International Conference on Trends in Information Sciences & Computing (TISC2007)	12/12/2007 to 14/12/2007	Tata Consultancy Services, Chennai	
6.	International Conference on Trends in Information Sciences & Computing (TISC 2010)	17/12/2010 to 19/12/2010	Cognizant Technologies, Chennai	
7.	International Conference on Trends in Information Sciences & Computing (TISC 2010)	08/12/2011 & 09/12/2011	NASSCOM	
8.	National Conference on Emerging Trends in Information and Communication Technologies (NCETICT – 2012)	30/3/2012		Wing Commander. Dr. M. Murugesan, Director, CSI
9.	2nd National Conference on Emerging Trends in Information and Communication Technologies (NCETICT – 2013)	14/03/2013 & 15/03/2013		Dr. Ramachandran Ramasheshan, Senior Technical Director, Cognizant Technology Solutions. Dr. Kamala Krithivasan, IIT-Madras. Dr. T.Mala, Anna University. Dr.V.Jawahar Senthil Kumar, Anna University

31. Code of ethics for research followed by the departments:

- a. Research Results, analysis and interpretations should be reviewed by the scholars to ensure accuracy and correctness.
- b. Prior permission should be obtained from the respective organization/individual while collecting personal / confidential information.
- c. Strictly no plagiarism
- d. Department of Information Technology adopts the standard code of ethics as prescribed by the Board of Research.

32. Student profile programme-wise:

- a. Selected

Name of the Programme / Year	B.Tech IT			M.Tech IT			M.Tech IT (PT)		
	Applns. Rcvd	Selected		Applns. Rcvd	Selected		Applns. Rcvd	Selected	
		M	F		M	F		M	F
IV Year/2013	4557	78	64						
III Year/2014	6721	113	94						
II Year/2015		98	67						
I Year/2016		144	62						

b . University Results (as on June 2016)

Name of the Programme / Year	B. Tech IT	M.Tech IT	M.Tech IT (PT)
IV Year	58.47		
III Year	50.72		
II Year	52.38		
I Year	Joined in July 2016		

33. Diversity of students:

Name of the Programme	% of students from same university	% of students from other universities within the State	% of students from Universities outside the State	% of students from other countries
M.Tech-IT	-	-	-	-
M.Tech-IT (PT)	-	-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)
4.	GRE/TOFEL	2007 -5 2008 -4 2009 -2 2010 -1 2011 -3 2012 -3 2013 -Nil 2014 -8 2015-1 2016-2

S.No.	Name of the examination	No of students cleared (year wise)
5.	IELTS	2007 -2 2008 -3 2009 -1 2010 -Nil 2011 -1 2012 -3 2013 -Nil 2014 -4 2015- Nil 2016- 11
6.	GATE	2007 -2 2008 -1 2009 -Nil 2010 -Nil 2011 -1 2012 -1 2013 - 0 2014 - Nil 2015- Nil 2016- Nil

35. Student progression

Student progression	Percentage against enrolled
UG to PG	5% (Yearly)
PG to M.Phil.	NA
PG to Ph.D.	1% (Yearly)
Ph.D. to Post-Doctoral	Nil
Employed	On Campus UG – 75% (Yearly) PG – 65% (Yearly) Off Campus UG – 14% (Yearly) PG – 9% (Yearly)
Entrepreneurs	5% (Yearly)

36. Diversity of staff:

Percentage of faculty who are graduates	
of the same university	89.89%
from other universities within the State	11.11%
from universities from other States	Nil
from universities outside the country	Nil

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc., and D.Litt., during the assessment period

7 (PhD)

38. Present details of departmental infrastructural facilities with regard to

a) Library

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
14,223	-	4846369

b) Internet facilities for staff and students - 64 mbps

c) Total number of class rooms - 12

d) Class rooms with ICT facility - 1

e) Students' laboratories - 1

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	IT Lab	12,420	Rs.4,91,200

f) Research laboratories - Nil

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university : 10 (4 years)

b) from other institutions/universities : 30 (4 years)

40. Number of post graduate students getting financial assistance from the university.

NIL

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Yes. The department assess the requirement of new programme(s) / course (s).

The inputs from the staff, feedback from the industry experts the proposal for new programs and courses are designed. The feedback from alumni's and students are considered while framing the course contents and in the syllabus revision. Board of Studies meeting conducted on regular basis. Parents feedback were also obtained while framing the syllabus revision.

42. Does the department obtain feedback form

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes. Based on the feedback given by the staff, curriculum revision has been done.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes. Staffs are appreciated for positive feedback. If a negative feedback about a staff is received, he/she is requested to identify the areas of weakness and are asked to rectify at the earliest. The department encourages them to improve.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

An interaction session between the Alumni and the present sstudents is scheduled for the benefit of the students.

Yes. Based on the feedback, curriculum given by industry experts, in association with them new Technologies has been included in the syllabus revision.

Alumni's interacts with the present students.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Students Batch	Position
1.	Harish . R	2001-2005	Project Manager - Infosys
2.	Shyamala .S	2001-2005	Technical Lead - Mind Tree
3.	Gautamnath	2002-2006	Project Lead - CTS
4.	Ashish Kumar Gupta	2002-2006	Associate Programmer -Infosys
5.	Avanish Kumar	2003-2007	Associate Program Manager - iNautix Technologies India pvt Ltd
6.	Abhinav Kumar	2003-2007	Senior Associate - Cognizant Technology Solutions
7.	Abhinov Rai	2003-2007	Senior Software Engineer - HCL Technologies Ltd
8.	Sofia Parveen	2001-2005	Process Developer - Wipro Technologies
9.	Jayaprakash .J	2001-2005	IT Analyst - TCS
10.	Manoj Singaravelu	2005-2009	Project Engineer - Wipro Technologies
11.	Sai Kiran	2006-2010	Team Leader Tech Mahendra
12.	Joy Viveka	2007-2011	Junio Business Analyst/CTS
13.	Mithun	2007-2011	Entrepreneur

S.No	Name	Students Batch	Position
14.	Vijayan Bharathi	2008-2012	Team Leader/CTS
15.	Sandeep Raghuvanshi	2009-2013	Team Leader/CTS
16.	Nishandhi.N	2010-2014	Developer/IGATE

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	27
Workshops	20
Seminars	14

45. List the teaching methods adopted by the faculty for different programmes.

Different teaching methods adopted by the faculty for different subjects. Projectors are used to help students visualize various architecture diagrams and for effective and flawless presentation. Group Discussions are often conducted to open a platform for students to share their knowledge and understanding about a particular subject. Textbook Assignments are given to help students to read books written by various authors. Industrial Visit are arranged for the students to go out and see practical implementation of what they learn. Guest Lectures are arranged for students. Besides gaining knowledge, this becomes a platform where the student gets to interact with experts. Seminars are also conducted for students by SME (Subject Matter Experts)

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Student performance are assessed through internal assessment examinations.

Campus recruitment programs

Percentage of students pursuing Higher Studies

47. Highlight the participation of students and faculty in extension activities.

The staffs and students are actively involved in various sports. Many staffs and students participate in cultural activities. Students come out for Blood Donation in huge numbers. Staffs and students go for NSS campus and do involve themselves with social activities. Some are also a part of the University Band.

48. Give details of “beyond syllabus scholarly activities” of the department.

Workshops and FDP are conducted for students and staff.

Students and staff have been participated in various conferences and symposiums conducted by other universities and colleges at both National and International Level.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Sathyabama University has been declared as Category “A” University by Ministry of Human Resource Development (MHRD), Government of India

Accredited NAAC B++ Grade

Certified with DNV ISO 9001:2008.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The department has taken steps to impart Knowledge about latest technologies (like Cloud Computing, Mobile Application development etc) to University Staff and Students.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

1. Completed three funded projects, three ongoing projects and one is in the review process.
2. Publications in Indexed Journals (Scopus and Web of Science)
3. Well established laboratory and department library.
4. Dedicated staff members.

Weakness:

1. Percentage of students to opt for Higher studies.
2. Staff involvement in research activities.

Opportunities:

1. More funded projects can be raised with new emerging technologies.
2. Funds can be raised by conducting certificate courses.
3. Introduce new certification courses as part of co-curricular activities.

Challenges:

1. Students should be enlightened enough to get more placement.
2. To meet the industry expectations and standards.

52. Future plans of the department.

Planning to introduce new courses. Aiming to achieve 100% placement opportunity by training students from first year onwards by introducing new certification courses. Design to set up cloud computing laboratory is into consideration. **Planning to use CloudLab to build our own clouds, experimenting with new architectures that will form the basis for the next generation of computing platforms.**

2. SCHOOL OF ELECTRICAL & ELECTRONICS ENGINEERING

1. **Name of the Department** : Department of Electrical and Electronics Engineering
2. **Year of establishment** : 1992
3. **Is the Department part of a School/Faculty of the university?**
Yes, School of the University – School of Electrical and Electronics.
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**

UG Course

Bachelor of Engineering in Electrical and Electronics Engineering

Bachelor of Engineering in Electrical and Electronics Engineering – Part Time

PG Course

Master of Engineering in Power Electronics and Industrial Drives

Master of Engineering in Power Systems Engineering

Master of Engineering in Wind Energy Technology

Master of Engineering in Power Electronics and Industrial Drives – Part Time

Ph. D. Programme

Doctor of Philosophy

Masters of Technology (By Research)

5. **Interdisciplinary programmes and departments involved** : NIL

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : NIL

Entrepreneurship Skill Development Program on “House Wiring” course for unemployment peoples were conducted in collaboration with Ministry of Small and Micro Enterprise (MSME) Development Institute, Govt. of India

7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester system - Absolute credit based system

9. **Participation of the department in the courses offered by other departments**

Name of the subject	Serviced offered to the departments
Basic Electrical Engineering	Departments in the Faculty of Mechanical, Faculty of Electrical and Electronics
Electrical Engineering	Department of Computer Science and Engineering Department of Information Technology
Electrical Technology	Departments in the Faculty of Mechanical, Faculty of Electrical and Electronics
Control Systems	Department of Electronics and Communication Engineering Department of Electronics and Telecommunication Engineering Department of Bio Technology
Circuit Theory	Department of Electronics and Communication Engineering Department of Electronics and Telecommunication Engineering

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	5	5
Associate professors	5	5
Assistant Professors	30	30
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
					Teaching	Industry	Total	
1.	Dr.V.Sivachidambaranadhan	M.E., Ph.D	Professor & Head	Power Electronics	11 Yrs	11 Yrs lab technician	16 Yrs 6 months	7
2.	Mrs.G.R.P Lakshmi	M.E(Ph.D)	Associate Professor	Power Electronics	22 Yrs	1 Year	22 Yrs 06 months	-
3.	Dr. E.Annie Elisabeth Jebaseeli	M.E .Ph.D	Professor	Power Electronics	17 Yrs 06 Months	--	17 Yrs 06 Months	-

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
					Teaching	Industry	Total	
4.	Dr. D.Susitra	M.E, Ph.D	Professor	Power Electronics	17Yrs 06 Months	1	18 Yrs 06 Months	-
5.	Dr.G.T.Sundar Rajan	M.E., Ph.D.	Associate Professor	Power Electronics	13 yrs	1 Year	14 Yrs	5
6.	Dr.D.Godwin Immanuel	M.E, Ph.D	Associate Professor	Power Systems	12 Yrs	--	12 Yrs	3
7.	Dr.S.D.Sundarsingh Jebaseelan	M.E., Ph.D.	Asst. Professor	Power Systems	11 years 3 Months	-	11 years 3 Months	2
8.	Dr.R. Vanitha	M.E,Ph.D	Professor	Power Systems	13 Yrs	2 Year	15 Yrs	-
9.	Mrs.M.Kavitha	M.E(Ph.D)	Associate Professor	Power Systems	14 Yrs & 2 Months	--	14 Yrs & 2 Months	-
10.	Dr.G. Nagarajan	M.E ,Ph.D	Associate Professor	Applied Electronics	12 Yrs	--	12 Yrs	4
11.	Mrs.J.Sangeetha	M.E(Ph.D)	Asst. Professor	Power Electronics	11 Yrs & 09 months	--	11 Yrs & 9 months	-

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
					Teaching	Industry	Total	
12.	Mrs. J.Femila Roseline	M.E (Ph.D)	Asst. Professor	Power Electronics	12 Yrs	--	12 Yrs	-
13.	Ms.D.Ramya	M.E(Ph.D)	Asst. Professor	Power Electronics	12 yrs	--	12 yrs	-
14.	Mr. D.N.S Ravi kumar	M.E(Ph.D)	Asst. Professor	Applied Electronics	10 Yrs	1 Year	11 Yrs	-
15.	Mrs.Radhika	M.Tech (Ph.D)	Asst. Professor	Power Electronics	10 Yrs & 6 Months	--	10 Yrs & 6 Months	-
16.	Mrs.Abitha Memala	M.E (Ph.D)	Asst. Professor	Power Electronics	11 Yrs	--	11 Yrs	-
17.	Mr. V. Senthilnayagam	M.E(Ph.D)	Asst. Professor	Power Electronics	4 Yrs & 11 months	--	4 Yrs & 11 months	-
18.	Mrs.J.Agila Devi	M.E	Asst. Professor	Power Electronics	08 yrs	--	8Yrs	
19.	Mrs.A.Santhi Mary	M.E (Ph. D)	Asst. Professor	Power Electronics	09 yrs & 03 months	--	9 Yrs & 3 months	

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
					Teaching	Industry	Total	
20.	Mrs.M.L.Bharathi	M.E (Ph. D)	Asst. Professor	Power Electronics	9 Yrs & 6 months	--	9 Yrs & 6 months	-
21.	Mrs.J.Komathi	M.E (Ph. D)	Asst. Professor	Power Electronics	08 yrs	--	8 Yrs	-
22.	Mrs. V. Elanangai	M.E (Ph. D)	Asst. Professor	VLSI	7 Yrs & 6 Months	--	7 Yrs & 6 Months	-
23.	Mr.Barnabas Paul Glady	M.E(Ph.D)	Asst. Professor	Power Electronics	8 Yrs	1 Year	9 Yrs	-
24.	Mrs.M.S.Sangeetha	M.E(Ph.D)	Asst. Professor	Power Electronics	7 Yrs & 6 Months	--	7 Yrs & 6 Months	-
25.	Mr.B.Padmanabhan	M.E(Ph.D)	Asst. Professor	Power Systems	4 Yrs & 2 months	-	4 Yr & 2 months	-
26.	Ms.S.M.Shyni	M.E(Ph.D)	Asst. Professor	Power Electronics	05 yrs 9 months	-	5 Yrs & 9 months	-
27.	Mrs. P. Abirami	M.E(Ph.D)	Asst. Professor	Power Electronics	3 Yrs	4 years	7 Yrs	-
28.	Mrs. M. Pushpavalli	M.E(Ph.D)	Asst. Professor	Power Electronics	10 yrs	--	10 Yrs	-

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
					Teaching	Industry	Total	
29.	Mrs.K.S.Latha	M.E	Asst. Professor	Power Electronics	5 years	--	5 years	-
30.	Mrs. Sivagami	M.E(Ph.D)	Asst. Professor	Power Electronics	06 Yrs 07 months	5 Years	11 Yrs & 7 months	-
31.	Ms. Merin Lizbeth George	M.E	Asst. Professor	Power Electronics	3 Yrs	-	3 Yrs	-
32.	Mr. Raghavan	M.E(Ph.D)	Asst. Professor	Power Electronics	3 Yrs 11 months	-	3 Yrs & 11months	-
33.	Mr. R.S. Sivakumar	M.E	Asst. Professor	Power Systems	3 Yrs & 02 months	-	3 Yrs & 02 months	-
34.	Mrs. V. Meenakshi	M.E(Ph.D)	Asst. Professor	Power Electronics	8 Yr 08 months	1 Year	9 Yrs & 8 months	-
35.	Mr. Murugan	M.E(Ph.D)	Asst. Professor	Power Systems	05 yrs 10 months	-	5 Yrs & 10 months	-
36.	Mrs. C.Bhuvaneshwari	M.E (Ph.D)	Asst. Professor	Power Electronics	5 Years 6 Months		5 Years 6 Months	
37.	Dr.K.Vasanth	M.E. Ph.D	Asst. Professor	Applied Electronics	11 Years		11 Years	8
38.	Dr. R.Hari Krishnan	M.E., Ph.D	Professor	Embedded Systems	13 Years 7 Months	2 Years 6 Months	16 Years	-

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/ M. tech (by research) students guiding for the last 4 years
39.	Mr.Y.Chiranjeevi	M.E (Ph.D)	Asst. Professor	Power Electronics	9 Years 10 Months	-	9 Years 10 Months	-
40.	Mr. A. Ramesh Babu	M.E (Ph.D)	Asst. Professor	Power Electronics	8 Years	3 Years	11 years	-

12. List of senior visiting fellows, adjunct faculty, emeritus professors

Dr. M. Abdullah Khan, Professor of Eminence, B.S.A.R. University, Chennai

Dr.B.Umamaheswari, Professor, Dept of Electrical and Electronics, Anna Universtiy, Chennai

Dr. G.T. Manoharan, Retd. IIT Professor

Dr.Karunakaran, Director, SAMEER, Chennai.

Dr.G.Giridhar, Scientist, C-WET, Chennai

Dr. Paramasivan, R&D Head, ESAB, Chennai

Dr. P.Swaminathan, Director, Electronic & Instrumentation Group, IGCAR, Govt. of India, Kalpakkam

Dr. S.R. Krishnamurthy, Ph.D, former Member Generation TNEB Chennai

Mr.K.Iyyapan, Senior Technical Officer, Department of Chemical Engineering,CLRI,Chennai

Mr.Jeswin, Project Team Leader, Ness Solutions Pvt Ltd, Bangalore

Mr.Sudarshan & Sr.Engineer, Emmeskay Systems Pvt Ltd, Chennai
Mr.Vijaya Rajeswaran, Managing Director, VI Microsystems, Chennai
Mr.Murugaiyan, Scientist, SAMEER, Chennai
Mr.Selvaraj, Asst.Executive Engineer, BSNL, Chennai
Mr.Azad, Asst Engineer, Reach Information systems, Coimbatore
Mr.Krishnamoorthy, Manager, SANDS,Chennai
Mr.S.Ravichandran, Manager-Design, Andrew Yule & Company Ltd
Prof. A. Arumugam, Professor, College of Engineering
Mr.B.Venkatesh, AP, College of Engineering
Mr.K.Santhosh Kumar, Director, Vibe Institute of Engineering
Dr.Kannan,professor, Texas state university.
Mrs..L.Jessi Sahaya ,Santhi , , Asst Professor,Thyagaraja college of engineering, Chennai.
Dr.N.O.Gunasekar,Dean, school of electrical science,Bharath university
Mr.C.Muthukumaraswamy, IAS,wise chairman and chief executive officer, tamilnadu maritime board, Chennai.
Mr.Kumaravel, CWET, Scientist, pallikaranai, Chennai.
Dr.Radhakrishnan, Professor, Anna University, Chennai.
Mr.L.R.Venkatesh, Director, vesat solar products, Coimbatore.
Mr.P.Sudharsan, senior program executive, Infosys, Chennai

13. **Percentage of classes taken by temporary faculty – programme - wise information** : NIL

14. **Programme- wise Student Teacher ratio**

By taking into account the subject handled by the faculty members of other departments into consideration, the teacher student ratio of the department is 1:15.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Support staff (technical)	8	8
Administrative staff	Nil	Nil

16. **Research thrust areas as recognized by major funding agencies**

Power System

- Power System Optimization
- Power System Control
- Power System atomization
- FACTS
- Deregulated Power System
- Smart Grids

Power Electronics

- Drives and Control
- Power Converters
- Power Quality Management

Special Electrical Machines

Renewable Energy

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Mrs. G.R.P. Lakshmi Dr. Hari Krishnan	Development of Electro-thermal model for Quality Assurance of Material and Coatings	Indira Gandhi Center For Atomic Research, Kalpakkam.	18/07/2011	Rs. 10,00,000/-	2 years
Total					Rs. 10,00,000/-	2 years

18. **Inter-institutional collaborative projects and associated grants received** : NIL
a) National collaboration b) International collaboration

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Mrs. G.R.P. Lakshmi Dr. Hari Krishnan	Development of Electro-thermal model for Quality Assurance of Material and Coatings	Indira Gandhi Center For Atomic Research, Kalpakkam.	18/07/2011	Rs. 10,00,000/-	2 years
Total					Rs. 10,00,000/-	2 years

20. **Research facility / centre with**

Centre for Space Technology

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

S.No	Name of the Equipment	Agency Sponsored / Industry
1	Uni SP Driver Module for AC Drives – 1401	Emerson - Control Techniques

22. **Publications:**

- Number of papers published in peer reviewed journals (national / international) : 648
- Monographs : Nil
- Chapters in Books : 03
- Edited Books : 11
- Books with ISBN with details of publishers : 8
 - Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Scopus: 306 Web of Science : 23
- Citation Index – range / average : 1 – 337 / 3.42
- SNIP : 0.034 – 2.065
- SJR : 0.031 – 3.12
- Impact Factor – range / average : 0.13 – 3.491 / 1.1827
- h-index : 7

23. **Details of patents and income generated** : NIL

24. **Areas of consultancy and income generated** :

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned	Duration
1	Converteam -The power conversion company, Chennai	Executive development program – as an “Engineering refresher course	Rs. 1,08,000	January 2007 to April 2007

25. **Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad :**

Infra Red testing Laboratory, IGCAR, Kalpakkam – Ms. G.R.P. Lakshmi, Dr. C.N. Ravi, Mr. R. Harikrishnan and Mr. V. Senthilnayagam

Eddy Currents control Ltd., Kerala – Ms. E.Annie Elisabeth Jebaseeli and Ms. D.Susitra

ISRO – Dr.K.Vasanth

26. **Faculty serving in**

a) National committees b) International committees c) Editorial Boards d) any other (please specify)

Some of our faculty members are serving as editorial board members and as reviewers in international and national journals and conferences, the details of which are furnished below.

Journal Reviewer

Reviewer Name	Journal Name	Place	Print-ISSN	E-ISSN	Index	Impact Value
E.Annie Elisabeth jebaseeli	International Journal of power Electronics	Inderscience publication	1756-638X	1756-6398	SCOPUS (Elsevier) Compendex, Academic one file Expanded academic ASAP	-
Ms. D. Susitra	International Journal of power Electronics	Inderscience publication	1756-638X	1756-6398	SCOPUS (Elsevier) Compendex, Academic one file Expanded academic ASAP	-
Ms. D. Susitra	Energy conversion and management	Elsevier	-	0196-8904	Web of Science, SCOPUS (Elsevier) Compendex, Science Direct, Academic one file Expanded academic ASAP	3.604
Ms. D. Susitra	Journal of the Instituion of Engineers (India), Series - B	IET	2250-2106	2250-2114	Google Scholar, EBSCO, ProQuest	-
Ms. D. Susitra	Indian Journal of Science and Technology	Informatics publishing Ltd.,	0974-6846	0974-5645	SCOPUS	-
G.Nagarajan	International Journal of Electrical Power and Energy Systems	ELSEVIER	0142-0615	-	ELSEVIER, Science Direct, SCOPUS	3.432

Reviewer Name	Journal Name	Place	Print-ISSN	E-ISSN	Index	Impact Value
Dr.G.Nagarajan	American Journal of Applied Sciences	Science Publications (Australia)	1546-9239	1554-3641	SCOPUS	1.4
Dr.G. T. Sundar Rajan	American Journal of Applied Sciences	Science Publications (Australia)	1546-9239	1554-3641	SCOPUS	1.4
Dr. S.D.Sundarsingh jebaseelan	Journal of Electrical and Control Engineering (JECE)	American V-King Scientific Publishing, New York, USA	2226-2881	2226-289x	Google Scholar	-
	International Journal of Engineering Research and Technology	ESRSA Publication	2278-0181	-	Google Scholar	1.76
	International Journal of Electronics and Electrical Engineering (IJEED)	ETP Publication	2301-380X	-	Google Scholar	-
Dr. K.Vasanth	IEEE Transactions on Image Processing	IEEE	1057-7149	1057-714X	Web of Science, SCOPUS (Elsevier) Compendex, Science Direct, Academic one file Expanded academic ASAP	2.17
Dr. K.Vasanth	American Journal of Applied Sciences	Science Publications (Australia)	1546-9239	1554-3641	SCOPUS	1.4

Reviewer Name	Journal Name	Place	Print-ISSN	E-ISSN	Index	Impact Value
Dr. K.Vasanth	IEEE Transactions on Signal processing	IEEE	1053-4879	1053-587X	Web of Science, SCOPUS (Elsevier) Compendex, Science Direct, Academic one file Expanded academic ASAP	2.6
Dr. K.Vasanth	Auto Soft Journal	Taylor and Francis	10798587	2326005X	Web of Science, SCOPUS (Elsevier) Compendex, Science Direct, Academic one file Expanded academic ASAP	0.49
Dr. K.Vasanth	International journal of Signal vision and image processing	Springer, United kingdom	1863-1711	1863-171X	Web of Science, SCOPUS (Elsevier) Compendex, Science Direct, Academic one file Expanded academic ASAP	1.19
Dr.R.Hari Krishnan	Wireless Personal communications	Springer	, 0929-6212		Web of Science, SCOPUS	0.7

International Conference Reviewer

Reviewer Name	Conference Name	Series	Date	Organizer	Print- ISSN
Dr.V.Sivachidambaranathan	International Conference on “Advanced Nanomaterials and Emerging Engineering Technologies” (ICANMEET-2013)	-	24-26 th July, 2013	Sathyabama University	-
Dr.V.Sivachidambaranathan	Internal Conference on Recent Advances in Physics for Interdisciplinary Developments (ECRAPID-2014),	-	23-24, January, 2014	Sathyabama University	-
Dr.G.Nagarajan	International Conference on Circuits, Power and Computing Technologies (ICCPCT)	IEEE	20 Mar - 21 Mar 2013	Noorul islam centre for higher education University	-
Dr.C.N.Ravi	International Conference on Circuits, Power and Computing Technologies (ICCPCT)	IEEE	20 Mar - 21 Mar 2013	Noorul islam centre for higher education University	-
Dr.S.D.Sundarsingh Jebaseelan	International Conference on Circuits, Power and Computing Technologies (ICCPCT)	IEEE	20 Mar - 21 Mar 2013	Noorul islam centre for higher education University	-
Dr.G.Nagarajan	International Conference on Circuits, Power and Computing Technologies (ICCPCT)	IEEE	20 Mar - 21 Mar 2014	Noorul islam centre for higher education University	-
Dr.C.N.Ravi	International Conference on Circuits, Power and Computing Technologies (ICCPCT)	IEEE	20 Mar - 21 Mar 2014	Noorul islam centre for higher education University	-

Reviewer Name	Conference Name	Series	Date	Organizer	Print- ISSN
Dr.K.Vasanth	International Conference on Soft Computing in Applied Engineering & Sciences, (ICSCASE-2015)	Scopus	23th and 24th july 2015	Noorul islam centre for higher education University	
Dr.K.Vasanth	International Conference on Control, Instrumentation, Communication and Computational Technologies, (ICCICCT-2014)	IEEE	29th and 30th October 2014	Noorul islam centre for higher education University	
Dr.K.Vasanth	International Conference on Control, Instrumentation, Communication and Computational Technologies, (ICCICCT-2015)	IEEE	December 4-5,2015	Noorul islam centre for higher education University	

Journal Editorial Board Members

Editorial Board Members	Journal Name	Series	Print-ISSN	E-ISSN	Index	Impact Value
Dr. V. Sivachidambaranathan	International Journal of Power Systems and Energy Management (IJPSEM)	-	2277-8438	-	-	-

Editorial Board Members	Journal Name	Series	Print-ISSN	E-ISSN	Index	Impact Value
Dr.G.Nagarajan	International Journal on Integrating Technology in Education (IJITE)	Academy & Industry Research Collaboration Center (aircc)	2320 - 3935	2320 - 1886	Google Scholar, Pubzone Citeseer, Scribd, Ulrichsweb Getsited, Pubget, OpenJ-gate	-
Dr.G.Nagarajan	The International Journal of Chaos, Control, Modeling and Simulation	Academy & Industry Research Collaboration Center (aircc)	2319 - 8990	2319 - 5398	Google Scholar Pubzone, Citeseer Scribd, Ulrichsweb Getsited, Pubget, OpenJ-gate DOAJ	-
Dr.S.D.Sundarsingh Jebaseelan	International Journal of Engineering Research and Technology	ESRSA	2278-0181	-	Google Scholar, Index copernics, Research gate Scribd, Getsited	1.76
Dr.S.D.Sundarsingh Jebaseelan	Journal of Electrical and Control Engineering	American V-King Scientific Publishing	2226-2881	2226-289X	Google Scholar, Open J-Gate, getCITED, Electronic Journals Library, OpenJ-gate, DOAJ	-

Committee member :

Faculty Name	Committee
Dr.V.Sivachidambaranathan	a. Senior Member in IACSIT, International Association of Computer Science and Information Technology, Singapore. b. Board of Studies member in AMET University, Chennai
Dr.C.N.Ravi	a. Member in IACSIT, International Association of Computer Science and Information Technology, Singapore

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S.No	Date	Name of the Program	Topic
1.	15 th – 27 th March 1999	Short term course	Recent trends in power generation and energy management
2.	15.02.2006	National Level Workshop	Energy Conservation and Management
3.	09.04.2006	National Level Workshop	Embedded System Development using ARM Controllers
4.	22.7.2006 -24.7.2006	Workshop	Embedded system development using ARM controller and Embedded C Co organized by Sathyabama University & ISM-Bangalore
5.	6th - 8th September 2006	Training Programme L&T Switchgear Training Centre, Coonoor	Programme for Engineers of the Future
6.	November 2006	Conference	3 rd annual masters conference Microchip technology, Bangalore
7.	8th -12th January 2007	Faculty Training Programme Amrita School of Engineering, Coimbatore	Electromagnetic Compatibility
8.	28.05.2007 to 09.06.2007	Faculty Development, Rajalakshmi Engineering College	Design of Electrical Apparatus
9.	10-8-2007	Workshop	Energy sources
10.	27 th and 28 th September 2007	Workshop	workshop on Virtual instrumentation for process control Applications Sathyabama University, Chennai

S.No	Date	Name of the Program	Topic
11.	3rd and 4th January 2008	S.A. Engineering College, Chennai	workshop on Energy Crisis – Remedial measures
12.	7th & 8th February 2008	Workshop L&T Switchgear Training Sathyabama University	Energy Conservation in Industries, Reactive power management, AC Variable Frequency Drives & Soft Starters
13.	02.06.2008 & 03.06.2008	National Level Workshop	Sensor Web Enablement
14.	24.06.2008 To 06.12.2008	Staff Development Programme	Embedded based Systems Design in Power Systems for Power Quality Improvement
15.	26 th to 27 th December 2008	Short term training programming	Application of Power Electronics to power Transmission and Distribution Systems
16.	21 st & 22 nd February 2009	National workshop	MAGNET-A design tool RMK Engineering College
17.	23 Mar 2009	B.S. Abdur Rahman University	National workshop on Evolutionary Optimization Techniques
18.	25th & 26th March 2009	National Level Seminar Park college of Engineering and Technology, Coimbatore.	Recent Trends in Monitoring & Control of Power System Disturbances
19.	7 th & 8 th August 2009	Workshop Organized by Sathyabama University	How to do Research
20.	9th – 11th September 2009.	National Seminar Pondicherry Engineering College	Intelligent System Applications to Future Challenges in Power Engineering
21.	9 th Oct 2009	National workshop	National workshop on Industrial Applications of Finite Element Methods Sathyabama University
22.	1 st March 2010	National Conference	National Conference on Computational Intelligence in Electrical and Electronics Engineering Sathyabama University

S.No	Date	Name of the Program	Topic
23.	18 th June 2010	National Level workshop, Department of EEE , Sathyabama University	National workshop on Computational Intelligence
24.	29 th & 30 th July 2010	National conference	National conference on Future Challenges and Budding Intelligent Techniques in Electrical and Electronics Engineering Sathyabama University
25.	13.08.2010	National Level Workshop Sathyabama University	Research Problem Formulation and Output Documentation
26.	30 th Aug to 3 rd Sep, 2010	Training Conducted by Control Techniques, Emerson Industrial Automation, Chennai	Unidrive SP Product Training
27.	30 th AUG- 3 rd SEPT 2010	Short term course	Unidrive SP product
28.	30 th Aug to 3 rd Sep 2010	Faculty Development Programme	Faculty Development Programme on Unidrive SP Product Training Emerson Industrial Automation, Chennai
29.	24 th -25 th September 2010	Short term course	Power system protection & High voltage Engineering
30.	16 December 2010.	International workshop	International workshop on Artificial Intelligence Techniques for Power Systems and Power Electronics Engineers SRM University, Chennai
31.	20-21 December 2010.	National level Workshop	Application of MATLAB/Simulink to Electrical engineering
32.	5 th March, 2011	International Technical Seminar Organized by indian society of lighting engineers (isle), Chennai	Green Lighting for a Greener World

S.No	Date	Name of the Program	Topic
33.	9 th April 2011	National level Workshop	PLC & Automation
34.	20-4-2011 & 21-4-2011	Workshop	Advances in design and control for performance enhancement in permanent magnet motors.
35.	1 st to 3 rd December 2011	Workshop	Applications of advanced signal/ image processing for quality assurance in food processing industry by imaging techniques.
36.	11.08.2011 & 12.08.2011	Introductory Course and Workshop College of Engineering, Anna University, Chennai-600 025	PSCAD Power System Simulator
37.	05 th January 2012	National Level Workshop Held at VIT, Chennai in association with PRDC	Smart Grid Technologies: Opportunities and Challenges
38.	7-3-2012	FDP	Matlab applications in electrical engineering
39.	28-4-2012	National seminar at VIT university Chennai	Exploring research areas in harnessing wind energy
40.	24 th August 2012	Workshop Chennai	MATLAB & Simulink for Engineering Education
41.	31 st august 2012	Faculty Development Programme	Embedded control of Electrical drives
42.	31/8/12	Faculty Development Program	Embedded Control of Electrical Drives
43.	2012	Workshop	MATLAB for Engineering Students

S.No	Date	Name of the Program	Topic
44.	Nov'2&3 2012	National workshop at SSN college of Engg, Chennai	Feedback controllers for power converter
45.	05-11-2012	National Level Workshop Held at VIT, Chennai in association with PRDC	Smart Grid Technologies: Opportunities and Challenges
46.	9-11-2012 & 10-11-2012	Workshop	Design ,simulation and analysis of brushless permanent magnet motor
47.	30/11/2012-1/12/2012	Recent Advances in Mathematical Computing	National level Workshop on 'Recent Advances in Mathematical Computing' In St. Joseph's Institute of technology
48.	15.12.2012	National Level Workshop Department of Physics , Sathyabama University	R&D Proposals- Approach and Preparation
49.	04.01.2013	National Seminar	Soft Computing Techniques for Power Systems and Power Electronics Applications
50.	4 th January 2013	National Seminar VIT, Chennai Campus	Soft Computing Techniques for power systems and power electronics Applications
51.	25.01.2013	Faculty Development Programme, IEEE Student Branch , Sathyabama University	New Millennial Expectations- Role of a Teacher
52.	25 th Feb, 2013	Faculty Development Programme Organized IEEE Students branch, Sathyabama University	New Millennial Expectations – Role of a Teacher
53.	15 th February2013	National level seminar VIT, Chennai Campus	Advanced digitalized controller application for power electronics and drives
54.	07.03.2013	Faculty Development Programme, Department of Management Studies, Sathyabama University	Financial Literacy

S.No	Date	Name of the Program	Topic
55.	8th and 9th March 2013	UGC sponsored short term course at Anna university	Research methodology, techniques of writing research article for SCI journals and Ph.D. thesis preparation
56.	26/3/13	One day National Level Workshop	Image processing in VLSI
57.	13/7/13	Workshop	Paraphrasing & Preventing Plagiarism
58.	1.8.2013 & 2.8.2013	FACULTY DEVELOPMENT PROGRAMME	LABVIEW FOR BIOMEDICAL APPLICATIONS
59.	14.08.2013	Faculty Development Programme	Electrical Drives And Control Applications Based On Artificial Intelligence Techniques
60.	14 th Sep, 2013	International Conference Organized by indian society of lighting engineers (isle), Chennai.	Emerging trends in Lighting Concepts for a Greener World
61.	October 2013	Awareness programme	Awareness programme on Solar applications Organized by CII
62.	17-23 October 2013	Orientation Course	for NSS Programme Officers
63.	04.12.2013 & 05.12.2013	National Level Seminar Department of EEE , Prathyusha Institute of Technology and Management	Power Electronics for Renewable Energy Systems
64.	7 th December 2013	Workshop	How to publish papers in refereed Journals Organized by RMK Engineering College
65.	13/12/13	Faculty Development Programme	Art of Investing in Stock Markets

S.No	Date	Name of the Program	Topic
66.	19/12/2013	MODERN ELECTRICAL DRIVES	National level Workshop on 'MODERN ELECTRICAL DRIVES' In St. Joseph's Institute of technology
67.	06.01.2014 to 17.03.2014	Online Certificate Course Georgia Institute of Technology	Linear Circuits
68.	6 & 7 th /03/2014	Workshop	Design and simulation of circuit and devices using ORCAD
69.	5 th and 6 th /03/2015	Workshop	Optimization techniques in engineering using MATLAB
70.	13 th and 14 th /10/2015	Workshop	Design and simulatuion of analog lcs using ORCAD

28. Student projects

- **Percentage of students who have done in-house projects including inter- departmental projects**

In each Batch, 80% of students are doing in-house projects in both UG and PG.

- **Percentage of students doing projects in collaboration with other universities/industry / institute**

In each Batch, 20% of students are doing projects in reputed Government / Non- Government core industries in both UG and PG.

29. Awards / recognitions received at the national and international level by

		National Level	International Level
Staff		3	-
Students	(Extra / Cocurricular)	104	
	Sports	25	

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

a. National Conference

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
1.	National Conference on “Future Challenges and Budding Intelligent Techniques in Electrical and Electronics Engineering” NCEEE2010	29 – 30 th July 2010	Genlite Engineering Pvt. Ltd. Chennai	Dr. M. Abdullah Khan, Professor of Eminence, B.S.A.R. University, Chennai Dr. P.E. Sankaranarayanan, Dr. S.R. Krishnamurthy, Ph.D., former Member Generation TNEB Chennai Dr. S.S. Dash, Ph.D Professor & Head, Dept. of EEE,SRM University
2.	National Conference on “Computational Intelligence in Electrical and Electronics Engineering” NCIEEE2012	1 – 2 nd March 2012	Genlite Engineering Pvt. Ltd. Chennai.	Dr. B.Venkatraman Associate Director (RSEG) Indira Gandhi Centre for Atomic Research, Kalpakkam – 603 102. Dr. K. S. Swarup, Professor, Dept of Electrical Engineering, IIT Madras Dr. S.R. Krishnamurthy, Former TNEB Member
3.	National Conference on “Computational Intelligence in Electrical and Electronics Engineering” NCIEEE2013	21 – 22 nd Feb 2013	Genlite Engineering Pvt. Ltd., Chennai.	Dr. K. S. Swarup, Professor, Dept of Electrical Engineering, IIT Madras
4.	National Conference on “Computational Intelligence in Electrical and Electronics Engineering” NCIEEE2014	6 – 7 th Feb 2014	Genlite Engineering Pvt. Ltd. Chennai.	Dr. G.T. Manohar, Professor, IIT Madras. Dr. Subhransu Sekhar Dash, Prof. & Head, Department of EEE SRM University, Chennai

b. Workshops / FDP

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
1.	ZOCIS' 08 Students Symposium	8 th & 9 th September 2008	GrundFos, Chennai Escol Enterprises, Chennai Associate Engineers, Chennai	-
2.	ZOCIS' 09 Students Symposium	24 th & 25 th Aug' 09	Genlite Engg Pvt. Ltd GrundFos, Chennai Naturals India Cements Johnson Lifts Pvt Ltd	-
3.	National Level workshop, Department of EEE , Sathyabama University	18 th June 2010	National workshop on Computational Intelligence	
4.	Workshop on Electrical Drives – UNI Drive SP Model by Emerson Control Techniques, Chennai	17 th Aug 2011	Emerson Control Techniques, Chennai	Mrs. Sonia Junior Engineer, Emerson Control Techniques
5.	Technical Workshop on Industrial Automation (PLC&SCADA)	8 th – 11 th Aug 2011	Technocrat Automation Solution Pvt. Ltd, Chennai	Mrs. Mala Anand Admin. Manager Technocrat Automation Solution Pvt. Ltd.
6.	Faculty Development Programme	14.08.2013	Electrical Drives And Control Applications Based On Artificial Intelligence Techniques	Dr.N.S.Bhuvanewari, SRM Easwari Engineering College

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
7.	Entrepreneurship Skill Development Program on "House Wiring"	November to December, 2013 6 weeks	Ministry of Small and Micro Enterprise (MSME) Development Institute, Govt. of India	-
8.	Entrepreneurship Skill Development Program on "House Wiring"	10 th Jan to 14 th Feb, 2014.	Ministry of Small and Micro Enterprise (MSME) Development Institute, Govt. of India	-

31. **Code of ethics for research followed by the departments**

- The highest priority is given to research activities both in the form of Ph.D research and real time implementable funded research projects.
- To achieve more publications in reputed indexed journals with impact factor, SNIP & JSR rating.
- To achieve high H – Index and citation index.

32. **Student profile programme-wise:**

a. **Profile:**

Name of the Programme (refer to question 4)	Year / Batch	Application received	Selected	
			Male	Female
B.E – EEE- REGULAR	IV / 2013	4730	154	39
	III / 2014	4692	164	44
	II / 2015	4836	74	40
	I / 2016	4951	59	44

Name of the Programme (refer to question 4)	Year / Batch	Application received	Selected	
			Male	Female
B.E – EEE- PART TIME	VII / 2013 JUNE	230	46	7
	VI / 2014 JAN	165	35	5
	V / 2014 JUN	160	37	3
	IV / 2015 JAN	129	26	5
	III / JUN 2015	110	37	4
	II / JAN 2016	105	12	3
	I / JUN 2016	102	41	2
M.E – POWER ELECTRONICS – PART TIME	III / 2014	29	8	6
	II / 2015	23	3	4

c. University Results – April / May 2016 Examinations :

Name of the Programme (refer to question 4)	Year / Batch	Pass Percentage	
		Male	Female
BE – EEE- REGULAR	IV / 2012 (8 th sem)	80.24	100
	III / 2013 (6 th sem)	74.03	87.18
	II / 2014 (4 th sem)	67.28	97.87
	I / 2015 (2 nd sem)	42.25	87.5
BE – EEE- PART TIME	VII / 2013 JAN	62.5	71.43
	IV / 2013 JUNE (6 th sem)	34.78	85.71
	III / 2014 JUNE (5 th sem)	21.62	33.33
	III / 2014 JAN (6 th sem)	25.71	100
	II / 2015 JUNE (3 rd sem)	45.95	100
	II / 2015 JAN (4 th sem)	42.31	100
	I / 2016 JAN (2 nd sem)	50	66.67

Name of the Programme (refer to question 4)	Year / Batch	Pass Percentage	
		Male	Female
ME – POWER ELECTRONICS AND INDUSTRIAL DRIVES – PART TIME	2013 (VI sem)	92.3	100
	III / 2014 (5 th sem)	75	83.33
	II / 2015 (3rd sem)	90	95

33. Diversity of students

Name of the Programme (refer to question no. 4)		% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Course	Batch				
ME – Power Electronics and Industrial Drives	2012	5 %	25 %	70 %	-
	2013	3 %	78 %	20 %	-
	2014	3 %	32%	65%	-
	2015	20 %	20 %	60%	-
	2016	-	63 %	37 %	-
ME – Power Electronics and Industrial Drives – PART TIME	2013	12 %	68 %	20 %	-
	2014	5 %	65 %	30 %	-
	2015	7 %	80 %	13 %	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)	
		Students Batch	No of students
1	Defense Services	2009-2013	1
2	IELTS	2003-2007	2
		2004-2008	3
		2005-2009	6
		2006-2010	1
		2007-2011	6
		2008-2012	2
		2009-2013	5
		2010-2014	1
		2011-2015	1
		2012-2016	1
3	GRE	2004-2008	10
		2005-2009	9
		2006-2010	1
		2007-2011	5
		2008-2012	5
		2009-2013	9
		2010-2014	8
		2011-2015	4
2012-2016	5		

S.No.	Name of the examination	No of students cleared (year wise)	
		Students Batch	No of students
4	TOEFEL	2003-2007	2
		2004-2008	8
		2005-2009	11
		2006-2010	1
		2007-2011	2
		2008-2012	2
		2010-2014	4
		2011-2015	4
	2012-2016	1	
5.	GMAT	2008-2012	2
		2012-2016	1
6	GATE	2007	2
		2010	5

35. Student progression

Student progression	Percentage against enrolled
UG to PG	25 %
PG to M.Phil.	Nil

Student progression	Percentage against enrolled
PG to Ph.D.	10 %
Ph.D. to Post-Doctoral	Nil
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	UG : 2011 - 2015: Registered=146, Placed=140, % = 95.89% PG : 2013 - 2015 Registered = 12, Placed = 11, % = 91.67 %
Entrepreneurs	10 %

36. Diversity of staff

Percentage of faculty who are graduates	UG	PG
of the same university	10 %	57%
from other universities within the State	85 %	43 %
from universities from other States	5%	Nil
from universities outside the country	Nil	Nil

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Eleven faculty members were awarded Ph.D. during the assessment period.

38. Present details of departmental infrastructural facilities with regard to

a) Library

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
12,344	242	Rs. 29,87,387

b) Internet facilities for staff and students:

- Department provides high speed internet connection in around 90 PCs for facilitating research activities among students and staff.
- IEEE digital library access to department.

c) Total number of class rooms : 14

d) Class rooms with ICT facility : 01

e) Department laboratories

S. No	Name of the Laboratory	Area in Square Feet	Cost of Equipment (In Lakhs)
1	ELECTRICAL MACHINES LAB	4500	45
2	ELECTRICAL WORK SHOP LAB	2050	0.9
3	POWER SYSTEMS SIMULAION LAB	2000	23
4	POWER ELECTRONICS LAB	4500	30
5	EMBEDDED SYSTEM LAB	2000	35
6	ELECTRONIC DEVICES AND CIRCUITS Lab	4500	20

39. List of doctoral, post-doctoral students and Research Associates

- a) from the host institution/university :18 (4 Years)
- b) from other institutions/universities : 39 (4 Years)

40. Number of post graduate students getting financial assistance from the university : Nil

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Yes. A post graduate course on Master of Engineering in Wind Energy Technology has been incepted during the assessment year.

- Course curriculums from reputed International and National Universities for the same have been referred meticulously in framing the curriculum.
- Inputs from industrial experts in the field are collected in order to construct the curriculum to meet the Industrial demands.
- Feedback from alumni students who carry out their higher studies on the proposed course in International and National Universities are collected and the same is considered in the construction of the curriculum.

42. Does the department obtain feedback from

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Department collects feedback for each subject from the faculties who are proficient in the respective subjects. These feedbacks are considered along with the suggestions of Board of studies (BOS) members in reframing / refining the syllabus.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Based on the skill competency matrix of staff members, the subjects are allotted for all the staff members. The Head of the Department collects the feedback from students about the staff performance and other grievances related to curriculum immediately after one month after the starting of the semester. Depending on the feedback, the Head of the Department will have one to one discussion with the corresponding staff members to sort out the issues. At the mid of the semester, feedback is collected back from the students to assure the students comfort ability.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

Feedbacks about the programmes are collected from the alumni's as and when they visit the Department. Alumni's who are working in the city are often called and feedbacks are collected relating to the industrial needs and these feedbacks are considered in reframing / retuning the syllabus which takes place once in four years.

Feedback from the employers who have recruited the students are also considered in the formation of curriculum either in the way of introducing new subjects or including new concepts in the existing subjects as per the demand of present industrial needs.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Students Batch	Position
1.	Mr. K. Karthikeyan	1996	Senior Engineering Manager (Electrical), L & T Constractions – Buildings & Factories, Chennai
2.	Mr.Srivatsan.M.D	2007	Sales Manager, Larsen & Toubro Ltd., Chennai.
3.	Mr.Madhan.J	1993	Managing Director, Jeevas Communications, Chennai 600 034
4.	Mr.Abraham Rabinder	1999	Manager, Human Resources Global Outsourcing Asia Operations, Chennai – 18
5.	Ms.R.Amrutha Varshini	2007	Matlab Programmer, Chrysler – Fiat, Chennai.

S.No	Name	Students Batch	Position
6.	Mr.Prabakaran Panneer	2002	Project Manager, Accenture - Mumbai
7.	Mr.Vasanth Vignesh Kumar	2008	HCL Technologies
8.	Mr.Hari Chandar Jain	2008	Jindal Power
9.	Mr.Abaina Jain	2008	CISCO
10.	Ms.Kiruthika	2003	Technical Managar, IBM, Chennai DLF.

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	31
Workshops	12
Seminars	08

45. List the teaching methods adopted by the faculty for different programmes.

- For theory subjects 75 % of the teaching methodology involves class room lecture with interrogative session at the end of each unit. Class room lecture for PG classes involves LCD projector. The supporting methodologies are listed below.
- To enhance the knowledge in advanced topics, expert resource persons from industries and academic institutions are invited to give lectures on the current trends in that particular area.
- Industrial visits relative to the subjects under study are arranged to various organizations to get exposure to the real time scenario.
- Seminar classes are allotted to interested students

- Soft skills training is provided to prepare the students for facing placement interviews.
- Conducting Hands on Workshops for the relevant subjects.
- Assignments are given to enhance the knowledge
- Project Exhibitions are arranged to showcase the talents and to share knowledge.
- For laboratory subjects, real time tests are conducted on the equipments or machines and students are taught to explore knowledge through observations and results.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The goal and objectives are set at the beginning of each semester. The objective of the department is reviewed every month and at the end of the semester which is updated in the review matrix.

The parameters in the review matrix includes pass percentage of each batch, no of doctoral, the percentage of the students secured first class in their final examination, the review of labs, number of industrial visits and guest lecturers arranged for the student, feedback taken from the student about curriculum and infrastructure, articles which are published in conferences and journals by the staff members etc. The data documented are reviewed once in a month and necessary actions are initiated in order achieve the set objective.

47. **Highlight the participation of students and faculty in extension activities.**

- Various student development cell catering to the interest of various disciplines.
- Sports
- Cultural activities
- NSS
- University Band
- Blood Donation Camps
- Various other activities are carried out by the students for social welfare.

48. **Give details of “beyond syllabus scholarly activities” of the department.**

Beyond curriculum activities such as Industrial Visit, Guest Lecturer, in-plant training, project development, and technical Symposium.

Students are motivated to participate in the various technical and non technical competition organized in various Universities / Colleges / Organisations.

49. **State whether the programme / department is accredited / graded by other agencies? If yes, give details.**

Accredited by NAAC with B++ grade, declared as category “A” university by the task force appointed by the Ministry of Human Resource and Development, Government of India.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Simulation tools such as Orcad - PSpice / Matlab Simulink and virtual instrumentation tool (Labview) are introduced to students apart from their curriculum.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths

Many of the staffs have presented research papers in international conferences held at various countries across the world.

Many of the staffs have published many research papers in diversified technical fields in various reputed international journals.

Many students have participated and won the prizes in the sports events conducted by various universities and colleges.

Many students have participated and won the prizes in the technical symposium organized by various universities and colleges.

Weaknesses

Number of funded projects obtained in the department needs to be improved.

Number of research papers published by the staff members with high impact factor and standard indexing needs to be improved.

Collaboration of the department with other Institutions and Industries have to be improved.

Opportunities

The department possesses advance equipments required for carrying research by research scholars.

A research laboratory can be established exclusively for the department with the expansion of advanced equipments and technology.

Challenges

To achieve improved percentage of placement of students in core electrical industries.

To enrich the motivational program on self entrepreneurship to students in order to achieve 100% employment.

To motivate the staff to identify and compete in the recognition / awards for academic faculty in National / International level.

52. Future plans of the department.

- To aim in obtaining more number of funded projects from various funding agencies.
- To encourage research and development activities in collaboration with industries in order to apply for intellectual property rights
- Specialized UG and PG courses are planned to be initiated.

UG courses

1. Electrical and Communication Engineering
2. Electrical and Computer Engineering

PG courses

1. Electrical Machines
2. Control System Engineering

Department of Electronics and Communication

1. **Name of the Department** : Department of Electronics and Communication Engineering
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university?**
School of the University – School of Electrical and Electronics
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc. D.Litt., etc.)**

Regular Courses:

UG : B.E E.C.E
PG : M.Tech VLSI Design
M.E Embedded Systems
M.Tech Nanotechnology

Part-time Courses:

UG : B.E E.C.E
PG : M.Tech VLSI Design

Ph.D Program :

Docotoor of Pholosophy
M.Tech (By Research)

5. **Inter Disciplinary programmes and departments involved** :

OFFERING A CERTIFICATE COURSE FOR SCHOOL OF ELECTRICAL AND ELECTRONICS ENGINEERING STUDENTS NAMED "SCIENTIFIC SENSE OF SILICON SYSTEMS - SOS"

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

A certificate course on "Advanced Electronic Test Engineering" is conducted by the department for a period of 6 months in collaboration with QMAX Test Equipments Limited.

7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester and Absolute Credit based system till 2014

9. **Participation of the department in the courses offered by other departments**

Department staff handles theory subjects such as Principles of Communication, Digital Signal Processing, Telecommunications , Information Theory and Electronics Devices and circuits for the IT Department. Labs handled for the I.T Department includes Communication and Microprocessor Labs. For Mechanical and Production department electronics part of Electrical and Electronics subject is handled by the department staff.

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	07	07
Associate professors	06	06
Assistant Professors	29	29
Others	-	-
Total	42	42

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No.	NAME OF THE FACULTY	QUALIFICATION	DESIGNATION	SPECIALIZATION	NO. OF YEARS OF EXPERIENCE	NO. OF Ph.D./ M.Tech (By Research) STUDENTS GUIDING FOR THE LAST 4 YEARS
1.	Dr.E.Logashanmugam	M.E., Ph.D	Dean – Staff Affairs	Video signal processing	25	08
2.	Dr.G.Sundari	M.E., Ph.D	Dean – Student Affairs	Wireless Networks	18	08
3.	Dr.N.M. Nandhitha	M.E., Ph.D	Dean – School of Electrical and Electronics	Digital Image Processing	18	08
4.	Dr.K.V.Karthikeyan	M.E., Ph.D	Professor and Head of the Department	Software defined radio	18	06
5.	Dr.S.Lakshmi	M.E., Ph.D	Professor	Wireless networks	15	01
6.	Dr.V.G.Sivakumar	M.E., Ph.D.,	Professor	Embedded Systems	15	03
7.	Dr.M.R.Ebenezar Jebarani	M.E., Ph.D	Assoc. Professor	Wireless sensor Networks	13	02
8.	Dr.P.Chitra	M.E., Ph.D	Assoc. Professor	Digital Image Processing	12	NIL
9.	Dr.P.Kavipriya	M.E., Ph.D	Professor	Wireless networks	15	NIL
10.	Dr.T.Ravi	M.E., Ph.D.,	Assoc. Professor	Low Power VLSI Design	12	06
11.	Dr.S.Karthikeyan	M.E., Ph.D	Assoc. Professor	Wireless Sensor Networks	13	08

S.No.	NAME OF THE FACULTY	QUALIFICATION	DESIGNATION	SPECIALIZATION	NO. OF YEARS OF EXPERIENCE	NO. OF Ph.D./ M.Tech (By Research) STUDENTS GUIDING FOR THE LAST 4 YEARS
12.	Dr.V.J.K.Kishor Sonti	M.Tech., Ph.D	Assoc. Professor	Low Power VLSI	12	01
13.	Ms.K.Srilatha	M.E., (Ph.D)	Assoc. Professor	Electromagnetics	14	NIL
14.	Ms.A.Nandhini	M.E., (Ph.D)	Asst.Professor	Digital Integrated Circuits	11	NIL
15.	Mr.G.Jegan	M.E., (Ph.D)	Asst.Professor	RF Antenna	10	NIL
16.	Mr.T.Vino	M.E., (Ph.D)	Asst.Professor	Digital Image Processing	10	NIL
17.	Ms.G.Indhumathy	M.E., (Ph.D)	Asst.Professor	VLSI	10	NIL
18.	Mr.M.Sugadev	M.Tech., (Ph.D)	Asst.Professor	RF and Wireless Communication	08	NIL
19.	Dr.V.Vijayakumar	M.Tech., Ph.D	Asst.Professor	VLSI	08	NIL
20.	Ms.L.Magthelin Theras	M.E., (Ph.D)	Asst.Professor	Microwave	08	NIL
21.	Ms.P.Muthukrishnammal	M.Tech (Ph.D)	Asst.Professor	VLSI	08	NIL
22.	Dr.B.Rajasekar	M.Tech., Ph.D	Asst.Professor	VLSI	08	NIL
23.	Ms.Rexlin Sheeba	M.Tech (Ph.D)	Asst.Professor	Wearable antenna	10	NIL
24.	Ms.F.Jayasudha	M.E., (Ph.D)	Asst.Professor	Applied Electronics	08	NIL

S.No.	NAME OF THE FACULTY	QUALIFICATION	DESIGNATION	SPECIALIZATION	NO. OF YEARS OF EXPERIENCE	NO. OF Ph.D./ M.Tech (By Research) STUDENTS GUIDING FOR THE LAST 4 YEARS
25.	Mr.V.Balamurugan	M.Tech (Ph.D)	Asst.Professor	VLSI	10	NIL
26.	Ms.S.Ashalatha	M.E., (Ph.D)	Asst.Professor	Wireless sensor Network	08	NIL
27.	Ms.I.Mary Sajin Sanju	M.E., (Ph.D)	Asst.Professor	Applied Electronics	06	NIL
28.	Mr.L.Jegan Antony Marcilin	M.Tech (Ph.D)	Asst.Professor	Nano Electronics	06	NIL
29.	Dr.Y.Vardhamanan	M.E., Ph.D	Asst.Professor	VLSI	09	NIL
30.	Ms.S.Yogalakshmi	M.E.	Asst.Professor	Applied Electronics	04	NIL
31.	Ms.Umarani.P	M.Tech (Ph.D)	Asst.Professor	VLSI	03	NIL
32.	Ms.M.Devika	M.E., (Ph.D)	Asst.Professor	Embedded Systems	03	NIL
33.	Ms.G.I.Shamini	M.Tech (Ph.D)	Asst.Professor	VLSI	03	NIL
34.	Ms.S.Monisha	M.E.	Asst.Professor	Embedded Systems	03	NIL
35.	Mr.T.K.Ilayarajaa	M.E., (Ph.D)	Asst.Professor	Embedded Systems	03	NIL
36.	Mr.N.Mathan	M.Tech (Ph.D)	Asst.Professor	Low Power VLSI Design	03	NIL
37.	Ms.R.Sakthi Prabha	M.E.	Asst.Professor	Embedded Systems	03	NIL
38.	Ms.Mary Suma Laali.R	M.E.	Asst.Professor	Embedded Systems	03	NIL

S.No.	NAME OF THE FACULTY	QUALIFICATION	DESIGNATION	SPECIALIZATION	NO. OF YEARS OF EXPERIENCE	NO. OF Ph.D./ M.Tech (By Research) STUDENTS GUIDING FOR THE LAST 4 YEARS
39.	Mr.C.Karthik	M.Tech (Ph.D)	Asst.Professor	VLSI	03	NIL
40.	Ms.R.Arunya	M.Tech.	Asst.Professor	VLSI	03	NIL
41.	Ms.S.Pavithra	M.Tech.	Asst.Professor	VLSI	03	NIL
42.	Mr.M.A.Muthiah	M.E., (Ph.D)	Asst.Professor	VLSI	03	NIL

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors**

- Prof.Vijay.K.Varadan, Distinguished Professor of Electrical Engineering, University of Arkansas, USA.
- Mr. Prabhat Kumar, Project Director, BHAVINI, Department of Atomic Energy, Kalpakkam.
- Dr. Kalyanasundaram, Past President of ISNT, India,FRTG Director IGCAR, Kalpakkam.
- Dr. V. Rajendran, Head, Instrumentation and Control, NIOT, Chennai.
- Mr. G. Kannan, Former Scientist 'G', Additional Director (Robotics), CVRDE, DRDO, Avadi, Chennai.
- Dr.S.R.Ramanan, Director (Retd.) , (Scientist E) , ACWC, Regional Meteorological Centre, Chennai

13. **Percentage of classes taken by temporary faculty-programme –wise information** : NIL

14. Programme- wise Student Teacher ratio

By taking into account the subject handled by the faculty members of other departments into consideration, the teacher student ratio of the department is 1:15.

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual : 09

16. Research thrust areas as recognized by major funding agencies

Image Processing, Wireless Networks, VLSI and Embedded Systems.

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.E.Logashanmugam	Development of Digital Controller for AMB	IGCAR, Kalpakkam	2010	Rs.9.98 Lakhs	3 Years
2	Dr.E.Logashanmugam	Design of Single Pixel Camera	BRFST, Ahmedabad	2011	Rs.15.86 Lakhs	2 Years
3	Dr.E.Logashanmugam	Development of Analog to Information Converter	BRFST, Ahmedabad	2011	Rs.11.52 Lakhs	2 Years
4	Dr.E.Logashanmugam	Design of Long Pulse Integrator	BRFST, Ahmedabad	2011	Rs. 16.49 Lakhs	3 Years

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
5	Dr.E.Logashanmugam	Coherent communication systems using optical devices	TAPTEC, New Delhi		Rs.2.2 Lakhs	2 Years
6	Dr.B.Sheela Rani	Infrared Thermography for Monitoring and Rejuvenating temples,Rock Sculptures,Monuments and Traditional Buildings DST/SSTP/TN/11/141 dt 13-09-11	DST	Sep. 2011-12	13.03	1 Year (Completed)
7	Dr.B.Sheela Rani	Fusion Of IR Thermography And Visible Images Using Stockwell Transform IPR/NFP/2011/AUG/N/01	IPR, Gujarat	Aug 11 – Feb 13	22.73	Completed with A grade
8	Dr.B.Sheela Rani	Design of Neuro-Fuzzy Controller for Plasma Position Control in Aditya Tokamak IPR/NFP/2011/AUG/N/02	IPR, Gujarat		14.39	Completed with A Grade
9	Dr.B.Sheela Rani	Wavelet Analysis for Defect Characterization in Welded joints from Ultrasonic Signals and Radiographic Images	BRNS	Nov 11-14	24.97	Completed
10	Dr.B.Sheela Rani	Development of On-line monitoring system for preventing weld defects in Automated GTAW by infrared thermography and digital radiography SR/S3/ME/0048/2010 dated 18.1.2012	DST	Jan.2012-2014	25.97	Completed
11	Dr.N.M.Nandhitha	Design and fabrication of optical band-pass filter based on interference of thin films	Board Of Research In Fusion Science & Technology (BRFST)	2016-18	15.3525 lakhs	On going

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
12	Dr.E.Logashanmugam	Development of Image processing tools specific to Tokomac plasma Images	PFRC/BRNS Mumbai	2016-18	22.643Lakhs	Ongoing
13	Dr.B.Sheela Rani	Design of signal analysis techniques for determining the parameters responsible for plasma disruptions in Aditya Tokamak	Board Of Research In Fusion Science & Technology (BRFST)	2016-18	9.545 lakhs	Ongoing
14	Mrs.T.Jayanthi	Automation of Textile Loom	AICTE-TAPTEC		Rs.3.5 Lakhs	Completed
15	Mr.V.Hanumantha Rao.	Microwave based Leather classification	AICTE-TAPTEC		Rs.2 Lakhs	Completed
16	Dr.S.Lakshmi (Co-Investigator)	Development of Inversion Algorithm for Retrieval of Atmospheric parameters from Atmospheric Lidar data	ISRO Respond	Feb 2016	Rs.5.04 Lakhs	1 Year (Ongoing)
17	Mrs. B. Vijayalakshmi (Co-Investigator)	Study and development of algorithm for obstacle detection through 3D scene generation from 2D images(CVRDE)	CVRDE, DRDO		Rs.9.89 Lakhs	Completed
18.	Dr.G.Sundari (Prinicpal Investigator)	Hardware Design Implementation of Video CODEC for Low Bandwidth Radio Links	CVRDE, DRDO	Jan 2014	Rs.9.29 Lakhs	2 years (On going)

19.	Ms.P.Chitra (Co-Investigator)	Development of digitization and application of image processing and soft computing tools for evaluation of radiographic weld images	IGCAR, kalpakkam		Rs.5.32 Lakhs	2 Years Completed
Total					Rs.2,39,72,050	

18. **Inter-institutional collaborative projects and associated grants received** : NIL

a) National collaboration b) International collaboration

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Mrs.T.Jayanthi	Automation of Textile Loom	AICTE-TAPTEC		Rs.3.5 Lakhs	
2.	Mr.V.Hanumantha Rao.	Microwave based Leather classification	AICTE-TAPTEC		Rs.2 Lakhs	
3.	Dr.E.Logashanmugam	Coherent Communication systems using Optical Devices.	AICTE-TAPTEC		Rs.2.2 Lakhs	
Total					7.7 Lakhs	

20. **Research facility / centre with**

- State recognition
- National recognition : Centre for Ocean Technology
 Centre for Nanoscience and Nanotechnology
 Centre for Space Technology
 Centre for Advanced Electronic Testing
 Centre for NDE
- International recognition : NIL

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

S.No	* Name of the Equipment	Agency Sponsored / Industry
1	Mixed Signal Functional Test System	QMAX Test Equipments Limited
2	Advanced Combination Board Tester	QMAX Test Equipments Limited

Centre for Advanced Electronic Test Engineering in collaboration with QMAX Test Equipments Limited.

22. **Publications:**

Number of papers published in peer reviewed journals (national / international): 1129

- WEB OF SCIENCE JOURNALS - 21
- Monographs : Nil
- Chapters in Books: 4
- Edited Books: Nil
- Books with ISBN with details of publishers: Nil
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): Scopus – 513, WoS – 21
- Citation Index – range / average – 1 – 18 / 1.74
- SNIP – 0.04 – 1.47
- SJR – 0.11 – 0.53
- Impact Factor – range / average – 0.048 – 0.26 / 0.17
- h-index – 5

23. **Details of patents and income generated** : NIL

24. **Areas of consultancy and income generated**

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned
1	QMAX Test Equipments Limited	Training and Design of user friendly GUI In Circuit functional test module for Automatic Test Equipment	12 Lakhs
2	Sathyabama university & UGC	Training to faculties on 'Modern MOS technology- Tools and design'	2.2 Lakhs
3	Vikasa Electronics Limited, Chennai	Design and development of biometric systems	1.2 Lakhs

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : NIL26. **Faculty serving in**

a) National committees b) International committees c) Editorial Boards d) any other (please specify)

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
Dr.E.Logashanmugam	Journal on Intelligent Electronic System		Reviewer
	National Journal on Electronic Sciences and Systems		Reviewer
	International Journal of MC Square scientific Research		Reviewer

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
Dr.Sundari	American journal of networks and communications		Editorial member
	International Journal of Intelligent Information processing		Editorial member
	American journal of engineering & Applied sciences		Reviewer
	International journal of sensor and sensor networks		Reviewer
Dr.N.M.Nandhita	International Journal of Engineering Innovations and Research		Editorial member
	International Journal of Industrial Electronics and Electrical Engineering		Reviewer
Dr.K.V.Karthikeyan	IEEE International Conference on Circuit, Power and Computing Technologies – 2013		Reviewer /Program committee member

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
	Engineering Sciences and Technology-An international journal		Reviewer
Dr.S.Lakshmi	Journal of computer science		Reviewer
Dr.Ebenezer jebarani	American journal of Applied sciences		Reviewer
Dr.P.Chitra	American journal of Engineering and applied sciences		Reviewer
Dr.V.J.K.KISHOR SONTI	International Journal of Research in Science and Technology	International Journal of Research in Science and Technology	Editorial Board Member
	Scientific Journal of Microelectronics	Bowen Publishing	Reviewer
	American Journal of Applied Sciences	Science Publications	Reviewer
	Journal of Electrical	The Korean	Reviewer

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
	Engineering & Technology	Institute of Electrical Engineers	
	American Journal of Science and Technology	American Journal of Science and Technology	Editorial Member and Reviewer
	Sixth International Conference on Electronics, Communications and Networks (CECNet 2016)		Reviewer
Dr.S.Karthikeyan	Computer Methods and Programs in Biomedicine	Elsevier	Reviewer
	Journal of Intelligent Systems		Reviewer
	Wireless Sensor Network	Scientific Research	Reviewer
	American Journal of Applied Sciences		Reviewer
	Third international conference on software engineering and Application		Reviewer /Program committee member

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
	International Journal of Engineering Systems Modeling and Simulation	Inderscience Publishers	Reviewer in Scopus indexed Journal
	Fifth International Conference on Wireless & Mobile Networks		Reviewer /Program committee member
	Fourth International Conference on Peer-to-Peer Networks and Trust Management		Reviewer /Program committee member
	International Journal of Computer Networks & Communications	AIRCC Publishing Corporation	Reviewer
Dr.S.Karthikeyan	International Journal of Network Security & Its Applications	AIRCC Publishing Corporation	Indian Journal of Science and Technology
	First International workshop of Security, Privacy and Trust Management		Reviewer /Program committee member
	First International workshop of Networks and Communications		Reviewer /Program committee member

Name of the Faculty	Name of the Journal / Conferences	Publisher	Reviewer/Editor
	Indian Journal of Science and Technology	Indian Society for Education and Environment.	Indian Journal of Science and Technology
	First International Conference on Artificial Intelligence and Applications		Program Committee Members
	IEEE International Conference on Circuit, Power and Computing Technologies		Reviewer
Mr.N.Mathan	International Conference on Advances in Computing, Communications and Informatics		Reviewer

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S.No	Date	Name of the Program	Topic/Organizer
1.	12-04-2014, 13-04-2014 and 16-04-2014	Self Development Program	University counsellor, Sathyabama University

S.No	Date	Name of the Program	Topic/Organizer
2.	08-01-2014 to 10-01-2014	Engineering Applications of MATLAB	Department of CSE , Sathyabama University
3.	07-03-2013	Financial literacy	Dept of Management studies, Sathyabama University
4.	20-03-2013	VHDL	Tamil Nadu College of Engg
5.	08-08-2013 to 10-08-2013	Recent Trends in Wireless Networking and Communication Engineering	School of Electronics Engineering, VIT Chennai.
6.	09-01-2013 to 11-01-013	Image Processing using MATLAB-Level-1	Dept of CSE,Sathyabama University
7.	27-06-2013, 28-06-2013	Wireless sensor networks	Sathyabama University
8.	06-03-2013, 07-03-2013	Wireless sensor networks	Sathyabama University
9.	13/12/2013	Faculty development programme on Art of investing in stock markets	Department of Management studies, Sathyabama University
10.	26/9/2013 & 27/9/2013	Advanced Industrial Automation and Machine Vision using labview	Department of E&I in association with National Instruments and ISA, Jeppiaar Engineering College, Chennai.
11.	08-06-2012 to 09-06-2012	VLSI	Anna university, Chennai
12.	22-09-2012	Image Processing using Matlab	Dept of EIE, Sathyabama University
13.	19-04-2012 to 21-04-2012	Trends in information technology	MIT,Chennai

S.No	Date	Name of the Program	Topic/Organizer
14.	19-02-2011 to 20-02-2011	Research methods	Anna University, Chennai ,conducted by IEEE & PCS
15.	2011	RASDAT 2011	IIT
16.	12-05-2011	Research Issues in Embedded System Desigh and Digital Signal Processin using FPGA	Anna University, Madurai campus conducted by Enix Technologies, Trichy
17.	11-06-2011 to 12-06-2011	Wireless Networking	Sathyabama University
18.	27-07-2011 to 28-07-2011	Simon, qca, quantum wise, pic	Sathyabama university
19.	14 th March, 2011	MATLAB & Simulik for Engineering Education	Mathsworks India, Chennai
20.	1 ST – 3 rd , Dec. 2011.	Applications of Advanced Signal/ Image Processing for Quality Assurance In Food Processing Industry by Imaging Techniques	Sathyabama University
21.	2011	RASDAT 2011	IIT Madras
22.	20-08-2010 to 22-08-2010	Hands on training on analog- mixed signal and digital design using cadence tools	ICT Academy of Tamilnadu & Cadence
23.	24-02.2010	Recent advances in aerospace propulsion technology	The aeronautical society of India, Chennai branch & Sathyabama university
24.	7 th -8 th Oct. 2010	VLSI design methodology and tools	Sairam Engineering college

S.No	Date	Name of the Program	Topic/Organizer
25.	Aug. 2010	Recent trends in wireless networks	SRM university
26.	Nov. 2010	Intel Suite for designing MEMS components and components	SRM University
27.	2010	Full custom IC design	VIT university
28.	2010	Educators day	National Instruments
29.	2010	Embedded system design using PIC microcontroller	Sathyabama university
30.	21 st Dec. 2009	International Workshop on Recent trends in microwave and optical communication technologies	SRM university
31.	15 th Dec. 2009.	Semiconductors: Micro to Nano	SSN college of Engineering
32.	08-10-2009 to 09-10-2009	VLSI & embedded systems	SRM university
33.	4 th & 5 th March 2010	Digital signal processing system design	ICT Academy of Tamilnadu
34.	4 th -5 th Dec 2009	FDP on Modern teaching methods and research in engineering and technology	Sathyabama university
35.	30 th - 31 st May, 2009	Technical teachers quality improvement	Consortium of self-financing professional, arts & science colleges in Tamil Nadu
36.	24 -06-2009	Emerging scenarios in maintenance of heavy aircrafts	The aeronautical society of India, Chennai branch & Sathyabama university

S.No	Date	Name of the Program	Topic/Organizer
37.	August 2009	Applications of MEMS in Instrumentation Engineering	SRM University
38.	Dec. 2009	Recent Advances in Microwave and Optical Communication Technology	SRM University
39.	22-10-2009 to 24-10-2009	National workshop on Applications of logic (NAWAL -2009)	Sathyabama university, Sponsored by CSIR
40.	27 th & 28 th Feb. 2009	Application Technology and Research Trends In Underwater Communication	SSN College of Engineering
41.	2009	Educators day	National Instruments
42.	14 th -15 th , 2009	Semiconductors: Micro to Nano	SSN college of engineering
43.	4 & 6 August 2008	Recent Trends and Emerging Scenario in Biomedical Engineering	Sathyabama university
44.	18 August 2008	FDP on Image processing and neural networks	Karpaga Vinayaga college of Engineering
45.	August 2008	DSP,VLSI and EMBEDDED SYSTEM DESIGN	SRM University
46.	22 nd Sep. 2008	VLSI design, Verification and Testing	SSN College of engineering
47.	4 th -9 th August 2008	Quality improvement programme on 'Bio-medical electronics'	NITTTTR
48.	29 th - 30 th Jan 2008	High Impact presentation skills	WIPRO & Dale Carnegie training

S.No	Date	Name of the Program	Topic/Organizer
49.	2008	ASIC design and MATLAB based EDA tools	Easwari engineering college
50.	2008	Sensor web enablement	Sathyabama university
51.	19 th -21 st July 2007	Nuclear energy for national development and environmental sustainability	IGCAR
52.	2007	DSP FPGA based systems	SRM University
53.	30 th -31 st March 2007	Introduction to Nanotechnology	Anna university

28. **Student projects**

- Percentage of students who have done in-house projects including inter- departmental projects : 96%
- Percentage of students doing projects in collaboration with other universities/industry / institute : 4%

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		4	-
Students	(Extra / Cocurricular)	9	-
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
1.	Place Yourself Placed – Orientation for Final Year Students	13.06.2016	Sathyabama University	Dr. V. J. K. Kishore Sonti, Assistant Professor, Department of ECE, Sathyabama University, Chennai.
2.	BE in B.E. - Beyond Expectations in Bachelor of Engineering	11.04.2016	Sathyabama University	Dr. V. J. K. Kishore Sonti, Assistant Professor, Department of ECE, Sathyabama University, Chennai.
3.	Smart Grid - Revolutionizing our Energy Future	07.04.2016	Sathyabama University	Dr. N. Kumarappan, Professor, Electrical Engineering, Faculty of Engineering and Technology, Annamalai University, Chidambaram .
4.	FOOD quality inspection using vision and spectral techniques	05.04.2016	Sathyabama University	Dr. A. Gopal Senior Principal Scientist, CSIR-CEERI, Chennai.
5.	Embedded Computing Hardware acceleration with FPGA	01.04.2016	Sathyabama University	Mr. Ramanathan SP Senior Software Engineer, Qualcomm, Chennai.
6.	Optical sensors and imaging for non-destructive industrial measurements	30.03.2016	Sathyabama University	Dr. R. Govindraj Senior Principal Scientist, CEERI Centre, CSIR, Madras Complex, Chennai.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
7.	FPGA	11.08.2015	Sathyabama University	Mr. Ramanathan SP Senior Software Engineer, Qualcomm, Chennai
8.	NANO Materials and Science	06.08.2015	Sathyabama University	Dr. Tom Mathews Scientific Officer (SO/G), Surface and Nanoscience Division, Materials Science Group, Indira Gandhi Centre for Atomic Research, Kalpakkam – 603 102, TN, INDIA
9.	DSPs and Digital Audio Compression	06.08.2015	Sathyabama University	Mr. A. Senthil Director Automotive, Jasmin Infotech Pvt Ltd., Pallikaranai, Chennai.
10.	SIGNALLING IN RAILWAYS	05.08.2015	Sathyabama University	Mr. D. Venkatachalam Dy Chief Signal and Telecommunication Engineer, Southern Railway, Indian Railways, Chennai.
11.	Neuromorphic Microchips	20.03.2015	Sathyabama University	Dr. N. Kumarappan Professor, Electrical Engineering, Faculty of Engineering and Technology, Annamalai University.
12.	Broadband Antenna	13.03.2015	Sathyabama University	Ms. A. Uma mageswari Prof & Head, Dept of ECE, VRS College of Engg & Technology, Arasur, Villupuram.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
13.	Approach to pursue higher studies overseas	02.02.2015	Sathyabama University	Ms. Claire Doran, International Officer – Maynooth University, Ireland.
14.	SIGNALLING IN RAILWAYS	04.08.2014	Sathyabama University	Mr. D. Venkatachalam
15.	APPLICATION OF VLSI IN INDUSTRY	04.08.2014	Sathyabama University	Mr. SaravananVeeraraghavan
16.	PERCEPTION LISTENING	14.08.2014	Sathyabama University	Dr. V.J.K. Kishore Sonti
17.	How to Think about your Career	18.08.2014	Sathyabama University	Mr. Santhosh
18.	ELECTRONICS - AN ALL TIME PERSPECTIVE	19.08.2014	Sathyabama University	Mr. G. Kannan
19.	Basics of Field Theory & DSP and its applications	22.08.2014	Sathyabama University	Dr. P. Kalyanasundaram
20.	Latest Trend in Embedded System	24.09.2014	Sathyabama University	Mr. Raghunathan
21.	Exploring the technology behind unmanned tanks	01.11.2014	Sathyabama University	Dr. P. Sivakumar
22.	SQUARE ONE	01.11.2014	Sathyabama University	PRAGYAN'15
23.	Embedded System	12.09.2014	Sathyabama University	Mr. Purushothaman
24.	Video Coding Standards in Image Processing	08.10.2013	Sathyabama University	Mr. J. Manikandan

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
25.	Applications of Communication Enabled Systems	10.09.2013	Sathyabama University	Mr. G. Kannadasan
26.	Recent Developments in Wireless Information Technology	13.08.2013	Sathyabama University	Mr. P. Suresh
27.	Testing Methodologies in VLSI Circuits	03.07.2013	Sathyabama University	Mr.C.Ravi Tej
28.	Embedded Systems for Industrial Applications	07.06.2013	Sathyabama University	Mr.Swaminathan, Director, Vikasa Electronics, Chennai
29.	Recent Trends in Embedded Systems and it Application	27.6.2013	Sathyabama University	Dr. T.G. Venkatesh, IIT, Chennai
30.	13th National Conference on Emerging Trends in VLSI, Embedded and Nano Technology	27.6.2013 to 28.6.2013	Sathyabama University & IEEE Electron devices Society	Dr.T.G. Venkatesh, IIT, Chennai
31.	Summer camp titled "Matlab and VHDL programming for Image Processing	2.5.2013 to 4.5.2013	Sathyabama University	-
32.	One day National level workshop on Image Processing in VLSI	26.3.2013	Sathyabama University	-
33.	Application of ARM 9 ARM 10 embedded processor for Industries	22.02.2013	Sathyabama University	Ms. Sundarajan, Chennai Port, Chennai.
34.	Zonal level Competition of National Robotics Championship, NRC 2012	5.2.2013 to 6.2.2013	Sathyabama University	ARC Technologies, New Delhi
35.	Application of FPGA in digital signal Processing	11.10.2012	Sathyabama University	Mr. Prabu, Vee Eee Technology, Chennai.
36.	FPGA Based Embedded System	31.07.2012	Sathyabama University	Mr. Manikandan, HCL Private Ltd, Chennai.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
37.	Entrepreneurship Program	24.07.2012	Sathyabama University	Ms. Sumathy Srinivas, CEO, Twilitecreations Ltd, Chennai.
38.	Entrepreneurship Program	23.07.2012	Sathyabama University	Mr.G. Sridharan, CEO, Vertex Systems, Chennai.
39.	Embedded System and Robotics	18.07.2012 & 20.07.2012	Sathyabama University	Mr. Kishore, ERP Solutions, Chennai.
40.	Real Time Filter Implementation	10.07.2012	Sathyabama University	Mr. T.G.Subash Kumar, Jasmine Infotech, Chennai.
41.	Improving the communication skills	22.06.2012 to 25.06.2012	Sathyabama University	Dr. Jayanthi Srivardhan, Academic Consultant for the Indian Education Trust, Chennai.
42.	12th National Conference on Emerging Trends in VLSI, Embedded and Nano Technology	15.3.2012 to 16.3.2012	Sathyabama University & IEEE Electron devices Society	-
43.	Mobile Communication	29.07.2011	Sathyabama University	Mr. Saravanan, Vestel Telecom Services
44.	Wireless Sensor Networks	14.07.2011	Sathyabama University	Mr. B. Venkatraman, V.B. Microsystems.
45.	Embedded system design using PIC microcontroller	08.07.2011 to 09.07.2011	Sathyabama University	M/S Vikasha Electronics Pvt.Ltd., Chennai.
46.	Processing of Medical Images	22.06.2011	Sathyabama University	Dr. P. Vigneshwaran, SRM University, Chennai.
47.	Trends in Embedded System	27.01.2011	Sathyabama University	Dr. T. G. Venkatesh, School of EEE, IIT Madras, Chennai.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
48.	11th National Conference on Emerging Trends in VLSI, Embedded and Nano Technology	27.01.2011 & 28.01.2011 2 days	Sathyabama University & IEEE Electron devices Society	-
49.	Electronics in Minerals	15.07.2010	Sathyabama University	Mr. Bobby Gabriel, FLSmith Pvt. Ltd., Chennai.
50.	Applications of Electronics in Industry	18.06.2010	Sathyabama University	Ms. Magdelin Sona, Infosys, Chennai
51.	Mobile Computing	25.03.2010	Sathyabama University	Dr. T. G. Venkatesh, School of EEE, IIT Madras, Chennai.
52.	Antennas and its applications	20.02.2010	Sathyabama University	Dr. T. Jayanthi, Panitech Institute of Science and Technology.
53.	Recent Applications of Electronics	21.01.2010	Sathyabama University	Dr. I Ayyappan, Bharathiyar College of Engineering, Karaikal.
54.	Microcontroller and its Industrial Applications	08.07.2009	Sathyabama University	Mr. M. S. Swaminathan, Director, Vikasha Electronics Madras Pvt. Ltd, Chennai.
55.	Trends in Cellular and Mobile Communication	24.06.2009	Sathyabama University	Mr. R. Venkatraman, Managing Partner, V.B. Microsystems, Chennai
56.	Emerging Trends in VLSI	14.06.2009	Sathyabama University	Mr. Ramesh, NViKIA Corporation, California, USA.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding Participants *
57.	Satellite Communication	02.03.2009	Sathyabama University	Dr. P. Dhananjayan, Professor, PEC, Pondichery.
58.	Real Time Operating System and SOC Design	10.02.2009	Sathyabama University	Dr. R. Seshasayanan, Professor, Anna University, Chennai.
59.	Fundamental Advances in Cyber-Tool and Cyber-Environments for Bridging Research and Education	04.04.2008	Sathyabama University	Dr. Krishna P.C. Madhavan, Assistant Professor, Clemson University, USA.
60.	Antennas and its Applications	15.03.2008	Sathyabama University	Dr. T. Jayanthi, Professor
61.	Circuit Design Concepts	20.12.2007	Sathyabama University	Dr.P.E. Sankaranarayanan,
62.	Microstrip Antenna Design	11.10.2007	Sathyabama University	Mr. J. Srinivasan, SICO Instruments

31. Code of ethics for research followed by the departments

- Plagiarism should not be practiced in the publications and most importantly in thesis writing.
- Plagiarism detection software like Turnitin should be made use of before submission of thesis.
- Papers should be published in reputed journals and conferences conducted by premier universities only.

32. Student profile programme-wise:

Table: A

Name of the Programme (refer to question 4)	Application received	Selected	
		Male	Female
B.E –E.C.E I Year	8051	559	101
B.E –E.C.E II Year	7824	446	123
B.E –E.C.E III Year	7553	271	99
B.E –E.C.E IV Year	7462	216	84
M.Tech VLSI Design – II Year	12	NIL	07
M.E Embedded Systems – I Year	15	03	08
M.E Embedded Systems – II Year	18	05	08

Table B: University Results

Name of the Programme (refer to question 4)	Pass Percentage in University (as on APR 2016)	
	Male	Female
B.E –E.C.E I Year	-	-
B.E –E.C.E II Year	83.44	94.26
B.E –E.C.E III Year	66.05	97.98
B.E –E.C.E IV Year	61.32	85.41
M.Tech VLSI Design – II Year	NIL	100
M.E Embedded Systems – I Year	--	--
M.E Embedded Systems – II Year	100	100

Part-time courses:

Table A: Student Strength

Name of the Programme (refer to question 4)	Application received	Selected	
		Male	Female
B.E – E.C.E(Jan 2013)	165	68	13
B.E – E.C.E(June 2013)	92	32	12
B.E – E.C.E(Jan 2014)	77	26	08
B.E – E.C.E(June 2014)	52	18	08
B.E. – ECE (Jan 2015)	31	14	02
B.E. – ECE (June 2015)	41	18	05
M.Tech VLSI Design (2013)	31	07	10
M.Tech VLSI Design (2014)	26	05	08

Table B: University Results (as on APR-16)

Name of the Programme (refer to question 4)	Pass Percentage	
	Male	Female
B.E – E.C.E(Jan 2013)	62.9	50.00
B.E – E.C.E(June 2013)	27.5	44.44
B.E – E.C.E(Jan 2014)	14.28	33.33
B.E – E.C.E(June 2014)	30.76	42.85
B.E. – ECE (Jan 2015)	35.71	Nil
B.E. – ECE (June 2015)	27.77	40.00
M.Tech VLSI Design (2013)	85.71	80.00
M.Tech VLSI Design (2014)	40.00	50.00

33. Diversity of students:

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Tech VLSI Design – II Year	28.57	42.85	28.57	-
M.E Embedded Systems – I Year	30	40	30	-
M.E Embedded Systems – II Year	NIL	69.23	30.76	-

Part-time courses:

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Tech VLSI Design (2014)	-	100	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Civil Services – NIL
 Defense Services – NIL
 NET – NIL
 SET – NIL
 GATE - NIL

S.NO	Name of the Examination	2007-11	2008-12	2009-13	2010-14	2011-15
1.	GRE	08	09	12	14	09
2.	TOFEL	04	07	06	12	06
3.	GMAT	-	-	01	-	-
4.	IELTS	03	03	08	05	06
5.	CAT	-	-	-	-	-
6.	OTHERS	05	09	11	05	

35. Student progression

Student progression	Percentage against enrolled
UG to PG	3.16 %
PG to M.Phil.	-
PG to Ph.D.	14 %
Ph.D. to Post-Doctoral	-
Employed	B.E. E.C.E. - 95.8 % (2013-14)
• Campus selection	B.E. E.C.E. - 97.46 % (2014-15)
	B.E. E.C.E. - 96.02 % (2015-16)
	M.E Embedded – 82.86 % (2013-14)
	M.E Embedded – 80 % (2014-2015)
	M.E Embedded – 85.71 % (2015-2016)
	M.Tech VLSI – 86.11% (2013-2014)
	M.Tech VLSI – 82.14 % (2014-2015)

Student progression	Percentage against enrolled
<ul style="list-style-type: none"> Other than campus recruitment 	M.Tech VLSI – 85.71 % (2015-2016) B.E E.C.E – 70 % (2013-2014) M.E Embedded – 8.75 % (2013-2014) M.E Embedded – 10 % (2014-2015) M.Tech VLSI – 83.3 % (2013-2014) M.Tech VLSI – 10.71 % (2014-2015)
Entrepreneurs	-

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	78.57%
from other universities within the State	21.43%
from universities from other States	-
from universities outside the country	-

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : 15

38. Present details of departmental infrastructural facilities with regard to

a) Library

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
29626	NIL	Rs.7526495

b) Internet facilities for staff and students : Nearly 150 systems with internet facility for staff and students

c) Total number of class rooms : 25

d) Class rooms with ICT facility : One

e) Students' laboratories and Research laboratories

S. No.	Name of the Lab	Area (in sq.ft)	Cost (in Lakhs)
1	VLSI Design Lab	4500	20.01 Lakhs
2	DSP Lab	3000	6.20 Lakhs
3	Microwave and Optical Lab	3000	21.7 Lakhs
4	Embedded Systems Lab	2000	18.07 Lakhs
5	Communication lab	6000	24.80 Lakhs
6	Electronic Devices Lab	3600	31.80 Lakhs
7	Computing and Simulation Lab	7920	47.73 Lakhs
8	Integrated Circuits Lab	5500	23.70 Lakhs
9	Advanced Test Engineering (Research) Laboratory	1500	52 Lakhs

39. List of doctoral, post-doctoral students and Research Associates

- a) from the host institution/university : 37
- b) from other institutions/universities : 108

40. Number of post graduate students getting financial assistance from the university.

NIL

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

The inception of the new course is done with the deliberate consultations with the industry and alumini through placement cell.

42. Does the department obtain feedback from

a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Faculty are the members of Board of Studies meeting , whose suggestions will be taken into consideration in finalizing the syllabus of that subject in discussion with the industry and expert.

b. Students on Staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Systematic feedback through teacher evaluation by students at the end of each academic semester helps the department to enhance the teaching learning process. The feedback which is collected in the prescribed formats is consolidated by the Head of the Department and a Confidential Report is prepared. The staff member is given guidance and counseling for improvement by the senior and HOD of the department. If necessary, staff members are sent for training.

c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Employer's feedback will be taken from placement cell and is used in planning the student development programmes. Alumni feedback is also taken into consideration in finding the training needs of the department to students.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Degree	Year of Passing	Present Employee	Designation
1.	Navnit Kashyap	M.Tech, VLSI Design	2007	Cadence technologies, Bengaluru	Senior Design and Verification Engineer
2.	Pramod Gayalkar	M.Tech (VLSI Design)	2011	Sasken Communication Technologies, Bengaluru	Verification Engineer
3.	Dayakar Posina	M.Tech (VLSI Design)	2009	Beroe Inc, Chennai	Senior Domain Lead, Market Research
4.	Padmanaban Subramanian	M.Tech (VLSI Design)	2009	Sankalp Semiconductor Pvt. Ltd., Bengaluru	Senior Layout Designer
5.	Reema Menao	B.E.	2009	Calsoft Labs (India) Pvt. Ltd., Bengaluru	QA Engineer
6.	Pradeep Sai Ramisetty	M.Tech (VLSI Design)	2009	IBM, Hyderabad	Technical Services Specialist (Linux)
7.	Ashim Jolly	B.E.	2008	SnapLion.com (instant app builder); Serial entrepreneur, United Arab Emirates)	Senior Vice President
8.	Biswajit Sadhu	B.E.	2007	Infinera R&D - Software Division., Bengaluru	Lead Software Development Engineer
9.	Nikunj Agarwal	B.E.	2007	JDA Software, Bengaluru	Sr.Business Consultant (eCommerce & WMS)
10.	Sarath Chandra	M.Tech (VLSI Design)	2007	Camera Products at e-con Systems, Chennai	Project Leader
11	Kamal Narendran Menon	B.E.	2007	Flytxt Mobile Solutions Pvt. Ltd., Cochin	Associate. Technical Project Manager

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lecture	37
Workshops	06
Seminars	3

45. **List the teaching methods adopted by the faculty for different programmes.**

OHP, LCD Projectors and other facilities are made available to the faculty. Charts are used if necessary. Besides regular classroom learning and innovative teaching methods, Field trips, Industrial visits, In-service training and working at the Industrial units provide a taste of real life situation. The staff members are not only explaining the problems in the classroom but also adopt a few other conducive methods to make the students understand. A few minutes in every hour is allotted for question-answer session in which the students get their doubts cleared.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The meeting of the members of the Department is held periodically. The problems faced by the teachers inside and outside the classrooms are discussed in the meeting. The academic performance of the members is also monitored. The senior faculty members give counseling to the junior staff members on all academic matters.

47. **Highlight the participation of students and faculty in extension activities.**

- Students are encouraged to be a part of University NCC and NSS.
- Students also actively participate in Blood Donation camps conducted by university.
- Students and Staff actively participate in Cultural and Sports events conducted by university.
- Students are encouraged to go for inplant training in various industries like ALL INDIA RADIO, BSNL, AAI, and BHEL.
- Mathmind, System and VLSI Design in ROBOTICS.

48. **Give details of “beyond syllabus scholarly activities” of the department.**

- Every student is asked to complete a mini project
- Students are encouraged to present technical papers in symposiums and conferences.
- Department students are participating in the design of onboard communication system of “SATHYABAMA SAT”.

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- NBA Accreditation with A Grade for a period of 5 years
- Declared as category 'A' University by the task force appointed by MHRD, Govt of India,
- ISO 9001:2008.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Student and Staff of the department are instrumental in the grand success of "Sathyabama Sat", which was personally appreciated by the Prime Minister of India.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths:

- Collective Work Culture
- Time bound Activities
- Planning and Execution of the work with Pragmatic outlook
- Individual interest in the development and updating of the knowledge reflects in the progress of the department.

Opportunities:

- Campus recruitment from a spectrum of companies belongs to IT as well as Core industries.

Challenges:

- To bring at least five more funded project from various funding Agencies.
- To have more Scopus indexed/ refereed Journals which lead to patents.
- To achieve 100 % Placement for all registered eligible students.

52. **Future plans of the department.**

- To develop the department as the epicentre of the research activity in the university.
- To encourage the Faculty and students in publications and innovative projects.
- To develop a research lab facility for staff as well as students.
- To make all the staff members with Ph.D qualification.

Department of Electronics and Telecommunication

1. **Name of the Department** : Department of Electronics and Telecommunication Engineering
2. **Year of establishment** : 2003
3. **Is the Department part of a School/Faculty of the university?**
Yes, School of the University – School of Electrical and Electronics Engineering
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
 - UG** : 4 Years B.E. Degree Programme in Electronics and Telecommunication Engg.
 - PG** :
 - i. 2 Years M.E. Degree Programme in Applied Electronics
 - ii. 2 Years M.E. Degree Programme in Communication Systems
 - iii. 3 Years M.E. Degree (Part Time) Programme in Applied Electronics
 - Research** :
 - i. M.Tech. (By Research)
 - ii. Ph.D.
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : NIL
7. **Details of programmes discontinued, if any, with reasons** : NIL
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**
Semester and Absolute credit based system

9. Participation of the department in the courses offered by other departments

Name of the Subject	Name of the Department to which the Course is offered
Electronic Circuits – I	Electronics and Communication Engineering
Signals and Systems	Electronics and Communication Engineering
Probability Theory and Random Process	Electronics and Communication Engineering
Microwave Engineering	Electronics and Communication Engineering
Computer Communication	Electronics and Communication Engineering
Digital Communication	Electronics and Communication Engineering
Microcontroller and Embedded Systems	Electronics and Communication Engineering
Mobile Adhoc Networks	Electronics and Communication Engineering
Transmission Lines & Waveguides	Electronics and Communication Engineering
Optical Communication	Electronics and Communication Engineering
Electronic Devices	Computer Science and Engineering
Fundamentals of Digital Systems	Computer Science and Engineering
Principles of Communication	Computer Science and Engineering
Principles of Digital Signal Processing	Computer Science and Engineering
Microprocessor & Microcontroller Based Systems	Computer Science and Engineering
Microprocessor & Microcontrollers	Mechanical Engineering & Automobile Engineering
Telecommunication Switching Systems	Information Technology
Basic Analog and Digital Communication	Information Technology
Information Theory Coding	Information Technology

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	02	02
Associate professors	08	08
Assistant Professors	26	26
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No.	Name	Qualification	Designation	Specialization	No of years of experience		No. of Ph.D./ M.Tech (By research) students guiding for the last 4 years
					Teaching	Industry	
1	Dr.V.Vijaya Baskar	M.E., Ph.D.	Professor	Signal Processing & Embedded Systems	16	-	5
2	Dr. M.S.Godwin Premi	M.E., Ph.D.	Professor	Wireless Networks, Image Processing	17	-	8
3	Dr. M. Vadivel	M.E., Ph.D.	Associate Professor	Wireless Communication	13.5	-	4
4	Dr. Rekha Chakravarthi	M.E., Ph.D.	Associate Professor	WSN, Neural Networks	12.5	-	5
5	Dr.S.Maflin Shaby	M.E., Ph.D.	Associate Professor	MEMS	12.5	-	5

S. No.	Name	Qualification	Designation	Specialization	No of years of experience		No. of Ph.D./ M.Tech (By research) students guiding for the last 4 years
					Teaching	Industry	
6	Dr. N.Prabakaran	M.E., Ph.D.	Associate Professor	Wireless Signal Processing	12	-	4
7	Mr. K. Dayanandhan	M.E., (Ph.D.)	Associate Professor	Applied Electronics	13.5	9.5	-
8	Mr. T. Stephen John	M.E.	Associate Professor	Applied Electronics	14.5	-	-
9	Mr. V. Vedanarayanan	M.E., (Ph.D.)	Associate Professor	Image Processing	13	-	-
10	Mr. P.D Selvam	M.E.,M.S.	Associate Professor	Mobile Communication	13	-	-
11	Dr. V.Ganesan	M.E., Ph.D.	Assistant Professor	VLSI	9.5	-	7
12	Mrs.S.Kuzhaloli	M.E., (Ph.D.)	Assistant Professor	Computer Communication	12	-	-
13	Mrs. S. Kamatchi	M.E., (Ph.D.)	Assistant Professor	Signal Processing	12	-	-
14	Mr.S.Rajasekaran	M.Tech., (Ph.D.)	Assistant Professor	Nano Devices	12	-	-
15	Mr. S.Siva Sundara Pandian	M.Tech., (Ph.D.)	Assistant Professor	Microwave & Antennas	12	-	-
16	Mrs.G.Merlin Sheeba	M.E., (Ph.D.)	Assistant Professor	Wireless Mesh Networks	10.5	-	-

S. No.	Name	Qualification	Designation	Specialization	No of years of experience		No. of Ph.D./ M.Tech (By research) students guiding for the last 4 years
					Teaching	Industry	
17	Mrs. Z.Mary Livinsa	M.E., (Ph.D.)	Assistant Professor	Wireless Sensor Networks	8.5	-	-
18	Mrs. D.Jyothi Preshiya	M.E., (Ph.D.)	Assistant Professor	Wireless Networks	8.5	-	-
19	Mrs. G.Mary Valantina	M.E., (Ph.D.)	Assistant Professor	Wireless Networks	9.5	-	-
20	Mr. S. Raja	M.E.	Assistant Professor	Applied Electronics	7	-	-
21	Mr. A. Aranganathan	M.Tech., (Ph.D.)	Assistant Professor	Mobile AdHoc Networks	9.5	-	-
22	Mr. E. Rajinikanth	M.E., (Ph.D.)	Assistant Professor	Wireless Networks	8.5	-	-
23	Mr. T. Arul Kumaran	M.E., (Ph.D.)	Assistant Professor	Image Processing	8	-	-
24	Mrs. T. Anna Sudha	M.E.	Assistant Professor	Applied Electronics	6.5	-	-
25	Mr. N. Meenakshi Sundaram	M.E., (Ph.D.)	Assistant Professor	Applied Electronics	5	-	-
26	Mrs.B. Priyadarshini	M.E., (Ph.D.)	Assistant Professor	Applied Electronics	3.5	-	-

S. No.	Name	Qualification	Designation	Specialization	No of years of experience		No. of Ph.D./ M.Tech (By research) students guiding for the last 4 years
					Teaching	Industry	
27	Mrs. V.Leena Nangai	M.E., (Ph.D.)	Assistant Professor	Applied Electronics	3.5	1.5	-
28	Ms. V.Jino Shiny	M.E.	Assistant Professor	Applied Electronics	4.5	-	-
29	Mr.P.Rajkumar	M.Tech., (Ph.D.)	Assistant Professor	VLSI Design	3.5	1.5	-
30	Mr.G.Sajiv	M.E., (Ph.D.)	Assistant Professor	Electronics & Control	3.5	-	-
31	Mrs.T.Bernatin	M.E., (Ph.D.)	Assistant Professor	VLSI Design	3.5	-	-
32	Mrs.Anuradha Chandirasekaran	M.E.	Assistant Professor	Communication Systems	7	-	-
33	Ms. T. Gomathi	M.Tech. (Ph.D.)	Assistant Professor	Wireless Communication	9	-	-
34	Mr. L. Megalan Leo	M.E., (Ph.D.)	Assistant Professor	Image Processing	4.5	-	-
35	Ms. V.Manju	M.E., (Ph.D.)	Assistant Professor	Applied Electronics	2.5	-	-
36	Mrs. S.Poonguzhali	M.E., (Ph.D.)	Assistant Professor	Applied Electronics	3	-	-

12. **List of senior visiting fellows, adjunct faculty and emeritus professors**

- Dr.V.S.Hedge, Scientific Seceratory/Director, Indian Space Research Organization(ISRO), Bangalore
- Dr.V.A.Ragahavamurthy, Project Director, Small Satellite Systems, Indian Space Research Organization (ISRO), Bangalore
- Dr.B.S. Murthy, Professor, IIT Chennai
- Dr P.Dhananjyan,Chairman CBCS, Professor,Department of ECE, Pondicherry engineering College, Puducherry
- Dr.R.Gunasundari, Assistant Professor, Department of ECE, Pondicherry engineering College, Puducherry
- Dr.M.Madhavi Latha, Professor,Department of ECE, Jawaharlal Nehru Technological University,Hyderabad
- Dr.M.Arumugam , Founder & CEO, Broadkline Technologies Ltd,Chennai
- Mr.S.R. Sabapathi, Managing Director, Q Max Test Equipments Pvt Ltd., Chennai
- Dr. Ram Bilas Pachori, IIT, Indore
- Dr.D.M.Selvaraj, IIIT, Kancheepuram, Chennai
- Dr.Arthanareeswaran, Associate Professor, National Institute of Technology, Trichy
- Mr.C.D.Sridhara, Former Deputy Director, ISRO
- Dr.M.M.Nayak, Visiting Professor, Centre for Nanoscience and Engg., IISc, Bangalore

13. **Percentage of classes taken by temporary faculty-programme –wise information** : Nil

14. **Programme- wise Student Teacher ratio**

By taking into account the subjects handled by the faculty members of other department
Staff - Student ratio **1:15**

15. **Number of academic support staff (technical) and administrative staff** :

Sanctioned : 5
Filled : 5
Actual : 5

16. **Research thrust areas as recognized by major funding agencies**

- Wireless Communication
- Mobile Adhoc Networks, Sensor Networks
- Signal Processing
- Image Processing
- MEMS/VLSI
- Microwave Devices & Antennas

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S. No.	Name of Principal Investigator & Co-Investigators	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.E.Logashanmugam – PI Dr.V.Vijayabaskar – CI-1 Dr.M.S.Godwin Premi – CI-2	Development Image Processing Tools Specific to Tokamak Plasma Images	BRNS	2016	22.64	2 years

18. **Inter-institutional collaborative projects and associated grants received** : Nil

- a) National collaboration b) International collaboration

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.E.Logashanmugam – PI Dr.V.Vijayabaskar – CI-1 Dr.M.S.Godwin Premi – CI-2	Development Image Processing Tools Specific to Tokamak Plasma Images	BRNS	2016	13.52 (for first year)	2 years
2	Mr.V.Vednarayanan	Intelligent Satellite Image Retrieval and Analysis based on Ontology Approach	ISRO (NRSC)	2012	14.41	3 years
3	Dr.C.D.Suriyakala	Development of User Friendly GUI for ATE Software Modules and Related dlls – Cardedge Studio	Qmax Test Equipments Pvt. Ltd., Chennai	2007	40.00	2 years
Total					67.93	

20. Research facility / centre with- state recognition, national recognition, and international recognition

- Centre for Advanced Electronic Test Engineering
- Centre for Space Technology
- Centre for NanoScience and Nano Technology
- Centre for Non-Destructive Evaluation and Testing
- Centre for Ocean Research

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NIL

22. **Publications** :

- Number of papers published in peer reviewed journals (national / international) : 524
- Monographs : Nil
- Chapters in Books : Nil
- Edited Books : Nil
- Books with ISBN with details of publishers : Nil
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.): Scopus : 176 /WoS - 18
- Citation Index – range / average : 1 – 7 / 1/75
- SNIP : 0.01 – 0.95
- SJR : 0.071 – 0.364
- Impact Factor – range / average : 0.26 – 0.701 / 0.526
- h-index : 03

23. **Details of patents and income generated**

S. No.	Name of the Faculty	Title of the Patent	Application No.	Patent No.	Year	Date of Grant
1	Dr.T.Sasiprabha, Dr.G.Sundari, Mr.M.Vadivel,Mr.N.Hariprasad, Mr.Himansu Patro	A mobile device for generating energy employing solar and wind energy	2590/CHE/ 2012	-	-	-
2	Mr.Kadamatti Harish Kumar, Mr.Jeeru Nitish Reddy, Mr.K.Dayanandhan, Dr.Dawn	Automatic Smart Segregator	6426/CHE/2014	-	-	-

24. **Areas of consultancy and income generated** : Nil

25. **Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad :**

IGCAR, Kalpakkam
 CVRDE, Avadi
 IIT, Indore
 IIIT, Kancheepuram, Chennai
 Visteon, Chennai
 CDAC, Chennai
 BITS, Pilani
 IIT, Bombay

26. **Faculty serving in**

a) National committees b) International committees c) Editorial Boards d) Any other (please specify)

S. No.	Name of the Faculty	Name of the Publisher/ Institute / University	Position held
1	Dr.V.Vijaya Baskar	Computers and Electrical Engineering (ELSEVIER), Studies on Ethno Medicine, Journal of Marine Science and Technology, Malaysian Journal of Computer Science	Reviewer
2	Dr. Rekha Chakravarthi	JESTEC, INDJST	Reviewer
3	Dr.M.S.Godwin Premi	Springer(IEIB), OCP (Adhoc & Wireless Sensor Networks), Journal of Electrical Engineering & Technology, Indian Journal Science and Technology International Journal of Engineerng	Reviewer

4	Dr.S.Maflin Shaby	JESTech	Reviewer
5	Dr.N.Prabakaran	Journal of Communications Technology, Electronics and Computer Science (JCTECS), (INDJST)	Reviewer
6	Mr.K.Dayanandhan	Sathyabama University (International Journal on Intelligent Electronic Systems & National Journal on Electronic Sciences and Systems)	Editorial Board Member

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Date	Name of the Program	Topic
10.06.16	Workshop	Comsol 5.2 and application builder workshop
25.05.16 to 27.05.16	Workshop	INUP Familiarization Workshop on Nanofabrication Technologies
09.06.16 to 10.06.16	Workshop	Embedded System Development using ARM and Xilinx boards
08.10.15 to 09.10.15	FDP	MULTISIM
31.03.15	Workshop	Recent Trends in Renewable Energy
8-12/12/2014	Workshop (5 days)	ISTE approved short term training program on emerging trends in image processing and its applications
Aug. & Sep. 2014	Workshop (5 Days)	Workshop on Signal and Image Processing Using LabVIEW
20/8/14	Seminar	Seminar on MATLAB & simulink Engg education
8,9/8/2014	Workshop	Workshop on mobile communication concepts using MATLAB and simulink
25/7/14	Seminar	Agilent tech day seminar
19/07/2014	Workshop	Latex

Date	Name of the Program	Topic
8,9/3/14	Workshop	Workshop on Network Simulation for MANETs, VANETs and Sensor Networks using NS2
21/2/ 14	Workshop	Workshop on Interconnection networks through Matlab with open problems
20,21/11/13	Workshop	Workshop on R&D issues and challenges
17,18/11/13	Workshop	Workshop on NS-3
12,13/10/13	Workshop	National workshop on mathematical modeling in WSN & Hands on training in OMNET++
2/3/13	Workshop	ADHOC wireless network using NS2
31/1,1/2/13	Workshop	Recent advances in Microwave devices and antennas technology
30/11,1/12/12	Workshop	Recent advances in mathematical computing
6,7/12/12	Workshop	Semantic web vision & technologies using protégé
16,17/10/12	Workshop	Educators day
16/10/12	Seminar	Agilent measurement seminar
4/8/12	Seminar	Seminar on MATLAB & simulink Engg education
16/4/12	Seminar	National seminar on advances in sensors & applications
31/3/12	Workshop	Workshop on writing technical paper
9/2/12	Workshop	Research challenges in MIMO-OFDM wireless systems
14,15/12/11	Workshop	Workshop on application of MATLAB & Labview for biomedical applications
29/11-5/12/11	Workshop	INUP workshop
16,17/9/11	Workshop	Advances in signal & image processing
8/9/11	Workshop	Current academics research in communication & networks
23/7/11	Workshop	Workshop on signal processing using MATLAB
28,29/3/11	Workshop	Workshop on NS2
16/3/11	Seminar	Complimentary Seminar on MATLAB & Simulink Engg. Education
14,15/3/11	Workshop	Workshop on VLSI for signal processing
17,18/12/10	Workshop	Workshop on MEMS sensors & fabrications
14/12/10	Workshop	VI MANTRA
11/10	Workshop	Signal processing
14/10/10	Workshop	Educators day-2010

Date	Name of the Program	Topic
3/9/10	Seminar	National Seminar on Wireless Fading Channels
28/8/10	Workshop	Workshop on MIMO-OFDM
27,28/8/10	Workshop	National workshop on Application of MEMS in Engg
21,22/8/10	Workshop	National Workshop on NS2 simulator
13/8/10	Workshop	National workshop on Research problem formulation & output documentation
7,8/8/10	FDP	Faculty development programme on Emerging trends in Automation & control
9,10/7/10	Workshop	Workshop on NS2 & GLOMOSIM
8,9/7/10	Workshop	Workshop on Embedded system design using PIC microcontroller
18/6/10	Workshop	Computational intelligence
4,5/3/10	Workshop	National workshop on DSP system design
3/3/10	Seminar	National Seminar on Research challenges in wireless sensor networks
31/12/09, 1/1/10	Workshop	International workshop on Recent advancement in microwave & optical communication technologies, RAMCOT'09
23,24/12/09	Workshop	National workshop on Application of MEMS in Engg
21/12/09	Workshop	International workshop on Recent advancement in microwave & optical communication
4,5/12/09	FDP	FDP on modern teaching methods and research in Engg & Tech
4,5/12/09	Workshop	Workshop on Next generation wireless technologies long term evolution
30/11/09	Seminar	Seminar on Ultrawide Band Communication
6/11/09	Workshop	Educators day 2009
28-30/10/09	Workshop	International workshop on nanoscience & technology
22-24/10/09	Workshop	National workshop on Applications of logic
9/10/09	Workshop	National workshop on industrial Application of FEM
27,28/9/09	Seminar	Virtual Instrumentation for process control application
19/9/09	Workshop	Advanced technologies in wireless communication
14/9/09	Seminar	Seminar by Agilent Technologies on RF design
27,28/8/09	Workshop	National workshop on Application of MEMS in Engg
7,8/8/09	Workshop	Workshop on How to do Research

Date	Name of the Program	Topic
31/7,1/8/09	Workshop	Workshop on wireless security
20,21/3/09	Seminar	National seminar on Nonlinear & Spinelectronics
27,28/2/09	Workshop	Application Technology and Research Trends In Underwater Communication
5/9/08	FDP	FDP on VLSI Design
18/8/08	FDP	FDP on Image processing and neural networks
4-9/8/08	FDP	Quality Improvement summer school Program on Bio Electronics
4,6/8/08	Workshop	Recent Trends and Emerging Scenario in Biomedical Engineering
24,25,26/7/08	Workshop	Workshop on Modelling & Simulation Tools on advanced communication systems
11,12/7/08	Workshop	Workshop on Embedded System Design
4,5/6/08	Workshop	Biomedical applications using NI labview
2,3/6/08	Workshop	Workshop on Sensor Web Enablement
18,19/04/08	Workshop	Workshop on wireless sensor networks
26-30/5/08	Seminar	STTP on Embedded system Design
29/2-1/3/08	Workshop	National Workshop on AMIBCE
15,17-19/12/07	Workshop	Practical Training in ASIC Design & Matlab based EDA tools
10,11/12/07	Workshop	Pre-Conference tutorial on Wireless Sensor Network
27,28/9/07	Workshop	Workshop on Virtual Instrumentation for Process Control Applications
9,10,11/7/07	Workshop	Workshop on Network Simulation using OPNET
19-21/7/07	Workshop	Workshop on Nuclear energy for National Development and environment sustainability
12,13/2/07	Workshop	Biomedical Simulators

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects : 90%
- Percentage of students doing projects in collaboration with other universities/industry / institute : 10%

29. Awards / recognitions received at the national and international level by

		National Level	International Level
Staff		06	-
Students	(Extra / Cocurricular)	17	-
	Sports	-	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S. No.	Name of Conference / Workshop	Date	Funding Agency	Outstanding Participants / Invited Speakers
1.	Introduction to Design tools and software	4-8-2016		Matcom systems
2.	FDP on multisim	08.10.15 to 09.10.15	-	OPTI THOUGHT (NI Service partner)
3.	Workshop on Signal and Image Processing Using LabVIEW	20. 08.14 to 04.09.14	-	OPTI THOUGHT (NI Service partner)
4.	Current Academic Revolution in Communication & Networking (CARCN-2014)	06. 03.14 & 07.03.14	-	Dr.Selvarajan, Associate Prof, IIIT – Kanchipuram
5.	COMSOL Multiphysics Modelling Workshop	12.07.2013	-	Mr.Ramesh, Software engineer, Comsol Ltd.
6.	Current Academic Research in Communication & Networking (CARCN-2013)	05.04.'13& 06.04.'13	IETE, Chennai	Dr.Chakravarthi IETE Chairman, Madras Section Dr.Sathiyamurthy, Former Addl. Director, CVRDE Dr.Radha Prof.SSN Engg College

S. No.	Name of Conference / Workshop	Date	Funding Agency	Outstanding Participants / Invited Speakers
7.	Current Academic Research in Communication & Networking (CARCN-2011)	08.09.'11 & 09.09.'11	IETE, Chennai	Dr.Thulasi Bai, Dean, Jaya Engg. College
8.	Network Simulator NS2 National level Faculty Development Program	21.08.'10 & 22.08.10	-	Dr.B.Chandra Mohan, PTR College of Engg. & Tech.
9.	Current Academic Research in Communication & Networking (CARCN-2010)	29.01.'10 & 30.01.'10	IETE, Chennai	Dr.P.E.Sankaranarayanan, Former Director Grade Scientist, CEERI
10.	National Level Technical Symposium, TELERADIX-09	24.07.'09 & 25.07.'09	-	Dr.P.E.Sankaranarayanan, Former Director Grade Scientist , CEERI
11.	Network Simulation using OPNET	9.07.'07 to 11.07.'07	-	Dr.Suresh Sankaranarayanan, Lecturer, University of Sydney

31. Code of ethics for research followed by the departments

It is important to adhere to ethical norms in research which promote the aims of research, such as knowledge, truth, and avoidance of error and also norms which promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness.

Strive for honesty in all scientific communications. Honestly report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data. Do not deceive colleagues, granting agencies, or the public. Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research where objectivity is expected or required. Avoid or minimize bias or self-deception. Disclose personal or financial interests that may affect research. Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication. Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions. Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.

32. Student profile programme-wise :

Name of the Programme	Applications received	Selected	
		Male	Female
B.E. - Electronics & Telecommunication Engg.	880	27	13
M.E. - Applied Electronics (Regular)	42	01	05

Name of the Programme	Year	Total no. of Students	Pass Percentage in University Exam
B.E. - Electronics & Telecommunication Engg.	I	40	-
	II	99	70.1
	III	127	76.38
	IV	184	69.02
M.E. - Applied Electronics (Regular)	I	6	-
M.E.-Applied Electronics (Part Time)	II	12	100
	III	17	76.4

33. Diversity of students

Name of the Programme	Batch	% of students from the same university	% of students from other universities within the State	% of students From universities outside the State	% of students from other countries
M.E. - Applied Electronics (Regular)	2016-2017	33.33	-	66.67	-
	2015-2016	-	-	-	-
	2014-2016	12.5	75.00	12.5	-
	2013-2015	27.27	63.63	9.09	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S. No.	Name of the Examination	No. of Students Cleared								
		2008	2009	2010	2011	2012	2013	2014	2015	2016
1	GRE	4	2	4	2	1	3	5	5	2
2	TOFEL	2	-	3	5	2	1	2	3	1
3	IELTS	2	3	1	2	1	4	2	1	1
4	GMAT	-	-	-	-	1	1	-	-	-
5	OTHERS	2	8	5	3	-	4	2	1	-

35. Student progression

Student progression		Percentage against enrolled
UG to PG		2 (0.9%)
PG to M.Phil.		-
PG to Ph.D.		14+3=17
Ph.D. to Post-Doctoral		-
Employed	Campus selection	B.E. : 86.25% M.E.: 33% (2/6)
	Other than campus recruitment	B.E. : 6 M.E.: 14
Entrepreneurs		B.E. : 1 M.E.: Nil

36. Diversity of staff

Percentage of Faculty who are Graduates	
of the same university	66.67
from other universities within the State	27.78
from universities from Other States	2.78
from universities outside the Country	2.78

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Ph.D : 7

38. Present details of departmental infrastructural facilities with regard to

a) Library

No. of Books		Cost
No. of Text Books	No. of Reference Books	
10832	161	Rs.46,65,814

b) Internet facilities for staff and students : Available in 115 systems in 3 different laboratories

c) Total number of class rooms : 12

d) Class rooms with ICT facility : 01

e) Students' laboratories

S. No.	Name of the Laboratory	Area in Sq. Feet	Cost of Equipments in Rupees
1	Communication Lab	2100	2371312
2	Electronic Circuits Lab	2500	1245905
3	Electron Devices Lab	2500	900217
4	Micro computing Lab	2000	459319
5	Micro electronics Lab	2400	1945936
6	Simulation Lab	1700	1243645
7	System Design Lab	1800	1588586
Total			9754920

39. **List of doctoral, post-doctoral students and Research Associates**

- a) From the host institution/university : 2
- b) From other institutions/universities : 4

40. **Number of post graduate students getting financial assistance from the university.** Nil

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- Identifying the need for a new course and its benefits
- Inputs from industries related to the course
- Percentage of renovation of existing infrastructure
- Assessment of Student-teacher ratio-load sharing
- Comparing the curriculum with any other state and national level universities.
- Identifying course co-ordinators.
- Resolution of Board of Studies (BOS) for its long term existence.
- Admission procedures

42. **Does the department obtain feedback from**

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? Yes

- Periodically feedback will be collected from the faculty and Training will be given on the basis of requirement of the staff in the specific field.
- Softwares or workshops on any specific softwares or training program from industrial persons will be arranged.
- Staffs are encouraged to do faculty development program and conferences conducted outside the university and based on that knowledge, presentation will be given by the staff and necessary ideas will be implemented in the curriculum.
- Seminars are arranged interdepartmental and knowledge sharing can be done and even software training can be obtained from the other staffs.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, Feedbacks about the staff are collected each semester in all the subjects and in teaching methodology

- Orientation program will be conducted for the new staffs and an exposure of all the details about the college will be discussed.
- Teaching skills, practical oriented teaching and creative learning methods have been discussed in the program.
- Industrial visits will be arranged for the students in the areas of knowledge lag.
- Seminars are arranged from industrial experts.
- Workshops are conducted for students new to any softwares

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes, Alumni meet is conducted every year to share their experience

- Industrial persons are identified based on their expertise and guest lectures or seminars are arranged for the students.
- Alumni students are asked to discuss about the ways of getting placed and the methods of preparing for placement and self development.
- Entrepreneurship programs are arranged based on the knowledge shared from them.

43. List the distinguished alumni of the department (maximum 10)

S.no	Alumini Name	Batch	Position
1.	Nitesh chaurasia	2003-2007	Senior software Engineer, Zensar Technologies, Johannesburg, South Africa
2.	Jerrin Thomas James	2003-2007	Head of Global Logistics & Supply Chain, Facebook, Inc., USA
3.	Sridhar Anandraj	2003-2007	Manager, International Property Consultancy, Chennai
4.	Garima Mishra	2004-2008	Squadron Leader, Indian Air Force, Pune
5.	Shubham Duttagupta	2004-2008	Research Scientist, Solar Energy Research Institute of Singapore (SERIS), Singapore
6.	Genin vincent	2004-2008	Technical support engineer, Maa television network, Hyderabad
7.	Hariram shankar	2004-2008	Software engineer, EMC Corporation, Massachusetts, USA
8.	Kumar Anurag	2004-2008	ASIC Design Engineer at Wipro VLSI, Bangalore
9.	Manoj Mathew	2005-2009	Team Lead, Alcatel-Lucent, Bangalore
10.	Ani Thomas	2007-2011	Programmer Analyst, CTS, Chennai

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	43
Workshops	7
Seminars	-

45. List the teaching methods adopted by the faculty for different programmes.

- Guest Lectures
- Industrial Visits
- Workshops
- Symposiums
- Project Exhibitions

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The main objective of the programme is to ensure that the students are being lessoned and shaped into a knowledgeable by teaching them out the box, along with the syllabus. Framing new syllabus, revision and up gradation is done by the Board of Studies to meet out the recent technologies and needs of the industrial environment. The exposure towards seminars, workshops, conferences and guest talks from eminent persons are remarkable. Industrial visits are arranged to make them sophisticated to the industrial environment. Placement training classes serves as a platform to satisfy the industrial needs. Feedbacks and Counseling systems are followed by acquiring feedbacks from parents, experts from companies, eminent academicians, students as well as faculty members in order to continually monitor, update and maintain the standard of the programme to meet the objectives constantly.

47. Highlight the participation of students and faculty in extension activities.

A) Participation of Faculties

Faculties are evaluated with following consideration: a) effectiveness in teaching and associated scholarly activities; b) effectiveness in research and scholarly activity, c) professional activities and d) university service. Faculty development programs are conducted to improve themselves t in teaching and scholarly activities. Along they are encouraged to develop and publish textbooks and other innovative teaching methodology or materials; Publication of pedagogical papers in appropriate peer-reviewed literature; external funding of teaching-related activities. Publications of manuscripts in refereed journals or in refereed proceedings of major conferences and publication of a scholarly book are typical and primary examples of such effectiveness are explained below

- Attended Faculty Development Programmes.
- Participated and Presented in National and International Conferences
- Published manuscripts in National and International Journals.
- Apart from curriculum, conducted special lectures for students on current emerging technologies
- Attended Workshops to update their knowledge in software skills in the areas such as MEMS, Nano Electronics, Microwave, Bio- Electronics, Networking, Wireless Communications, Microprocessor, Embedded Systems and VLSI.

B) Participation of Students

The focus of the Student Development activities is to encourage students to participate and discover themselves. Our centre of attention is to facilitate the budding engineers to improve the communicative, presentation and writing skills at all levels.

- Attended workshop on “Recent trends in Industrial Electronics” conducted by the Department of ETCE
- Techno summit – Symposium conducted by ETCE to bring out the innovations of young Engineers
- Ethical Hacking – Workshop conducted to create awareness among the students.
- Participated in Non-technical events such as ADZAP, JAM, oration/public speaking activities like JAM, extempore, debate, skit, elocution, mono acting, block and tackle, speeches of great men and other activities like miming, word games, poster making, Spelling Bee, writing competitions (poem, short story, essay), blog writing and calligraphy conducted by various departments of Faculty of Electrical and Electronics.
- Presented papers in National and International Conferences

48. Give details of “beyond syllabus scholarly activities” of the department.

Engineering plays a vital role in shaping the world and offers sophistication in the environment which we live in. As a part of the scholarly activities of ETCE department we mainly concentrated in preparing our young and energetic engineers to meet the technical challenges and achieve their aim. To accomplish our motto we have segregated our students into two groups namely green environment and compassionate group.

In addition to the formal education and the knowledge of science we motivate the young minds to learn science more interestingly by conducting seminars, symposiums, workshops and conferences to create opportunities for the student community to excel and to pursue their talents outside the curriculum. Guest Lectures have been conducted to familiarise our students in current technologies. We have arranged Industrial visits for the students to gain knowledge in industrial developments.

Following are the events occurred to improvise our student's skills.

- To improve student's innovative thoughts we encourage students to present innovative articles in our department magazines.
- Few projects titled Robotics, Speech recognition crane, Quad copter was selected and students are encouraged to do.
- Coaching for Communication skill development, personality development was given to the students
- Languages like German, Chinese, French has been taught to our students. Classes for Vedic maths, cookery are also being conducted.
- Through Entrepreneur development program we have encouraged our students for self employment
- Power series lectures are given with eminent speakers from different countries.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Accredited by NAAC with B++ grade and declared as 'A' by Ministry of Human Resources Department, Government of India and also certified ISO 9001:2008

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

"There's no greater calling than to serve your fellow men. There's no greater contribution than to help the weak. There's no greater satisfaction than to have done it well". It is great delights to show case the contributions of our department. We have set the student chapters on IETE, IEEE, to improve student's knowledge in engineering concepts and current development and researches in depth. Our department is contributing to the society by making young students as innovators in the field of electronics and telecommunication. On this perspective student development programs have been conducted in different skills. Our department has organized the soft skill development programs to improvise the behavior of the student. Every semester Industrial visits are arranged to the students to make them feasible for industry. Our department organizes conference programs in regular interval which cultivates thoughts of the students which brings new ideas. As we know the depths of the brain can be measured only by the quality of the thoughts that we get from our brain. So far we have triggered the young brains with intellectual thoughts and ideas to make engineering a divine dwelling for inventions. Our department provided platform to the students to put their knowledge in launching sathyabama EDU satellite. To make students understand the essentials of society, pupils are encouraged to involve the finance management programs. Our department often conducts workshops to the students to develop their communication skills as well as technical skills.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths:

- The quality of the faculty with the diversity of expertise and scientific approach
- Cooperative Learning Environment - Labs and other projects are done in small groups
- The department maintains a good range of equipments for advanced labs
- The curriculum is innovative and reflects the state of the art
- Working together is our success - Planning and implementation of the work with practical approach

Weakness:

- Number of project proposals are less and so research funds generated by projects are low
- Collaborative research/projects among the faculty member are less
- Minimum number of publications with high impact factor

Opportunities:

- Well placed to undertake cross-disciplinary collaboration (research, teaching, service) within and beyond the department in alignment with the university strategic plan due to broad-based disciplinary focus of department faculty and programs
- The broad-based disciplinary bases to our programs of study provide opportunities for cross curricular synergies within and beyond the department
- The high level of interest in department programs provides an opportunity to translate high student demand into more selective admission

Challenges:

- To receive grants for sponsored projects from various funding Agencies
- To publish Scopus indexed/ refereed Journals
- To motivate students to work on projects towards patent
- To achieve 100 % Placement for all registered eligible students.
- To make all the staff members with Ph.D qualification.

52. Future plans of the department.

- The Department shall continue its duty of imparting education through its UG & PG programmes and shall promote research activities through the Ph. D course
- Establishing exchange programs with industries in order to benefit from their expertise in the field of research.
- Modifying and updating teaching methods in keeping with challenges and demands of the teaching
- Augmenting department infrastructural facilities and planning to promote research in emerging areas
- Encouraging the Faculty and students in publications and innovative projects.

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

1. **Name of the Department** : DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

2. **Year of establishment** : 1995

3. **Is the Department part of a School/Faculty of the university?**

School of the university- School of Electrical and Electronics Engineering

4. **Name of the programmes offered:**

UG Course : B.E (ELECTRONICS & INSTRUMENTATION ENGINEERING)

PG Course : M.TECH.(NUCLEAR SCIENCE AND ENGINEERING)- Full Time

Ph.D : Doctor of Philosophy
M.TECH (By Research)

5. **Inter Disciplinary programmes and departments involved** : NIL

6. **Courses in collaboration with other universities, industries, foreign institutions etc.:**

A certificate course on "PLC and SCADA" in collaboration with EPAXIS Automation Private Ltd for III Year U.G students of the department.

7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems: Annual/ Semester/ Trimester/Choice based credit system:**

SEMESTER AND ABSOLUTE CREDIT BASED SYSTEM

9. **Participation of the department in the courses offered by other departments:**

Name of the subjects	Service offered to Department
Electron Devices	CSE,IT,ECE
Control Systems	CSE,IT
Basic Electrical Engineering	AERO,ECE, Automobile
Measurements and Instrumentation	EEE,ECE, ETCE
Network Analysis and Synthesis	ECE
Digital Logic Circuits	ECE
Probability Theory & Random Process	ECE
Computer Communication	ECE
Mechatronics	Mechanical, Mech & Production
Electrical engineering	Mechanical
Basic Electrical and Electronics Engg	Chemical
Fundamentals of Digital Systems	CSE,IT
Microprocessor, Microcontroller & Embedded system	Physics
Analog Integrated Circuits	ECE
Medical Electronics & health	PG- Biomedical Inst
Virtual Bioinstrumentation	Biomedical Instrumentation
Fuzzy Logic and Neural Networks	BIO-MED

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	04	04
Associate professors	01	01
Assistant Professors	19	19
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	No of years of experience			No of PhD/ M.Tech (By Research) students guiding for the last 4 years
					Teaching	Industry	Total	
1.	Dr.B.SheelaRani	M.S (By Research), Ph.D	Vice-Chancellor	Image Processing and Soft Computing	28 Yrs 2 months	2 Yrs	30 yrs 2 months	10 (6 completed)
2.	Dr.R.Ramadevi	M.E.,Ph.D	Professor	Evolutionary Computation Techniques	18 yrs	-	18 yrs	3
3.	Dr.S.Lalitha Kumari	M.E.,Ph.D	Professor	Signal Processing & Soft computing	20 yrs 2 months	-	20 yrs 2 months	4

S. No	Name	Qualification	Designation	Specialization	No of years of experience			No of PhD/ M.Tech (By Research) students guiding for the last 4 years
					Teaching	Industry	Total	
4.	Dr.K.Sujatha	M.E.,Ph.D	Professor & Head	Signal Processing	19 yrs 6 months	-	19 yrs 6months	-
5.	Mr.R.Pandian	M.E.,(Ph.D)	Associate Professor	Image Processing	13 yrs 6 months	1 year	14 yrs 6 months	-
6.	Mr.J.Jaiganesh	M.Tech., (Ph.D)	Assistant Professor	Laser & electro-optics	10 yrs 2 months	2 yrs 5months	12 yrs 7 months	-
7.	Ms.K.P.Indira	M.E.,(Ph.D)	Assistant Professor	Image Processing	12 yrs		12 yrs	
8.	Ms.T.Thaj Mary Delsy	M.E.,(Ph.D)	Assistant Professor	Signal Processing	10 yrs 7 months	-	10 yrs 7 months	-
9.	Ms.G.Rajalakshmi	M.E.,(Ph.D)	Assistant Professor	Multivariate Signal Processing	11 yrs 11months	-	11 yrs 11months	-
10.	Ms.T.V.Subha Austalekshmi	M.E.,(Ph.D)	Assistant Professor	Electronics & Control	9 yrs	6 months	9 yrs 6 months	-
11.	Ms.V.AmalaRani	M.E.,(Ph.D)	Assistant Professor	Electronics & Control	6 yrs 6 months	-	6yrs 6 months	-
12.	Ms.D.Jamuna Rani	M.E.,(Ph.D)	Assistant Professor	VLSI	6 yrs 2 months	-	6 yrs 2 months	-
13.	Mr.C.Vinoth Kumar	M.E.,(Ph.D)	Assistant Professor	Instrumentation	5 yrs 5 months	-	5 yrs 5 months	-
14.	Ms.S.Celin	M.E.,(Ph.D)	Assistant Professor	Signal Processing	4 yrs 2 mths	-	4 yrs 2 mths	-

S. No	Name	Qualification	Designation	Specialization	No of years of experience			No of PhD/ M.Tech (By Research) students guiding for the last 4 years
					Teaching	Industry	Total	
15.	Mr.S.Bestley Joe	M.E.,(Ph.D)	Assistant Professor	Micro Electromechanical Systems	4 yrs 2 mths	-	4 yrs 2 mths	-
16.	Ms.A.Anne Frank Joe	M.E.,(Ph.D)	Assistant Professor	Multivariate Signal Processing	4 yrs 2 mths	-	4 yrs 2 mths	-
17.	Ms.Elizabeth Sherine	M.E.,(Ph.D)	Assistant Professor	Applied Electronics	4 yrs 2 mths	1 yr 8 months	5 yrs 10 mths	-
18.	Ms.Sherline Jesie	M.E.,(Ph.D)	Assistant Professor	Applied Electronics	4 yrs 10 months	-	4 yrs 10 months	-
19.	Ms.A.Sabarivani	M.E.,(Ph.D)	Assistant Professor	BioMedical Instrumentation	3 years 2 mths	-	3 years 2 mths	-
20.	Ms.S.Sindhuja	M.E	Assistant Professor	Power Electronics	3 years 2 months	-	3 years 2 months	-
21.	Ms.Shinu Sadeyone(Maternity Leave)	M.E	Assistant Professor	Applied Electronics	3 years 2 months	-	3 years 2 months	-
22.	Ms.D.Marshiana	M.E.,(Ph.D)	Assistant Professor	Process Control & Instrumentation	12 years 2 months	-	12 years 2 months	-
23.	Mr.N.R.Krishnamoorthy	M.E.,(Ph.D)	Assistant Professor	Electronics & Control	12 yrs 2 months	-	12 yrs 2 months	-

S. No	Name	Qualification	Designation	Specialization	No of years of experience			No of PhD/ M.Tech (By Research) students guiding for the last 4 years
					Teaching	Industry	Total	
24.	Mr.N.Suresh	M.E.,(Ph.D)	Assistant Professor	Control & Instrumentation	7 yrs	-	7 yrs	

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**

1. Dr. Vijay.K. Varadhan
2. Dr.B.Venkatraman
3. Dr.P.Kalyanasundaram

13. **Percentage of classes taken by temporary faculty-programme-wise information** : NIL

14. **Programme- wise Student Teacher ratio**

By taking into account, the subject handled by faculty members of other departments, the staff student ratio: 1:15

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

- Number of Technical Staff Sanctioned: 5
- Number of Technical Staff filled: 5

16. **Research thrust areas as recognized by major funding agencies:**

Non Destructive Evaluation Techniques using Image & Signal Processing

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise: Nil**

18. **Inter-Institutional collaborative projects and associated grants received**

Agency	Collaborative Institution	Title of the Project	Sanctioned	Duration
BRNS	IGCAR	Application of advanced signal analysis approaches for enhanced detectability of defects in thick walled weldments by ToFD and correlation with high sensitivity radiography and with other advanced NDE techniques. 2008/36/04-BRNS/250 Dt. May 22,2008	Rs.21,64,550/-	2 Years May 08 -10 Ext

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.B.SheelaRani	Development of Wavelet based tools and Neuro Fuzzy Control software for online weld monitoring by Thermal imaging.	IGCAR	2005 (IGC / 05 Dt: June 13,2005)	Rs 4,92,000 /-	2 Years June 05 - 07

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
2	Dr.B.SheelaRani	Development of Digitization protocols and application of Image processing and Soft computing tools for evaluation of Radiographic weld images.	IGCAR	2006 (IGCAR /ESG / 05 Dt: October 5,2006)	Rs 5,32,000 /-	2 Years Oct 06 - 08
3	Dr.B.SheelaRani	Indigenous Design and Development of Teletector.	IGCAR	2005 (IGCAR/RSD/RI/Tele/2005 Dt: Dec 2005)	Rs 5,34,000 /-	1 ½ Years Dec 05 – May 07
4	Dr.B.SheelaRani	Cavitation detection in pressure drop devices based on artificial neural network for prototype fast breeder reactor.	IGCAR	2007 (IGC/ FRTG/CMS–SDU/2007Dt:July 6,2007)	Rs 6,46,000 /-	2 Years July 07 - 09
5	Dr.B.SheelaRani	Cavitation Prediction in pumps using Wavelet analysis.	IGCAR	2007 (IGC/FRTG/CIDD/LCTS/CavPredn/Aug Dt: Aug 6,2007)	Rs 8,81,000 /-	19 months Aug 07 - Mar 09 Ext
6	Dr.B.SheelaRani	Development of wavelet based multisensor ultrasonic data fusion algorithm for estimation of sizing of small components.	IGCAR	2009 (IGC/FRTG/CMS-SDU/2009 Dt: Aug 3, 2009)	Rs 9,86,000 /-	2 Years Aug 09 - 11

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
7	Dr.B.SheelaRani	Application of advanced signal analysis approaches for enhanced detectability of defects in thick walled weldments by ToFD and correlation with high sensitivity radiography and with other advanced NDE techniques.	BRNS	2008 (2008/36/04-BRNS/250 Dt. May 22,2008)	Rs.21,64,550/-	2 Years May 08 - 10 Ext
8	Dr.B.SheelaRani	Study and Development of Image processing algorithm for landmine detection	CVRDE	2006 (CVRDE/MMG/06-07/0022/CARS dt : 21.04.06)	Rs 9,52,000 /-	2 Years May 6-7
9	Dr.B.SheelaRani	Study and Development of algorithm for obstacle detection through 3D scene generation from 2D images.	CVRDE	2006 (CVRDE/MMG/06-07/0021/CARS dt : 21.04.06)	Rs 9,89,000 /-	2 Years May 06 - 07
10	Dr.B.SheelaRani	Feasibility study design and development of Mini Robot	CVRDE	2007 (CVRDE/MMG/07-08/0002/CARS dt : 04.04.07)	Rs 9,80,000 /-	2 Years Apr 06 - 07 Ext
Total					Rs. 91,56,550/-	

20. Research facility / centre with

State recognition: NIL

National recognition:

- Centre for NDE
- Center for earth and atmospheric research.

International recognition: NIL

21. Special research laboratories sponsored by / created by industry or corporate bodies

S.No	Name of the Equipment	Agency Sponsored / Industry
1	Cavitation test loop	IGCAR

22. Publications:

- Number of papers published in peer reviewed journals (national / international): 296
- Monographs: NIL
- Chapters in Books: NIL
- Edited Books: NIL
- Books with ISBN with details of publishers: NIL

- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): Scopus – 110, WoS - 03
- Citation Index – range : 1 – 5 / 1.8
- SNIP: range: 0.0168 – 0.967
- SJR: range: 0.118 – 0.224s
- Impact Factor – 0.012 – 0.67 / 0.38
- h-index - 03

23. **Details of patents and income generated** : NIL

24. **Areas of consultancy and income generated** :

S.NO.	NAME OF THE FACULTY	NAME OF THE ORGANISATION	NATURE OF CONSULTANCY	REVENUE EARNED in Rs.
1	Department of E&I	IGCAR	Scientist & Engineering Workshop Six days Workshop on Matlab _ Fuzzy logic, Simulink	Rs.1,05,000/-
2	Department of E&I	IGCAR	Scientist & Engineering Workshop Six days Workshop on Matlab _ SP / IP Wavelet .	Rs.1,00,000/-

25. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

S.No	Name of the faculty	laboratories / institutions /industries
1	Dr.B .SHEELARANI	DRDO Laboratories like CVRDE,ADE DAE R&D Institutions like IGCAR,IPR,BARC CSIR Laboratories like CEERI,CSIO,CLRI,CECRI
2	Dr.K.SUJATHA	IGCAR
3	Dr.R.RAMADEVI	IGCAR
4	Dr.S.LALITHAKUMARI	IGCAR

26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)

S.No	Name of the faculty	Name of the committee
1	DR.B.SHEELARANI	Member of IE
		Member of ISTE
		Member of ISNT
		Member of ISOI
		Member and Secretary of ISRS
		Member of Board of Research of Sathyabama University
2	Dr.K.SUJATHA	Member Of Board Of Studies In Dharmambal Polytechnic, Chennai
3	Dr.R.RAMADEVI	Member of Instrument Society of India
4	Dr.S.LALITHAKUMARI	Member of Indian Society for Technical Education

S.no	Name of the staff	Reviewer
1	Dr.R.RAMADEVI	Indian Journal of Science and Technology
2	Dr.S.LALITHA KUMARI	Journal of Advances in Signal Processing
3	Ms.V.SUBHA AUSTALEKSHMI	International Journal of Pharmacy and Pharmaceutical Sciences, Journal of Intelligent Electronics System.

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Conducted by the Department:

S.No	Date	Name of the Program	Topic
1	Feb. 16 th &17 th 2008	Workshop	Modern Tools for Intelligent Instrumentation
2	April 8 th to 10 th 2010	Workshop	Diversity of instrumentation in avionics/Oceanic/Biomedical applications
3	July 23 rd 2011	Workshop	Signal Processing using MATLAB
4	September 22 nd 2012	Training (FDP)	Image Processing using MATLAB
5	January 30 th & 31 st 2013	Workshop	PLC & SCADA
6	November 19 th , 2013	Refresher course	Introduction to the Up gradation of Lab view Toolboxes
7	Feb 13 th 2016	Training	Research challenges in soft computing

Attended by Staff of the Department:

S.No	Date	Name of the Program	Topic
1	July 6 th &7 th 2007	Workshop	Data Acquisition & Biomedical Instrumentation using LABVIEW
2	July 19 th to 21 st 2007	Workshop	Nuclear Energy for National Development and environmental sustainability
3	Aug. 10 th & 11 th 2007	Workshop	Advances in Process control and Instrumentation
4	Sep. 12 th to 14 th 2007	Workshop(AICTE)	Role of Embedded systems in Industries
5	Sep. 27 th & 28 th 2007	Workshop	Virtual Instrumentation for process control Applications
6	Oct. 25 th to Nov.5 th 2007	Training	Geospatial Technology concepts & Applications
7	Dec.15 th , 17 th -19 th 2007	Workshop	ASIC design and MATLAB based EDA tools
8	June 2 nd & 3 rd 2008	Training	Sensor Web Enablement
9	Sep. 18 th 2008	Training	Total Station Surveying & other Advanced Techniques
10	July 6 th to 10 th 2009	Workshop	Advanced graphical system design with LABVIEW II
11	Dec 4 th & 5 th 2009	Training(FDP)	Modern teaching methods and research in Engineering and Technology
12	July 8 th &9 th 2010	Workshop	Embedded System Using PIC Microcontroller
13	March 16 th 2011	Workshop	Matlab & Simulink for Engineering Education
14	June 18 th 2011	Seminar (ISA)	Wireless Technologies in Instrumentation
15	June 23 rd to 25 th 2011	Workshop(AICTE)	Design and Implementation of Advanced Controllers for Nonlinear Systems using LabVIEW
16	July 7 th &8 th 2011	Workshop	Advanced Concepts & Hands on Training Using MATLAB
17	July 28 th &29 th 2011	Seminar	Recent Trends in Process Control Modeling & Simulation
18	July 5 th &6 th 2012	Seminar (AICTE)	Future Trends in communication Networks
19	August 11 th 2012	Workshop	Research Methodologies & Technical writing of Journal Papers& Research thesis
20	August 24 th 2012	Training (seminar)	MATLAB & Simulink for Engineering Education
21	August 1 st & 2 nd 2013	Training(FDP)	Labview for Biomedical Applications
22	Sep 12 th . 2013	Seminar	Siemens Education day
23	Sep. 26 th &27 th 2013	Training(FDP) ISA	Advanced Industrial Automation and Machine vision using Labview
24	Oct. 26 th 2013	Workshop	Entrepreneurship inter future of young India

S.No	Date	Name of the Program	Topic
25	19 TH Nov 2013	Refresher Course	Introduction to the upgradation of LABVIEW Toolbox
26	16 TH July 2014	Workshop	How to write Research Paper in Latex & How to frame thesis in Latex.
27	28 TH Nov 2014	Workshop(CSIR)	Induction Motor and Efficiency Monitoring System.
28	7 TH Nov 2014	Training Seminar	Tutorial on Chemometrics
29	18 TH Dec 2014	Faculty Development Programme	MATLAB for Signal and Image Processing Tool Box with Simulink
30	23 RD & 24 TH JAN 2015	Seminar	Emerging Trends in Medical electronics,Sensors & Instrumentation
31	9 th & 10 th Mar 2015	workshop	Trends in Non-destructive Evaluation of weldness
32	18 th July 2015	workshop	One day workshop on Research methodology
33	10 th & 11 th Sep 2015	workshop	Real time image processing using NI LabVIEW
34	9 th Oct 2015	workshop	COMSOL for Academic Research & Teaching
35	13 th Feb 2016	Training(FDP)	Research challenges in soft computing
36	4 th & 5 th Mar 2016	workshop	IoT for smart Cities
37	22 th Mar 2016.	workshop	COMSOL for Academic Research & Teaching
38	24 th & 25 th June 2016	Workshop (TEQIP-II)	Wireless Sensor networks
39	18 th & 19 th July 2016	Faculty Development Programme	Linux and Computer Networking

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects :85
- Percentage of students doing projects in collaboration with other universities/industry / institute :15

29. Awards / recognitions received at the national and international level

		National Level	International Level
Staff		1	-
Students	(Extra / Cocurricular)	43	1
	Sports	9	-

30. Seminars/ Conferences/ Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	outstanding participants *
1	Intelligent processing of signals & images	OCT 2006	IGCAR	
2	ELECTRON'07	20 th & 21 st August,2007	ISOI	
3	International Conference on "Trends In Intelligent Electronic Systems-2007" (TIES 2007)	12 th & 14 th November,2007	IGCAR, Kalpakkam & Sathy	IGCAR Scientists
4	ARDEUR'08	15&16 th September,2008	ISOI	
5	International Conference on "Emerging Scenarios In Space Technology And Applications- 2008" (ESSTA 2008)	13 th to 15 th November 2008	ISRO, BANGALORE	
5	International Conference on "Emerging Scenarios In Space Technology And Applications- 2008" (ESSTA 2008)	13 th to 15 th November 2008	ISRO, BANGALORE	
6	ITFA'09	31 st August & 1 st September, 2009	ISOI	
7	International Conference on "Recent Advances in Space Technology Services and Climate Change – 2010"	3 rd to 5 th December,2010	ISRO, BANGALORE	
8	National conference on New Avenues in sensor &Automation(NASA'12)	15 th &16 th March,2012		Dr.G.Ananda Ramadass Project director, NIOT
9	National conference on New Avenues in sensor &Automation(NASA'13)	6 th &7 th May,2013		
10	National conference on New Avenues in sensor &Automation(NASA'14)	3 rd Sep 2014		
11	National conference on New Avenues in sensor &Automation(NASA'15)	2 nd Sep, 2015		
12	National conference on New Avenues in sensor &Automation(NASA'16)	23 rd Feb , 2016		
13	Emerging Novelities and Vistas In Space Technologies and Applications (ENVISTA-2016)	25-27 Feb , 2016	ISRO, BANGALORE	Dr.K.S. Das Gupta, Director of Indian Institute of Space, Science & Technologies, ISRO, Trivandrum.

31. **Code of ethics for research followed by the departments**

The outcome of research should be beneficial to the society. The idea must be original and innovative. Plagiarism, Falsification must be totally eliminated. Referred papers must be properly cited and acknowledged. Comprehensible and unequivocal advice is followed.

32. **Student profile programme-wise:**

a. Programme wise (2015-2016)

YEAR	APPLICATIONS RECEIVED	SELECTED	
		MALE	FEMALE
I UG	1092	33	06
II UG	1372	35	14
III UG	3612	77	52
IV UG	5684	137	66

b. Programme wise(2016-2017)

YEAR	APPLICATIONS RECEIVED	SELECTED	
		MALE	FEMALE
I UG	1090	29	10
II UG	1092	33	06
III UG	1372	35	14
IV UG	3612	77	52

c. University Results (2015-16)

PASS% in University Exam		
Year	Pass %	Overall %
I UG- I /II SEM	76.32/50	63.16%
II UG- III /IV SEM	46.8/47.83	47.32%
III UG – V/VI SEM	64.71/71.46	68.09%
IV UG – VII/VIII SEM	91.70/87.22	89.46%

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of Students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of Students from other countries
NIL	-	-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations?
Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)
1.	GATE	2005-2009:4 2006-2010:1 2007-2011:2 2009-2013:4 2010-2014:2
2.	GRE	2005-2009:3 2006-2010:2 2007:2011:4 2008-2012:3 2009-2013:4 2010:2014:4
3.	IELTS	2005-2009:1 2008-2012:1 2009-2013:6
4.	Civil Services & Defense Services	2008:2012:2 2010:2014:2

35. Student progression

Student progression	Percentage against enrolled
UG to PG	2005-2009=>27% 2006-2010=>25% 2007-2011=>10% 2008-2012=>30% 2009-2013=>10% 2010-2014=>11% 2011-2015 =>10%
PG to M.Phil.	-
PG to Ph.D.	1
Ph.D. to Post-Doctoral	-
Employed	
• Campus selection	37%
• Other than campus recruitment	9%
Entrepreneurs	4%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	40 %
from other universities within the State	60 %
from universities from other States	-
from universities outside the country	-

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:**

1 staff was awarded the Ph.D degree in the year 2013.

1 staff was awarded the Ph.D degree in the year 2014.

Ph.D defending Viva-voce was conducted for 1 staff in the year 2016.

38. **Present details of departmental infrastructural facilities with regard to**

a) Library

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
15,311	268	37,60,750/-

b) Internet facilities for staff and students

40 Dell, Model Optiplex 390, 25 systems with dualcore 80 GB harddisk,

512 RAM, Microsoft keyset. 10 MHz speed Broadband Internet.

c) Total number of class rooms: 12

d) Class rooms with ICT facility: 1

e) Students' laboratories

f) Research laboratories

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	MICROPROCESSOR AND INTERFACING LAB	500	Rs.12,42,009/-
2	LINEAR AND DIGITAL IC LAB	1300	Rs.31,08,686/-
3	COMPUTER BASED INSTRUMENTATION DESIGN LAB	1300	Rs.36,83,929/-
4	COMPUTER CONTROL OF PROCESS LAB	2300	Rs.23,38,641/-

39. List of doctoral, post-doctoral students and Research Associates

- a) From the host institution/university :8
- b) From other institutions/universities: 4

40. Number of post graduate students getting financial assistance from the university: NIL

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

Nuclear science finds numerous applications in the fields of power generation, medicine, defence etc. To cater the needs of industry and research work based on nuclear science, this course was identified. The curriculum was carefully designed based on the inputs from scientists of BARC, Mumbai and DAE, Kalpakkam. The research thrust area of NDE in nuclear industry is the motivation behind offering this course .

42. Does the department obtain feedback from

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, we do. According to the feedback, for difficult or relatively new topics in the subjects, Staff are requested to attend FTP's, workshops & Seminars on those topics

b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes, we do. According to the feedback on difficult topics, the staffs are requested to deal those topics once again during special classes after the university hours and by means of guest lectures.

Feedback on staff is taken periodically and based on the feedback; corrective action is taken so that the staff can improve themselves.

c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

Yes, we do. According to the feedback from alumni and from industries, the syllabus are updated according to the present scenario in the industry by discussing in the board of studies.

43. List the distinguished alumni of the department (maximum 10)

S.NO	NAME OF THE STUDENT	BATCH	JOB DETAILS
1	JAGAN MOHAN	2004-2008	SENIOR INSTRUMENTATION ENGINEER, ADVANCED OILFIELD TECH COMPANY LLC, MUSCAT, OMAN
2	SIDDARTH SHANKAR	2005-2009	SENIOR SOFTWARE ENGINEER, HCL TECH LUCKNOW, NOIDA CAMPUS.
3	SATISH.P	2005-2009	SENIOR SOFTWARE ENGINEER, ROBERT BOSCH- COIMBATORE.
4	ABISHEK NAGARAJ	2005-2009	TECHNOLOGY CONSULTANT DELOITTE
5	AMAR ANBUVEL	2005-2009	DIRECTOR ANBU TEXTILES, MADURAI.
6	ARCHANA DEVI	2006-2010	SHADESNDESIGNS, CO-FOUNDER, INDIA
7	R.UDHAYA BHARATHI	2008-2012	SENIOR SYSTEMS EXECUTIVE, COGNIZANT TECHNOLOGY SOLUTIONS.
8	C.SIVA PRAKASH	2008-2012	ASSISTANT ENGINEER, METTUR THERMAL POWER STATION - II, METTUR, INDIA.
9	KAVITA SIVA KUMAR	2010-2014	SOFTWARE ANALYST, INFOSYS, MYSORE, INDIA.
10	MERSAL A	2011-2015	GRADUATE ENGINEERING TRAINEE, JOHNSON CONTROLS, MUMBAI, INDIA.

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	18
Workshops	7

45. List the teaching methods adopted by the faculty for different programmes.



LECTURE MODE : Traditional Method (Chalk and Talk) and Innovation Method (Multimedia).

EXPERT LECTURE : Experts from various industries and companies are invited to interact with the students.

GROUP ASSIGNMENT : Group Activity such as discussions on latest topics, debates and quiz

INDUSTRIAL VISIT : Industrial visit ensures the students to bridge the gap between classroom and the real working world.

PROJECTS : Mini Projects, Live Projects, Industrial Projects.

SEMINARS : Recurring meetings, focusing each time on some particular subject, in which everyone can actively participate.

WORKSHOP : Students engage in intensive discussion and activity on a particular subject or project.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Continuous Monitoring of performance of students in assessments and university examinations is done and actions are taken. The weak students are identified and special classes retest, assignments are frequently conducted for them. The students are encouraged and motivated to attend in-plant training to get exposure about industries. Guest lectures, Seminars, group discussions are conducted for students. The students are encouraged to do mini projects.

47. Highlight the participation of students and faculty in extension activities.

- Students undergo Inplant training in renowned Industries like Neyveli Lignite Corporation, CPCL, IGCAR, BSNL etc.
- Students also undertake projects as part of their curriculum at Industries like BHEL, NLC etc.
- Faculty members undergo training and faculty development programs organized by National Organizations like UGC Undergo research projects at National Industries and Institutions like IGCAR, DST etc.

48. Give details of “beyond syllabus scholarly activities” of the department.

Students are advised to take up mini projects. Students are made aware of latest trends in industries through In-plant training and Industrial Visits to various industries. Experts from various fields are called for delivering special lectures to highlight the students about latest technologies. Students are encouraged to give seminars in a topic relevant to their field of study, which helps in improving their communication skills. Group Discussions, Aptitude Tests, career development training and personality development training are conducted for the students. Workshops, Symposium and conferences are conducted for the staff and students to enable interaction with the counterparts from other institutions. Staff and students are also motivated to attend workshops, training, Symposia organized by other Institutions.

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details:**

- Yes, Accredited by NAAC with B++ grade
- Declared as Category A University by the task force appointed by ministry of Human Resourced Development (MHRD), Govt of India
- ISO certified by DNV in the standards 9001:2008

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- The Revision of the syllabus with the inclusion of new and emerging areas of Instrumentation Engineering is done so as to meet the latest demands in the industries.
- The staff members are encouraged to attend the various faculty development programmes and Conferences.
- Modernization of the laboratories, with the latest equipments and software is always priority.

Almost all the staff members are pursuing academic and sponsored research in the newest areas of Instrumentation Engineering and many research papers were published.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths:

- Staff qualified in diverse fields of Instrumentation.
- Excellent support from Management
- Facilities such as high speed Internet, Intranet, computer facilities.
- International Research centre in the campus provides the latest facilities for research.
- Dedicated and Good team work of faculty.

Weaknesses:

- More funded projects to be received
- More number of papers in peer reviewed journals are to be published
- Patents are yet to be filed

Opportunities:

- Availability of Digital Library with access to various journals.
- International Research Centre with good facilities.
- High speed access to the Internet.
- Good Motivation for research from the Management.
- Excellent Infrastructure for staff and students.
- Enthusiastic staff and student community

Challenges:

- To initiate funded research projects and consultancy services
- To increase the placement of students in core companies.
- To motivate students and staff towards patents.
- To increase the publications of staff in journals with high impact factor.

52. **Future plans of the department.**

The Department aims to strengthen teaching and research in various areas and plans to provide state-of-the-art facilities to all the students, faculty members and researchers so that they can remain at the forefront of technology.

The department intends to keep pace with the emerging technology by pursuing research work in the contemporary challenging domains such as:

- Signal / Image Processing Applications
- Soft Computing techniques for Non Destructive Testing
- Instrumentation and control Applications besides other areas

DEPARTMENT OF ELECTRONICS & CONTROL ENGINEERING

1. **Name of the Department** : Department of Electronics and Control Engineering
2. **Year of establishment** : 1993
3. **Is the Department part of a School/Faculty of the university?**
Faculty of the university –School of Electronics and Electrical Engineering
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.) :**
U.G : B.E., Electronics and Control Engineering (4 Years)
PG : M.E., Electronics and Control Engineering
M.Tech- Robotics and Artificial Intelligence (2 Years)
Ph.D : Doctorate of Philosophy
M.S (by Research) Electronics and Control Engineering
5. **Inter Disciplinary programmes and departments involved** : Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc. –**
Certification program done in collaboration with Wiztech Automation, Chennai. titled by, PLC and SCADA Programming.
7. **Details of programmes discontinued, if any, with reasons** : Nil

8. Examination systems; Annual/ Semester/ Trimester/Choice based credit system:

Semester & Absolute credit based system

9. Participation of the department in the courses offered by other departments:

Name of the Subjects	Name of the department to which service offered
Electronic Devices & Circuits	Electronics and Communication Engineering
Signals and Systems	Electronics and Communication Engineering
Electronic Circuits-1	Electronics and Communication Engineering
Low power VLSI	Electronics and Communication Engineering
Measurement and Instrumentation	Electronics and Communication Engineering
Control Systems	Electronics and Telecommunication Engineering
Digital Signal Processing	Computer Science Engineering
Digital Systems	Computer Science Engineering
Microprocessor and its Applications	Biomedical Engineering
Fiber Optics and Laser Instrumentation	Biomedical Engineering
Automotive Electrical and Electronics	Automobile Engineering
Aircraft Electronics	Aeronautical Engineering
Electronic Devices	Chemical Engineering

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professors	04	04
Associate professors	06	06
Assistant Professors	08	08
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance.

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Tech (by research) students guiding for the last 4 years
					Teaching	Industry	
1.	Dr.A.Sahaya Anselin Nisha	M.E., Ph.D	Head & Associate Professor	Micro strip antenna	13 Years 4 Months		05
2.	Dr.G.D.Anbarasi Jebaselvi	M.E. Ph.D	Professor	Power Electronics & Drives	20 Years 6 Months	1 Year	
3.	Dr.S.Poornapushpakala	M.E., Ph.D	Professor	Instrumentation	17 Years 6 Months		
4.	Dr.S.Barani	M.E., Ph.D	Professor	Wireless Sensor Networks	16 Years 5 Months		04

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Tech (by research) students guiding for the last 4 years
					Teaching	Industry	
5.	Dr.Emalda Roslin	M.E., Ph.D	Professor	Wireless Sensor Networks	15 Years 5 Months		06
6.	Dr. Betty Martin	M.E., Ph.D	Associate Professor	Electronics & Instrumentation	13 Years		03
7.	Dr.M.Subramoniam	M.E., Ph.D	Associate Professor	Medical Image Processing	12 Years 6 Months		02
8.	Mrs.R.Narmadha	M.E(Ph.D)	Associate Professor	Wireless Communication	17 Years		
9.	Mr.B.S.Sathish	M.E(Ph.D)	Associate Professor	Electronics & Control	16 Years 6 Months		
10.	Mr.T.Jerry Alexander	M.E(Ph.D)	Associate Professor	Image Processing	14 Years 4 Months		
11.	Mrs.K.Sudheera	M.E(Ph.D)	Assistant Professor	Digital Image & Signal Processing	12 Years 6 Months		
12.	Mr.R.Immanuel Rajkumar	M.E(Ph.D)	Assistant Professor	Process Control & Industrial Automation	11 Years 8 Months		
13.	Mrs.P.Grace Kanmani	M.E(Ph.D)	Assistant Professor	Biomedical & Process Control	11 Years 6 Months		

S.No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Tech (by research) students guiding for the last 4 years
					Teaching	Industry	
14.	Mrs.T.Vijayashree	M.E(PhD)	Assistant Professor	Image Processing	9 Years 9 Months		
15.	Mrs.U.Anitha	M.E(PhD)	Assistant Professor	Image Processing	8 Years 4 Months		
16.	Mrs.J.Premalatha	M.Tech (Ph.D)	Assistant Professor	Communication Engineering	7 Years 7 Months		
17.	Ms.J.Ponnidevi	M.E (Ph.D)	Assistant Professor	Control & Instrumentation	6 Years 8 Months		
18.	Mr.V.Kalist	M.E	Assistant Professor	Control & Instrumentation	6 Years 8 Months		

Technical Staff

S.No	NAME OF THE FACULTY	DESIGNATION	QUALIFICATION	EXPERIENCE		
				ACADEMIC	INDUSTRY	TOTAL
1	Mr.N.M.Felix Antony	System Administrator	D.C.T,BCA,B.E.,	16 Years	8 Months	16 Years
2	Mr.Mohammed Salahuddin	Lab Technician	B.E	11 Years		11 Years
3	Ms.K.Maham	Lab Technician	B.E	5 Years		5 Years
4	Mr.K.Palanivel	Lab Technician	M.E	9 Years		9 Years

12. List of senior visiting fellows, adjunct faculty, and emeritus professors.

- Dr.P.S.Roy,Dean,Indian Institute of Remote Sensing (IIRS), ISRO,Bangalore
- Dr.C.B.S.Dutt,Group Director,national Remote Sensing Centre(NRSC),Hyderabad
- Dr.D.V.A.Raghavamurthy,Project Director,,Small Satellite Systems,ISRO,Bangalore
- Dr.P.E.Sankaranarayanan, Former Director,CEERI.Chennai.
- Mr.M.S.Swaminathan,Director-Vikasha electronics,Pvt. Ltd,Chennai
- Mr.Jayapandiyan ,Scientist –IGCAR,kalpakkam
- Dr.B.Venkataraman,Head,Quality Assurance Division, IGCAR,Kalpakkam
- Mr.Ilangosambasivan,Head ,Electronica and Instrumentation Division, IGCAR,Kalpakkam
- Mr.P.Swaminathan,Director, Electronica and Instrumentation Group, IGCAR,Kalpakkam
- Mr.Sundarasekaran ,Deputy Manager- MFL,Chennai
- Dr.A.Gopal, Scientist, CLRI,Chennai
- Mr.S.Vijaya Raghavan,ISA Past president,ISA

13. Percentage of classes taken by temporary faculty-programme –wise information : Nil

14. Programme- wise Student Teacher ratio

By taking into account the subject handled by the faculty members of other departments into consideration, the teacher student ratio of the department is 1:15.

U.G – B.E (Electronics and Control Engineering)

S.No	BATCH	2008-12	2009-13	2010-14	2011-15	2012-16	2013-17	2014-18
1.	Total Strength	134	111	87	115	130	50	30
2.	Number Of Men	102	93	56	92	123	41	26
3.	Number Of Women	32	18	31	23	17	09	04

PG – M.E (Electronics and Control Engineering – Part time)

S.No.	BATCH	2011-13	2012-14	2013-16	2014 - 2017
1.	Total Strength	51	11	06	05
2.	Number Of Men	39	04	02	04
3.	Number Of Women	12	07	04	01

15. Number of academic support staff (technical) and administrative staff:

Sanctioned : 04
 Filled : 04
 Actual : 04

16. Research thrust areas as recognized by major funding agencies

- Process Control
- Digital Image Processing
- Renewable Energy Sources
- Wireless communication
- Microprocessor and Microcontroller
- Optical Communication

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise** : Nil
18. **Inter-institutional collaborative projects and associated grants received** : Nil
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; Total grants received.**

S.NO.	Name of the principal Investigator	Title of The Project	Funding Agency	Year of Sanction	Amount Sanctioned(lakhs)	Duration
1.	Dr.C.Gomathy	Design of Microcontroller based Fast Response Electronics for Eddy current Flow meter	June 2010Indira Gandhi Center for Atomic Research, Kalpakkam	June 2010	Rs.7.86 Lakhs	18 Months
2.	Dr.C.Gomathy	Development of User Friendly Graphical User Interface(GUI) Test Component Development Module for ATE	QMAX	2008	Rs.28 Lakhs	2 Years

20. **Research facility / centre with State recognition, national recognition, international recognition :**

National recognition centers

Centre for Advanced Electronics Testing
 Centre for Space Technology
 Centre for Non Destructive Equipment

21. **Special research laboratories sponsored by / created by industry or corporate bodies NDT** : Nil

22. Publication

- Number of papers published in peer reviewed journals (national / international) : 319
- Monographs : Nil
- Chapters in Books : Nil
- Edited Books : Nil
- Books with ISBN with details of publishers : Nil
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : Scopus – 135, WoS - 17
- Citation Index – range / average : 1 – 37 / 3.529
- SNIP : 0.01 – 1.8
- SJR : 0.01 – 0.411
- Impact Factor – range / average : 0.59 – 5.627 / 0.324
- h-index : 05

23. Details of patents and income generated

Patent Filed

1. Dr.Subramoniam, Dr.S.Barani, Dr.Poornapushpakala, Ms.P.Gracekanmani, Adrikar, Abin A Kumar (Non Invasive tool for the assessment of rheumatoid Arthritis) – E/2/2273/2016-CHE
2. Dr.S.Barani, Dr.Subramoniam, Dr.Poornapushpakala, (A novel fuel monitoring Sytems for Automobiles) – E/2/2274/2016/CHE
3. Mrs.R.Narmadha, Dr.A.Sahaya Anselin Nisha, Dr.M.Sumathi(Fuzzy Based Load Forecasting Unit (F-Lfu) For Smart Grid) –CBR-19032-30030
4. Dr.A.Sahaya Anselin Nisha, R.Narmadha , Dr.M.Sumathi (Analysis Of Hybrid Coupled Patch Antenna For Wireless Applications)-CBR-19035-30033
5. Dr.M.Sumathi , Dr.A.Sahaya Anselin Nisha, R.Narmadha (Design and development of WDM based DAQ systems) CBR-19037-30034
6. Mr.R.Immanuel Rajkumar, Chirentan Mukarjee, Anubhav, Krishna Kumar (Robotic Limb Assistive Exoframe(ROBO RLAX) - 362/CHE/2014

24. **Areas of consultancy and income generated** : Nil
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:** Nil
26. **Faculty serving in**
- a) National committees b) International committees c) Editorial Boards
d) Any other (please specify)

Editorial Boards / Reviewer

S.NO.	NAME OF THE FACULTY	NAME OF THE JOURNAL	ISSN NO.	POSITION HELD
1.	Dr. S.Barani	1.International Journal on Intelligent Electronic Systems	0973 - 9238	Editorial Boards
		2.National Journal on Electronic sciences and Systems	0975 - 7325	
2.	Dr.S.Emalda Roslin	1.International Journal of Electronics Communication and Computer Engineering (IJECCCE)	2249 - 071X	Editorial Boards
		2. International Journal of Advanced Smart Sensor Network Systems (IJASSN)	2231 - 4482	
3	Dr.Subramoniam	1. IJST(Indian Journal of Science and Technology)	0974 - 5645	Editorial Boards
		2.Biomedical Research	0976 - 1683	
4	Ms.R.Narmadha	Journal of Computer Science	1549-3636	Reviewer
5	Dr.A.Sahaya Anselin Nisha	1. IJST(Indian Journal of Science and Technology)	0974 - 5645	Reviewer
		2. Journal of Engineering Science and Technology	1823 - 4690	

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S.NO	DATE	ORGANISED BY	TOPIC
1	March 2016	National Instruments	Instrumentation and Control Using LabView
2	14 th July 2016	Sathyabama University	Control Systems with MATLAB
3	5 th October 2015	Sathyabama University	Process Instrumentation and Control
4	22 nd August 2012	Sathyabama University	National Seminar on PLC, SCADA and DCS in Industrial Automation
5	31 st August 2012	Sathyabama University	FDP on Embedded Control of electrical Drives
6	30 th November & 1 st December 2012	VIT, Chennai	National level workshop on Recent advances in mathematical computing
7	16 th Oct 2012	Agilent Technologies	Agilent Best in Test and Measurements
8	8 th & 9 th April 2010	SRM University	Advanced Medical Application Using MIMICS Software
9	26 th to 28 th June 2010		Indian Youth Science Congress
10	3 rd March 2010	MIT, Anna University	Research Challenges In Wireless Sensor Networks
11	14 th Dec 2009	Pondicherry Engg. College	Network Simulation (Ns 2)
12	19 th Sep 2009	The Institute of Engineers	Advanced technologies in wireless communication
13	14 th Dec 2009	SAMEER, Chennai	IEEE workshop on RF Microwave circuits and system
14	21 st Dec 2009	SRM University, Chennai	Recent Advances in microwave and optical communication Technology
15	7 th & 8 th Aug 2009	Sathyabama University	Workshop on How To Do Research
16	14 th Dec 2009	Pondicherry Engg College	Network Simulator NS2

S.NO	DATE	ORGANISED BY	TOPIC
17	4th to 5th Sep 2009	SRM University	Biomedical national Symposium
18	9th -11th Dec 2009	C-WET	Wind Energy Technology
19	6th &7th Nov 2008	Kongu Engg College With DST	National Seminar On Soft Computing Technologies
20	4th to 9thAug 2008	NITTTR	Summer School on BME
21	27th & 28th Sep 2007	Sathyabama University	Workshop on VI For Process Control Application
22	27th & 28th Sep 2007	Sathyabama University	Workshop on VI For Process Control Application
23	6th &7th Sep 2007	SRM University	Data Acquisition in Biomedical
24	27th & 28th Sep 2007	Sathyabama University	Workshop on VI For Process Control Application
25	10th & 11 th Dec 2007	VIT University	SENNET'07
26	20th & 21st July 2006	TIFAC-CORE, Velammal Engg College	Workshop on Sensor Networks
27	4th to 16th Dec 2006	Anna University	FDP on Non-Linear Control System
28	20th & 21st July 2006	TIFAC-CORE, Velammal Engg College	Workshop on Sensor Networks
29	2009	SSN College of Technology	Workshop on Wireless Security
30	2010	Crescent Engineering College	Workshop on Network Security
31	2011	NITTTR, Chennai	FDP on Matlab Programming
32	28th Nov to 12th Dec'04	Sathyabama Institute of Science and technology (Deemed University)	Emerging Trends in Digital Signal Processing

S.NO	DATE	ORGANISED BY	TOPIC
33	27th & 28th Sep 2007	Sathyabama University	VI for Process Control Applications
34	10th & 11th Dec'07	VIT	Tutorial on WSN
35	7th & 8th Aug'10	Sathyabama University	ETAC'10
36	23rd & 24th Oct'10	Centre for Earth and Atmospheric Sciences	RTWDACS'10
37	18th June'11	ISA SOIND	Seminar on Wireless Technologies in Instrumentation
38	13th & 14 th Dec'11	ISA SOIND	PID Controllers and future trends
39	14th Dec 2010	National Instruments	Workshop
40	2008	NITTTR, Chennai	PIC Micro Controller
41	2009	ATI, Chennai	Workshop
42	2008	Crescent College of Engg	Workshop
43	June 2006	VELTech University	Workshop on Modern Research in Teaching methods
44	July 2007	NIT, Trichy	Workshop on Control Engineering
45	9th to 11th July 2008	Sathyabama University	Workshop on Network Simulation Using OPNET
46	December 2009	VI Mantra, National Instruments	Workshop on LABVIEW
47	4th & 5 th December 2009	Sathyabama University	Workshop on Modern Research in Engineering and Technology
48	14th December 2010	VI Mantra, National Instruments	Workshop on LABVIEW

S.NO	DATE	ORGANISED BY	TOPIC
49	27-28 Sep 2007	Sathyabama University	Workshop on VI For Process Control
50	2008	NITTTR, Chennai	FDP on Biomedical Instrumentation
51	2009	ATI, Chennai	Workshop on Allen Bradley PLC
52	2011	NITTTR, Chennai	FDP on Matlab Programming
53	2011	Sathyabama University	Workshop on Signal Processing and Wavelet Transform Toolbox in Matlab
54	9th to 10th Aug 2007	St. Joseph's college of Engineering	Workshop on process control and automation
55	2007	Ni lab view	Workshop
56	2011	NITTTR, Chennai	FDP
57	2007	Loyola College	Workshop
58	2007	Ni LabVIEW	Workshop
59	20th to 22nd Aug 2010	ICT Academy of Tamilnadu	Analog Mixed Signal & Digital Design Using Cadence Tools
60	9th to 10th Aug 2007	St. Joseph's College Of Engineering	Workshop on process control and automation
61	2008	NITTTR, Chennai	Workshop PIC Micro Controller
62	2008	Sathyabama University	Workshop on Recent Trends in Biomedical Engineering
63	2008	SRM University	National workshop on Applications of MEMS in Biomedical Instrumentation
64	2009	SRM University	Two day Intensive course on COMSOL Multi Physics Training Course

S.NO	DATE	ORGANISED BY	TOPIC
65	2010	SRM University	Hands on training on MEMS software
66	2011	SRM University	Indian Youth Science Congress
67	2011	TIDEL Park	Wireless Technologies in Instrumentation
68	2011	Sairam Engineering College	ISA Student Leadership Meet
69	2011	ISA	Process Control and instrumentation
70	2011	ISA,IIT Madras	Automation and Control
71	13th Aug 2010	Sathyabama University	Workshop on Research Problem Formulation & output

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects : 75%
- Industry or Company projects : 25%

29. Awards / recognitions received at the national and international level by

		National Level	International Level
Staff		3	1
Students	(Extra / Cocurricular)	28	8
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
1	International Conference on Emerging Novolties and Vista in Space technology and Applications	27, 28 & 29 th Februray 2016	ISRO	Ms.U.Anitha – Best Paper Award
2	Emerging Trends in Networking, Automation and Control Technologies, ENACT 2013	3 rd & 4 th October 2013	CSIO & ISA South India Section	
3	FTP on Lab view for biomedical applications	Oct 1 st and 2 nd 2013	ISA South India Section	
4	Emerging Trends in Networking, Automation and Control Technologies, ENACT 2014	04 -05 Dec'14	CSIO &ISA South India Section	
5	Emerging Trends in Networking, Automation and Control Technologies, ENACT 2012	4 th & 5 th October 2012	CSIO &ISA South India Section	

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
6	QUEDAR'11	2 nd & 3 rd March 2011	ISA South India Section	
7	Emerging Trends in Networking, Automation and Control Technologies, ENACT 2011	14 th & 15 th September, 2011	ISA South India Section	Ms.S.Poornapushpakala- Best Paper Award
8	Real time Weather Data Analysis and Climate Studies, RTWDACS'10	23 rd & 24 th October 2010	Ministry of Earth Sciences	
9	Emerging Trends in Automation and Control, ETAC 2010	7 th ,8 th of August, 2010	ISA South India Section	
10	Emerging Trends in Networking, Automation and Control Technologies, ENACT 2010	4 th &5 th October 2010	CSIO &ISA South India Section	Mrs.V.Manonmani - Best Paper Award

31. **Code of ethics for research followed by the departments (as per the university norms)**

Department follows the code of ethics, Rules and Regulations as per the UGC Ph.D. Regulations.

32. Student profile programme-wise

a. Student strength

Name of the Programme	Application received	Batch	Selected	
			Male	Female
B.E – E&C	2088	2010-14	56	31
	2645	2011-15	92	23
	3500	2012-16	123	17
	1375	2013-17	41	09
	800	2014-18	26	04
M.E – E&C (Part Time)	11	2012-14	04	07
	06	2013-16	02	04
	05	2014-17	04	01

b. Pass Percentage

Name of the Programme	Year	Total Number of Students	Pass Percentage
B.E – E&C	IV year	50	53%
	III Year	30	50%
M.E – E&C (Part time)	III Year	05	100%

33. Diversity of students : Nil

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

- GATE -03
- GRE-11
- TOEFL-10

35. Student progression (Placement for Batch 2012-2016)

Student progression	Percentage against enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed	
• Campus selection	77.5%
• Other than campus recruitment	
Entrepreneurs	22.5%

36. Diversity of staff

Percentage of faculty who are graduates	PG
From the same university	62%
From other universities within the State	38%
From universities from other States	Nil
From universities outside the country	Nil

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Ph.D

2015 – 2016	: 01
2014 – 2015	: 02
2013 – 2014	: 02
2012 – 2013	: 02

38. Present details of departmental infrastructural facilities with regard to

a) Library

No. of books	No. of text books	No. of references	Cost of all The Books	No.of Journals
14,419	12,942	47	Rs. 37,29,931	Nil

b) Internet facilities for staff and students : Available (24 Hrs)

c) Total number of class rooms : 03

d) Class rooms with ICT facility : Available (1 Class Room)

e) Students' laboratories

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1.	Process Control Laboratory	1900 sq.ft	42.22 Lakhs
2.	Transducers and Measurements Laboratory	1900 sq.ft	23.68 Lakhs
3.	Simulation Laboratory	1150 sq.ft	49.15 Lakhs
4.	Circuits & Devices Laboratory	1150 sq.ft	8.2 Lakhs
5.	Analog & Digital Circuits Laboratory	1150 sq.ft	8.26 Lakhs

39. List of doctoral, post-doctoral students and Research Associates

a) from the host institution/university :5

b) from other institutions/universities :7

40. **Number of post graduate students getting financial assistance from the university** : Nil

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- Getting Provisional affiliation to start a new course from academic council
- Guidelines to the management of all Board of studies to frame, formulate and approve the syllabus
- Receiving approval from Vice chancellor /Registrar/Controller of examinations
- It should be revised with sufficient qualified faculty members and sufficient infrastructure recommended.

42. **Does the department obtain feedback from?**

a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. Feedback received from the faculties is brought before the Board of studies meeting to revise the curriculum.

b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Students on staff – every semester feedback is obtained from the students and the findings are communicated to the faculty individually. Guidance and training is given to the staff members for their improvement through HOD of the department.

c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

- Illustrations from Industries are the members of the Board of studies.
- Alumni feedback is taken into deliberation to enhance the training needs of the department and student development programme.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Students Batch	Position
1.	Sujay Singh	2011-2015	ONGC, Mumbai.
2.	Prasanth	2010-2014	Project Engineer , Compage Automation System Pvt. Ltd
3.	Vivek Verma	2008-2012	Senior Firmware Engineer, Autosar Basch, India
4.	V.Barath	2005-2009	Senior Manager, Virtusa
5.	Sathyam verma	2007-2011	Enzen Technologies, SAP functional consultant
6.	Aditya Prakash	2004-2008	Cognizant Tech
7.	Prabhatkumar Srivastava	2003-2007	Team Manager, Wipro
8.	Jimchacko	2002-2004	Senior system analyst ,Infosys .
9.	V.Ashoke Kumar	2002-2004	Tata consultancy systems

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lectures	41
Workshops	13
Seminars	13

45. List the teaching methods adopted by the faculty for different programmes.

- The teaching method incorporate Lecture, Group discussion, Individual presentation, Assignments seminars, Workshop, Conferences, Brainstorming,
- Case study, integrated co-teaching and tutorials.
- In addition to the regular classroom learning and novel teaching methods, field trips, Industrial visits, In-service training were arranged for the students.
- A few minutes in every hour is allotted for previous class portion revision and doubt clarification.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

By Continuous Assessments, Assignments, quiz, tutorials and counselling.

47. Highlight the participation of students and faculty in extension activities.

Faculty members and Students participated in the extension / Industrial visit.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Organizing workshop on Excel programme and symposiums.
- Every student is asked to submit a mini project
- Students are obliged to present technical paper in symposiums, conferences and journals.
- Department students are partaking in the design of Attitude control and determination system of “SATHYABAMA SAT”.
- Through student development cell many club activities such as Robotics club, Mathematics club, Science club etc are being motivated.
- Entrepreneurship Development Cell (EARN WHILE YOU LEARN) is initiated for the beneficiary of the students.

49. State whether the programme / department is accredited/ graded by other agencies? If yes, give details.

- Declared as category ‘A’ University by Ministry of Human Resource and Development (MHRD), Government of India
- Accredited by NAAC with B++Grade
- ISO 9001:2008 certified for professional quality management

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- Department is an integral part of the “Sathyabama Satellite” programme.
- Acquaintance of the faculty Members has been shared through technical summer camps.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths:

- Research Work
- Planning and Execution of the work with realistic outlook

Weakness:

- More number of projects has been initiated among the students in the emerging areas like renewable energy sources, real time microcontroller based data acquisition and biomedical applications.

Opportunities:

- Research and Training in collaboration with governmental and non- governmental organizations.

Challenges:

- To bring funded projects from various funding Agencies.
- To have more Scopus indexed/ highly refereed Journals.
- To acquire more number of patents.
- To achieve 100 % Placement for all registered eligible students.
- To achieve 100 % Result.
- To promote all the staff members to upgrade their qualification.

52. Future plans of the department.

- Research and development in various disciplines.
- Many number of publications and innovative projects.
- Motivation among the students to promote novel projects in the promising fields like renewable energy, real time microcontroller based data acquisition, low power VLSI, satellite engineering and biomedical applications.
- Encouraging students to partake national and international level technical symposiums, workshops, poster presentations and competitions to acquire and share the knowledge.

3. SCHOOL OF MECHANICAL ENGINEERING

1. **Name of the Department** : Department of Mechanical Engineering
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university?** Yes
School of Mechanical Engineering – Mechanical Engineering
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
 - UG Course**
 - Bachelor of Engineering in Mechanical Engineering
 - Bachelor of Engineering in Mechanical Engineering – Part Time
 - PG Course**
 - Master of Engineering in Thermal Engineering
 - Master of Engineering in Engineering Design
 - Ph. D. Programme**
 - Doctor of Philosophy
 - Masters of Technology (By Research)
5. **Inter Disciplinary programmes and departments involved** : B.E - CSE (Dual Degree Programme)

6. **Courses in collaboration with other universities, industries, foreign institutions, etc. :** NIL

7. **Details of programmes discontinued, if any, with reasons :** NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester, Absolute Credit based systems (2010 Regulations), Choice based credit system (2015 Regulations)

9. **Participation of the department in the courses offered by other departments**

S.NO.	SUBJECT TITLES	NAME OF THE DEPARTMENT
1.	Applied thermodynamics, Solid and fluid Mechanics	EEE
3.	Applied thermodynamics, Material science and Solid Mechanics	E&C
4.	Engineering Graphics	ETCE,CSE
5.	Applied thermodynamics, Solid and fluid Mechanics	E& I

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	04	04
Associate professors	10	10
Assistant Professors	19	19
Teaching Assistant	02	02

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Phd/ M.Tech students guided for the last 4 years
1.	Dr. A. KRISHNAMOORTHY	Ph.D	Professor & Head	Composite Materials	35	7 Guiding
2.	Dr. S. RAMACHANDRAN	Ph.D	Professor	Thermal barrier coatings	25	3 Completed 6 Guiding
3.	Dr. K. N. BALAN	Ph.D	Professor	Thermal Spray coatings	35	--
4.	Dr. S. RAVIKUMAR	Ph.D	Professor	Welding Technology	26	--
5.	Mr. R. DEVARAJ	M.E.,(Ph.D)	Associate Professor	I C Engineering	21	--
6.	Mr. S. P. VENKATESAN	M.E.,(Ph.D)	Associate Professor	Thermal Engineering	21	--
7.	Mr. C.JOTHISHANMUGAM	M.E.,(Ph.D)	Associate Professor	CAD	18	--
8.	Mr. S.LAKSHMISANKAR	M.E.,(Ph.D)	Associate Professor	Product Design and Development	20	--
9.	Dr. G. SENTHILKUMAR	Ph.D	Associate Professor	CFD	16	01 Guiding
10.	Mr. V.SAIKRISHNAN	M.E.,(Ph.D)	Associate Professor	Thermal Engineering Thermal Energy Storage	12	--
11.	Dr. S. PADMANABHAN	Ph.D	Associate Professor	Automobile	18	01 Guiding
12.	Mr. J.JAYAPRABAKAR	M.E.,(Ph.D)	Associate Professor	Thermal Engineering IC Engines Alternate Fuels	15	--

S.No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Phd/ M.Tech students guided for the last 4 years
13.	Mr. J. HEMANANDH	M.E.,(Ph.D)	Associate Professor	CAD IC Engines	15	--
14.	Mr. J.PARTHIBAN	M.E.,(Ph.D)	Assistant Professor	Product Design	11	--
15.	Dr. S. GANESAN	Ph.D	Associate Professor	Alternate fuels	12	--
16.	Mr. S. SENTHILKUMAR	M.E.	Assistant Professor	Thermal Engineering Combustion Engineering Renewable Energy	11	--
17.	Mr. M. VIDYASAGAR	M.E.	Assistant Professor	Manufacturing Engineering	7	--
18.	Mr. N. BEEMKUMAR	M.E.,(Ph.D)	Assistant Professor	Energy Engineering Solar Energy Thermal Energy Storage	10	--
19.	Mr. R.SIVA	M.E.,(Ph.D)	Assistant Professor	Lean Manufacturing	6	--
20.	Mr. M. PURUSOTHAMAN	M.E.,(Ph.D)	Assistant Professor	Refrigeration and Air Conditioning Solar Dryer	9	--
21.	Mr. T. ARUNKUMAR	M.E.,(Ph.D)	Assistant Professor	Engineering Design Surface Engineering Corrosion Science	7	--
22.	Mr. THARAMAI KANNAN	M.E.,(Ph.D)	Assistant Professor	Product Design & Manufacturing	9	--
23.	Mr. A. K. KARTHIK	M.E.	Assistant Professor	Energy Engineering Energy Audit	7	--

S.No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Phd/ M.Tech students guided for the last 4 years
24.	Mr. T. MURALITHARAN	M.E.	Assistant Professor	Manufacturing Engg	9	
25.	Mr. M. ANISH	M.E.,(Ph.D)	Assistant Professor	Thermal Engineering Renewable Energy Nuclear Engineering	4	
26.	Mr. POOVANNAN ASOKAN	M.E.	Assistant Professor	Product Design	4	
27.	Mr. JEYA JEEVAHAN	M.E.,(Ph.D)	Assistant Professor	CAD/CAM	5	
28.	Mr. V. SRIRAM	M.E.,(Ph.D)	Assistant Professor	Energy Engineering	3	
29.	Mr. R. B. DURAIRAJ	M.E.,(Ph.D)	Assistant Professor	Robotics	3	
30.	Mr. G. MAGESHWARAN	M.E.,(Ph.D)	Assistant Professor	Manufacturing Engineering Heat Transfer	7	
31.	Mr. S. K. RAMAKUMAR RAJA	M.E.	Assistant Professor	Engineering Design Finite Element Analysis	4	
32.	Mr. BRITTO JOSEPH	M.E.,(Ph.D)	Assistant Professor	Manufacturing Engineering	7	
33.	Mr. MANI KUNJAN	M.E.	Assistant Professor	Engineering Design	1	
34.	MR. G. SELVARASAN	M.E.	Teaching Assistant	CAD	1	
35.	MR. PERUMALSAMY	M.E.	Teaching Assistant	CAD	1	

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors**

1. Dr. G. Krishnamoorthy, Professor Emeritus, San Diego, State University. USA
2. Dr. R. Mahadevan, Group Technology Director, India Pistons Ltd. Chennai.
3. Mr. Jeevandass, Deputy General Manager (AF), Ashok Leyland, Chennai
4. Dr. J.M. Mallikaarjuna, Professor, IIT, Madras, Chennai.
5. Dr. Muthuveerappan, Professor, IIT Madras, Chennai.
6. Dr. K. Veluchamy, Scientist, IGCAR, Kalpakkam
7. Dr.J.S.Mathur, NAL , Bangalore
8. Dr.Kannan Sivapragasam, Professor , St Coluds University, USA
9. Dr. Gomathinayagam, Director, NWET, Chennai
10. Dr. Seetharaman, Scientist, CVRDE, Chennai

13. **Percentage of classes taken by temporary faculty-programme –wise information** : Nil

14. **Programme- wise Student Teacher ratio**

The staff student ratio of the department is maintained at 1:15 by considering subjects handled by faculty of other departments

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Technical staff	08	08
Administrative staff	Nil	-
Others	Nil	-

16. **Research thrust areas as recognized by major funding agencies**

- Unemployed Youth – MSME
- Self Help Group – TNCDW, NABARD, EDI
- Technology based Incubates – DST
- Students – EDI, MSME

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S. No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr S Ramachandran	Investigations of Flow Distribution in Main Vessel Cooling System and Optimization of Spillway Weir to Mitigate Gas Entrainment in a Fast Reactor	IGCAR, Kalpakkam	2010	Rs.19,87,000/-	September 2010 to September – 2013- 3 years (completed)
2.	Dr S Ramachandran	Development of Pressure Drop Devices for LMFBR Sub assemblies	IGCAR, Kalpakkam	2010	Rs.19,73,500/--	July 2010 to February 2013- 3 years (completed)
3.	Dr S Ramachandran	Experimental study on heat transfer between integrated safety vessel along with thermal insulation and reactor vault	IGCAR, Kalpakkam	2013	Rs.24,81,000/-	December 2013 to December 2014(On going)

S. No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
4.	Dr S Ramachandran	Polyurea coating for realization of self sealing fuel tank for Armoured Fighting Vehicles (AFVs)	CVRDE – Avadi- Chennai	2014	Rs 9, 61,350/-	Under progress(18 months)
5	Mr. J. Jayaprabakar	Technological Socio Economical & Eco (TSEE) friendly Hydrogen LPG Two Stroke Engine.	Department of Science and Technology- Technology Business Incubators (DST-TBI) – Govt. of India	2013	Rs. 1,41,000/-	August 2013- July 2015 (completed)
Total:					Rs. 75,43,850/-	

18. **Inter-institutional collaborative projects and associated grants received** : NIL

a) National collaboration b) International collaboration

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S. No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr. Ramesh Babu Dr S Ramachandran	Cascaded multi temp latent heat solar thermal storage device	DST	2004	13,20,000(Granted 17,40,000)	2004-2005
Total:					13,20,000(Granted 17,40,000)	

20. **Research facility / centre with**

1. Center for Nano Science and Nano Technology - IGCAR – National Recognition
2. Center for Space technology
3. Center for Remote Sensing

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NIL22. **Publications:**

Number of papers published in peer reviewed journals (national / international) : 252

Monographs : Nil

Chapters in Books : Nil

Edited Books : 20

Books with ISBN with details of publishers : 20

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : SCOPUS – 182, WOS - 6
 Citation Index – range / average : 1 – 36 / 2
 SNIP : 0 – 1.584
 SJR : 0 – 1.111
 Impact Factor – range / average : 0 – 4.068
 h-index : 2

23. **Details of patents and income generated** :

Sl. No.	Name of Investigators	Title of the Invention	Application Number	Status of the Patent
1.	Dr. A. Krishnamoorthy Mr. S. Arasu	A Novel Method of Determining Wear Volume of Common Materials	1381/CHE/2012	Applied on 05.04.2012 Application Published & Awaiting Examination
2.	Dr. S. Ramachandran Mr. Akshaay Ganesh Mr. G. Varghese Mr. Clint Sebastin	Reciprocating Mechanism	1719/CHE/2012	Applied on 03.05.2012 Application Published & Awaiting Examination

Sl. No.	Name of Investigators	Title of the Invention	Application Number	Status of the Patent
3.	Mr. J. Parthiban Mr. Habel George Varghese Mr. Akshaay Ganesh Mr. Clint Sebastin	Portabale Grain Dehusker and Miller	1720/CHE/2012	Applied on 03.05.2012 Application Published & Awaiting Examination
4.	Dr. S. Ramachandran Dr. A. Anderson Mr. Ashish Yadav Mr. Yohan Simon Mr. Peeris Greenwell	Dual Parabolic Hybrid Solar Collector	6422/CHE/2014	Applied on 17.12.2014 Application Not yet Published
5.	Dr. S. Ramachandran Mr. Ashish Yadav Mr. Yohan Simon Mr. Peeris Greenwell	Multiple Reflecting Hybrid Solar Collector	6424/CHE/2014	Applied on 17.12.2014 Application Not yet Published
6.	Dr. S. Ramachandran Mr. Ashish Yadav Mr. Yohan Simon Mr. Peeris Greenwell	Hybrid Solar Collector	6425/CHE/2014	Applied on 17.12.2014 Application Not yet Published

24. **Areas of consultancy and income generated** : Re-engineering / Rs.50, 000 Shri Madura Rubber, Chennai

25. **Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad** : Nil

26. **Faculty serving in**

- a) National committees : Dr. A. Krishnamoorthy, Vice Chairman, IIPE, Tamil Nadu centers.
 b) International committees : NIL
 c) Editorial Boards :
 d) Any other (please specify) :

Name of the Faculty	Journal Name	Editor/ Reviewer Committee Member	Country
Dr.A.Krishnamoorthy	<ul style="list-style-type: none"> • Measurement • Journal of Engineering Science and Technology • Journal of Advance Manufacturing Systems • Australian journal of mechanical engineering • Materials and Manufacturing process 	Reviewer Reviewer Reviewer Reviewer Reviewer	USA USA Singapore Australian
Dr.S.Ramachandran	<ul style="list-style-type: none"> • International Journal of Ambient Energy • Procedica Polytechnica in Civil Engineering 	Reviewer Reviewer	UK
Dr.G.Senthilkumar	<ul style="list-style-type: none"> • International Journal of Ambient Energy 	Reviewer	UK
Dr.S.Padmanabhan	<ul style="list-style-type: none"> • ASTM Journal of Testing and Evaluation • Mechanism and Machine Theory • Engineering Optimization • Journal of Materials science and applications • Ameican Journal of Science and Technology 	Reviewer Reviewer Reviewer Reviewer Reviewer	USA USA UK USA USA
Mr.J.Jayaprabakar	<ul style="list-style-type: none"> • International Journal of Ambient Energy 	Reviewer	UK
Mr.N.Beemkumar	<ul style="list-style-type: none"> • International Journal of Ambient Energy 	Reviewer	UK
Mr.R.B.Duraiaraj	<ul style="list-style-type: none"> • International Journal of Engineering and Technology • Current development in artificial intelligence • International Journal of Scientific & Technology Research • International Journal of Advances in Engineering and Technology • International Journal of Recent Engineering Science (IJRES) 	Reviewer Editorial Board Editorial Board Research Volunteers Reviewer	India India India India India

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Organized by Sathyabama University :

S.No	Date	Name of the Program	Topic
1	8 TH Feb 2013	Workshop	IC Engines & Alternate Fuel
2	12-13 Sep 2012	FDP	Research Techniques using SPSS
3	7 th Sep 2011	Workshop	Trends in Material Joining Technologies
4	4-5 Aug 2011	FDP	Art of Writing Thesis and Research Papers
5	13-15 Dec 2010	Workshop	Mathematical And Computational Fluid Dynamics
6	02-03 Aug 2008	Workshop	Sensor Web Enablement
7	February 28 , 2014	Workshop	Bio Mechanics, Implant Surgery Bio Materials
8	February 20 , 2016	Workshop	Composite materials

Organized by Other Institutions/Organizations:

S.No	Date	Name of the Program	Topic
1	Feb 23-Mar03, 2007	Workshop	Finite Element Analysis
2	Sep 28-29, 2007	Workshop	Vibration and Noise for Practicing Engineers
3	Sep 6-8, 2008	Workshop	Electron Microscopy (EM-2008)
4	5 th Feb 2010	Workshop	Advance Measurement Techniques For Metal Cutting Research
5	8 th Dec 2012	Workshop	Role of Nano Materials in Science of Engineering
6	25 th Feb 2012	Seminar	Alternate Fuel
7	7-8 Aug 2012	Workshop	Recent Trends in Manufacturing Process
8	9 th Aug 2012	Workshop	Research

S.No	Date	Name of the Program	Topic
9	7-19 Nov 2011	FDP	Processing and Applications of Advanced Composite Materials
10	7 days in June 2012	FDP	Computational Fluid Dynamics
11	18-22 July 2011	FDP	Multivariate Data Analysis for Management Research
12	18-29 Nov 2013	FDP	Renewable Energy Based Cooling Systems – Opportunities Challenges
13	23-25 Aug 2012	Workshop	Solar Energy Technologies
14	24 th Aug 2012	Seminar	Energy & Exergy Analysis of Engineering System
15	14 th Oct 2011	Seminar	Recent Trends in R&AC
16	3-4 Jan 2014	Workshop	Material Characterization Techniques

28. **Student projects**

- Percentage of students who have done in-house projects including inter- departmental projects : 40%
- Percentage of students doing projects in collaboration with other universities/industry / institute : 60%

29. **Awards / recognitions received at the national and international level by :**

		National Level	International Level
Staff		30	2
Students	(Extra / Cocurricular)	4	4
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No	Conference Name		Funding Agency	Held On	Topics Covered
1.	ECHDEM '07	International Conference on Engineering Challenges in Design and Manufacturing Technologies	-	Nov. 28-30, 2007	Design Manufacturing
2	MECHIGUN'09	MECHIGUN'09 - National Level Technical Symposium	-	Aug. 24-25 2009	Paper presentation 3D Modeling (Pro-E) Ad zap Quiz Shipwreck Debate
3.	NCETME '10	National Conference on Emerging Trends in Mechanical Engineering	DST	Aug 9-10, 2010	Design Manufacturing Thermal
4.	FAME '10	International Conference On Frontiers in Automobile & Mechanical Engineering	Ashok Leyland	Nov 25-27, 2010	CFD Design For Assembly FEM Aerodynamics Nano Technology Rapid Prototyping
5.	ICC-ECO	International conference on Impact of Climate Change on Coastal Ecosystem ICC-ECO 2011	WHO, UNESCO United States Forest Service (USFS)	Nov10-11, 2011	Coastal Biodiversity Climate Change and GIS Applications, Coastal Resources Management
6.	NCE TIME'12	National Conference on Emerging Trends in Mechanical Engineering [NCE TIME'12]	-	March 8 – 9, 2012	Design, Manufacturing. Thermal
9	FAME 2016	2 nd International Conference on Frontiers in Automobile & Mechanical Engineering – FAME 2016	CVRDE	July 07-09, 2016	Design Aerodynamics Nano Technology Rapid Prototyping Thermal Engineering Renewable Energy

31. **Code of ethics for research followed by the departments:**

- Openness
- Maintain Confidentiality
- Give credit and proper acknowledgement to the contributors
- Mindful of plagiarism

32. **Student profile programme-wise:**

a) Profile

Name of the Programme (refer to question 4)	Application received	Selected	
		Male	Female
2011-2015	7868	287	-
2012-2016	10504	392	3
2013-2017	10296	398	-
2014-2018	10136	367	1
2015-2019	10546	408	4
2016-2020	10243	312	-
2011JUN	625	200	
2012JAN	852	345	
2012JUN	575	241	
2013JAN	672	239	
2013JUN	426	131	
2014JAN	374	150	
2014JUN	270	116	1
2015JAN	242	64	
2015JUN	314	89	
2016JAN	216	54	
2016JUN	346	80	

b) University Results

Name of the Programme (refer to question 4)	No. of Students	Pass Percentage
2011-2015	287	65
2012-2016	395	76.45
2013-2017	394	53.81
2014-2018	368	52.45
2015-2019	405	68.64
2011JUN	200	68
2012JAN	345	65
2012JUN	241	62
2013JAN	239	79.08
2013JUN	131	59.54
2014JAN	150	43.33
2014JUN	117	27.35
2015JAN	64	37.50
2015JUN	90	45.55
2016JAN	54	68.52

33. Diversity of students : NA

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. :

S.No	Name of the Examinations	No. of Students cleared (Year wise)
1	GATE	2010 - 2014 – 3 Nos

35. Student progression

BATCH	NO. OF STUDENTS CLERAED		
	GRE	IELTS	TOFEL
2009-2010	2	3	2
2010-2011	3	3	2
2011-2012	1	6	1
2012-2013	3	5	0
2013-2014	21	10	6
2014-2015	14	15	7
2015-2016	7	11	4
2016-2017	3	2	-

Student progression	BATCH	Percentage against enrolled
U.G TO P.G	2009-2010	7
	2010-2011	8
	2011-2012	8
	2012-2013	8
	2013-2014	37
	2014-2015	36
	2015-2016	22
	2016-2017	5

Student progression	Percentage against enrolled
PG to M.Phil.	NA
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	(Placement)
• Campus selection (2016 batch)	91.45
• Other than campus recruitment	5
Entrepreneurs	10

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	26% (9 out of 35)
from other universities within the State	74% (26 out of 35)
from universities from other States	NIL
from universities outside the country	NIL

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

07 Staff members during 2011-2016

38. Present details of departmental infrastructural facilities with regard to

a) Library

NO. OF BOOKS		COST (Rs.)
NO. OF TEXT BOOK	NO. OF BOOK TITLES	
17,712	68	70,84,909/-

b) Department Laboratories

S.No	Name of the Laboratory	Area in Square Metre	Cost of Building Rs.2000/ Sq.ft	Cost of Equipments
1	Dynamics Lab	176.89	38,08,000	12,00,000
2	Material Testing lab	262.08	56,42,000	25,00,000
3	Thermal Lab	447.42	96,32,000	43,00,000
4	Fluid Mechanics and Machinery Lab	495.38	1,06,64,000	37,00,000
5	Computational Fluid Dynamics lab	133.78	28,80,000	40,00,000
6	Computer Aided Design lab	426.24	91,76,000	50,00,000
7	Mechatronics Lab	208.10	44,80,000	-

39. **List of doctoral, post-doctoral students and Research Associates**

- a) From the host institution/university : 20
- b) From other institutions/universities : 39

40. **Number of post graduate students getting financial assistance from the university. :** NA

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Yes, from time to time need assessment was undertaken by the department. Based the industry demand new subjects are included. Skill based analysis is carried out on a regular basis & requirement were highlighted in the curriculum. Deliverables are clearly chalked out in such a manner that student & faculty would strive to reach the target specified.

42. **Does the department obtain feedback from**

a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, based on the feedback given by the faculty on curriculum, new elective papers were added, seminar hours are introduced as part of the regular time table and special classes were planned for students to improve their academic performance.

b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Based on feedback given by the students about the staff, they have changed the teaching methodology and introduced more industry salient subjects. The department has added elective papers and based on the comment. Conceptual treatment is given predominant position relying upon feed back as provided by the students

c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

The department has strong alumni cell. They have rendered various services like series of guest lecturers, arranged industrial visits; based on the current demand of the industrial trend they requested the dept to upgrade the course curriculum. As they are brand ambassadors, interactive meetings were held from time to time to indulge in SWOT analysis

43. **List the distinguished alumni of the department (maximum 10)**

Sl.No.	Name of the Student	BATCH	Designation
1.	Mr. Meenakshisundaram	1988 -1992	Team Leader - Saint Gobain
2.	Mr .Janarthanan. B	1988 -1992	Principal - Sree Sastha College of Engineering
3.	Mr. Boopathi Rajantharan	1991 -1995	Director - Cognizant
4.	Mr. David Solomon	1994 -1998	Additional Director – NIWE
5.	Mr. Loganathan CG	1995 -1999	Director – Sutherland
6.	Mr .Dhatchinamoorthy	1996 -2000	COO – SEP Energy
7.	Mr. Rose Venkatesan	1997 -2001	Social Worker – Transgender Community
8.	Mr.Suresh.R.E	1995-1999	Manger,Mphasis
9.	Mr. Arvind	2007 -2011	Engineer,Motherson Sumi
10.	Mr.Raja .V	2010-2014	Engineer,Caterpillar

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lectures	52
Workshops	
Seminars	

45. **List the teaching methods adopted by the faculty for different programmes.**

- Class room teaching
- Assignments
- Lab experiments in correlation with theoretical subjects
- Expert Lectures
- Seminar
- Industrial visit & ExhibitionsSoft skills development

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The department has got a set of quantified goals and objectives in terms of pass % & campus placements to be achieved for every academic year. A review is conducted for at the end of academic year to monitor & analyze the outcomes and rectification will be done if it is not achieved as per the quantified goals and objectives. Analysis of shortcomings is done to the minutest details. Suggestions from every stake holder is incorporated to deliver industry ready & employable graduates.

47. **Highlight the participation of students and faculty in extension activities.**

- Enrichment program on practical skills to industrial employees by experts
- SAE related competition.
- Motivating students to take part in curricular ,co & extra curricular activities
- Encouraging students to take up industry relevant & innovative projects
- Assimilating meritorious students in to In house projects
- Participated in the Blood Donation Camp

48. Give details of “beyond syllabus scholarly activities” of the department.

Department had taken up live projects in the form of funded projects. This resulted in faculty interacting with experts in various fields. This enrichment in knowledge base is passed on to the students during class interactions. It is ensured that meritorious students are made better than their peers from the other academic institutions. Some of the Faculty had taken up the work of counseling students with poor academic grades with a view to reduce back logs in their academic performance.

49. State whether the programme / department is accredited/ graded by other agencies? If yes, give details.

- NBA accreditation for the period of 5 years with A grade
- Declared as A category by task force appointed by MHRD
- Certified as ISO 9001 – 2008 compliant institution by DNV Netherlands

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

With active cooperation & collaboration from IGCCAR the dept has completed projects titled 'Investigations of Flow Distribution in Main Vessel Cooling System and Optimization of Spillway Weir to Mitigate Gas Entrainment in a Fast Reactor' & 'Development of Pressure Drop Devices for LMFBR Sub assemblies'. These completed projects delivered to the Nationally Reputed institute IGCCAR resulted in a body of knowledge in the field of applied nuclear engg. When the nation is looking for indigenously developed techniques & procedures, the dept was able to develop & deliver techniques which are cost effective.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

STRENGTHS

- Adequate Faculty as per statutory requirements
- Experienced and Qualified faculty Drawn from various streams
- Comprehensive and Up to date Syllabus
- Continuous Management Support and Motivation
- Infrastructure of highest order

WEAKNESS

- Minimum number of Consultancy services as the industry is not ready to exploit locally developed techniques
- Need of MOU with international Industry, academic bodies

OPPORTUNITIES

- Internationally reputed Industry and Institution interaction are need of the hour
- Industry ready students for 100% assimilation
- Funding from international bodies
- Good alumni network
- Reputation & good will built on decades of service rendered to the Society

CHALLENGES

- Recent & varying trends in the core field
- Fluctuations in campus placements

52. Future plans of the department.

- Designing the curriculum to ensure 100% employability
- Inculcate Entrepreneurship skills among students
- Expansion of infrastructure to suit industry needs
- Encouraging students to be part of international level competitions
- Infrastructure on par with internationally reputed academic institution
- Providing end to end solutions for local industry
- Be a tertiary center for all streams of Mechanical engg
- Churning out graduates with high sense commitment & participation to the society

1. **Name of the Department** : DEPARTMENT OF MECHANICAL & PRODUCTION ENGINEERING
2. **Year of establishment** : 1993
3. **Is the Department part of a School/Faculty of the university?**
Yes, Faculty of University – Faculty of Mechanical Engineering
4. **Name of the programmes offered:**
 - **UG :**
B.E – MECHANICAL & PRODUCTION ENGINEERING
 - **PG:**
M.E – COMPUTER AIDED DESIGN (Regular)
M.E – COMPUTER AIDED DESIGN (Part Time)
M.E – METALLURGICAL AND MATERIAL SCIENCE ENGINEERING
 - **Ph.D:**
M.Tech (By Reasearch)
Doctorate of Philosophy
5. **Inter Disciplinary programmes and departments involved** : Yes, Dual courses are conducted in cooperation with department of Computer Science Engineering.
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Auto desk inventor – A course for CAD modeling in collaboration with KKM Software – Chennai.

7. **Details of programmes discontinued, if any, with reasons:** NIL
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system:**

Semester wise examinations

Absolute credit based system (2010 regulation)

Choice based credit system (2015 regulation)

9. **Participation of the Department in the courses offered by other departments:**

Sl. No	Name of the course	Service given to Department
1	Material Technology	E&I
2	Resource Management	Chemical
3	Basic Mechanical Engineering	E&I

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others):**

	Sanctioned	Filled
Professor	4	4
Associate professors	1	1
Assistant Professors	13	13

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance:

SI No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Phd/ Mphil students guided for the last 4 years
1	Dr.S.Prakash	M.E.,Ph.D	Professor & Dean	CAD	24	8 Guiding
2	Dr. E V V Ramanamurthy	M.Tech,Ph.D.	Professor& Head	Machine Design	26	Nil
3	Dr. T. N. Valarmathi	M.E., Ph.D	Professor	Composite Materials	28	3 Guiding
4	Dr.B.Kanimozhi	M.E.,Ph.D	Professor	Thermal Energy	15	7 Guiding
5	Mr.K.S.Sridhar Raja	M.E., (Ph.D)	Associate Professor	Composite Material	13	Nil
6	Mr.S.Sivasaravanan	M.E., (Ph.D)	Asst. Professor	Composite Material	12	Nil
7	Mr.J.JeswinArputhaBalan	M.E.,M.B.A (Ph.D)	Asst Professor	Manufacturing Engineering	11	Nil
8	Mrs.M.Sangeetha	M.E., (Ph.D)	Asst.Professor	Composite Material	8	Nil
9	Dr.C.Shanjeevi	M.E., (Ph.D)	Asst.Professor	Metalurgy, Welding Tecnology	8	Nil
10	Mr.S.Porchilaamban	M.E., (Ph.D)	Asst.Professor	Computer Integrated Manufacturing	5	Nil
11	Mrs. J. Lilly Mercy	M.E., (Ph.D)	Asst.Professor	Composite Material	8	Nil
12	Mr.J.R.Deepak	M.E., (Ph.D)	Asst.Professor	Computer Aided Design	9	Nil
13	Mr.S.Prabhu	M.E (Ph.D)	Asst.Professor	Manufacturing Engineering	2	Nil

SI No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Phd/ Mphil students guided for the last 4 years
14	Mr.J.Senthil Kumar	M.E (Ph.D)	Asst.Professor	Production Engineering	9	Nil
15	Mr.K.Arun Kumar	M.E	Asst.Professor	Computer Aided Design	6	Nil
16	Mr.D.Kumaravel	M.E(Ph.D)	Asst.Professor	Manufacturing Engineering	3	Nil
17	Mr. N Ilangoan	M.E	Asst. Professor	Thermal Engineering	10	Nil
18	Mr. Jayaprakash	M.Tech	Asst. Professor	Engineering Design	07	Nil

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**

1. Dr.Sathik, Ex VC, Madras University, Chennai, India
2. Dr. R. Mahadevan, Group Technology Director, India Pistons Ltd. Chennai.
3. Dr. Thyagarajan Chairman, IEEE Madras Section, Chennai.
4. Mr. Jeevandass, Deputy General Manager (AF), Ashok Leyland, Chennai
5. Dr. J.M. Mallikaarjuna, Professor, IIT, Madras, Chennai.
6. Dr. Muthuveerappan, Professor, IIT Madras, Chennai.
7. Dr. M.Kamaraj, Professor, IIT, Madras, Chennai.
8. Dr. D. Tjirunakkarasu, Chairman, Institution of Engineers (India)
9. Dr. G.S. Palani, Deputy Director, SERC, Chennai
10. Mr. A.R.C. Murthi, Assistant Director, SERC, Chennai
11. Dr. G. Devaradjane, Professor, MIT, Chennai
12. Dr. K. Veluchamy, Scientist, IGCAR, Kalpakkam

- 13. Dr. VaidehiGanesan, Senior Scientist, IGCAR, Kalpakkam,
- 14. Mr. C. Suppuraj, Manager (Product Development), Ford India Ltd, Chennai.
- 15. Dr. .C.G. Saravanan, professor, Annamalai University, Chidambaram
- 16. Dr. R. Venkatasamy, Principal, Saveetha Engineering College, Chennai
- 17. Dr. S. Arul, Professor, Panimalar Engineering College, Chennai
- 18. Dr.Kesavan, Professor, MIT, Chrompet, Chennai.

13. **Percentage of classes taken by temporary faculty-programme-wise information** : NIL

14. **Programme- wise Student Teacher ratio**

The staff student ratio of the department is 1:15 by considering the subject handled by the faculty of other departments.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:**

	Sanctioned	Filled
Technical Staff	08	08

16. **Research thrust areas as recognized by major funding agencies:**

- Technology based Incubates– DST
- Machining of Composite materials.
- Industrial Engineering- Supply Chain Management, Six Sigma.
- Advanced Welding Technologies - FSW, GTAW, GMAW etc.
- Thermal Spray Coating Technologies.
- Development of Solar thermal storage systems.

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise:**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Scanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.A.John Rajan (Co Principal Investigator)	Developing Measures for Weld defect reduction in the Nuclear Fuel Reprocessing plant fabrication using Six Sigma Approach.	IGCAR	2012	9 LAKHS	18 MONTHS
Total					9 LAKHS	

18. **Inter-institutional collaborative projects and associated grants received :** NIL

a) National collaboration b) International collaboration

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Scanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.B.R.RameshBapu	Cascaded Multi Temperature Latent Heat Solar Thermal Storage System	DST (Ref. No: SR / S3 / MERC / 46 / 2004)	2004	17,40,000	2 Years
Total					1740000	

20. **Research facility / centre with**

- Center for Nano Science and Nano Technology
- Center for Space technology
- Center for Remote Sensing

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NIL

22. **Publications:**

- Number of papers published in peer reviewed journals (national / international) : 271
- Monographs : Nil
- Chapters in Books : 03
- Edited Books : Nil
- Books with ISBN with details of publishers : Nil
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) :
 - SCOPUS : 122
 - WOS : 38
- Citation Index – range / average : 1 - 71
- SNIP : 0.673 – 2.083
- SJR : 0.13 – 2.125
- Impact Factor – range / average : 0.502 – 3.85
- h-index : 3

23. **Details of patents and income generated** : NIL

24. **Areas of consultancy and income generated** : NIL

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** :

Dr.S.Prakash

- Was invited to Taylors University (Lake Side view campus) Subang Jaya, Selangor, Malaysia to Participate in CDIO -2013 Fall Meeting
- He was also invited to Advanced composites lab in Council of Scientific and Industrial Research, National Aerospace Laboratories-Bangalore (CISCR)
- He visited Modern Engineering Plastics Private Limited, Mettur, Tamilnadu (Industry)
- Dr. Prakash was invited to Roots Industries Limited, Coimbatore.(Industry)

26. **Faculty serving in**

Name of the Faculty	Journal Name	Editor/ Reviewer Committee Member	Country
Dr.S.Prakash	<ul style="list-style-type: none"> • International Organization of Scientific Research, Journal of Mechanical and Civil Engineering(ISOR-JMCE) • International journal of Computational Engineering Research • International Conference on Innovations in Civil Engineering • International Conference on Advanced Nano materials and Emerging Engineering Technologies 2013 • International Institute of Engineers • I-Manager Journal on Material Science • International Journal of Design and Manufacturing • Journal of Advances in Building Science and Mechanics 	Editor Associate Editor Advisory Committee Technical Committee Editorial Board Member Editorial Board Member Editorial Board Member Editorial Board Member	India
	<ul style="list-style-type: none"> • Engineering and Technology-AASCIT • American Journal of Materials Science 	Editorial Board	USA USA

Name of the Faculty	Journal Name	Editor/ Reviewer Committee Member	Country
	<ul style="list-style-type: none"> • International Conference on Production and Mechanical Engineering 2014,Dec 30-31-Bangkok(Thailand) • International Academy of Industrial ,Mechanical & Aeronautical Engineering • 2015 International Conference on Metal Materials and Engineering (MME 2015) 	<p>Guest Editor</p> <p>Reviewer Committee Technical Program Committee</p>	<p>Bangkok-Thailand</p> <p>Dubai</p> <p>China</p>
	<ul style="list-style-type: none"> • International Journal of Design and Manufacturing Technology • International Journal of Metallurgical Engineering • International Journal of Statistical and Applications • Scientific Research and Essays • Journal of Advances in Building Science and Mechanics • Indian Journal of Science and Technology • Journal of Advanced Manufacturing Systems 	<p>Reviewer</p>	<p>India</p>
	<ul style="list-style-type: none"> • International Journal of Engineering Science and Technology. Taylor University • Journal of Measurement Confederation(Science Direct) • Journal of Mechanical Science and Technology • Journal of Mechanical Engineering and Technology(JMET) • EURECA-2013 Engineering Undergraduate Research Catalyst Conference –Taylors University 	<p>Reviewer</p>	<p>Malaysia</p> <p>USA</p> <p>Korea</p> <p>Malaysia</p>

Name of the Faculty	Journal Name	Editor/ Reviewer Committee Member	Country
Dr.A.JohnRajan	<ul style="list-style-type: none"> International Journal of Design and Manufacturing Technology, Sathyabama University. National Journal of Advances in Building Science and Mechanics, Sathyabama University. International Journal of Supply Chain and Inventory, Inder Science publishers, USA 	Reviewer	India India USA
Dr.T.N.Valarmathi	<ul style="list-style-type: none"> Bioresources (ISSN: 1930-2126) Usak University Journal of Material Sciences - ISSN: 2147-2785 National Journal of Advances in Building Science andMechanics – ISSN: 0975-7317 	Reviewer	USA
Dr. C Shanjeevi	<ul style="list-style-type: none"> Multidiscipline Modelling in Materials and structures Advances in Mechanical engineering 	Reviewer	UK
Mrs. J Lilly Mercy	<ul style="list-style-type: none"> Indian Journal of Science and Technology 	Reviewer	India

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):

S.No	Date	Name of the Program	Topic
1	07 Sep 2011	One day workshop on trends in metal joining technologies (TMJT 2011)	Advanced Welding Technologies

S.No	Date	Name of the Program	Topic
2	28,29 Dec 2012	National workshop on opportunities in non-destructive testing (ONDT – 2012)	Inspection Methods using NDT.
3	22 Jan 2014	National Seminar on Modern Manufacturing System (MMS- 2014)	New techniques for Manufacturing.
4	09 May 2015	Faculty Development Program	Finite Element Method
5	17 th - 18 th Sep 2014	Faculty Development Program	Advanced thermal engineering
6	APRIL -2015	Faculty Development Program	CREO MODELLING

28. **Student projects:**

- Percentage of students who have done in-house projects including inter- departmental projects : 64.03%
- Percentage of students doing projects in collaboration with other universities/industry / institute : 35.97%

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		1	2
Students	(Extra / Cocurricular)	1	3
	Sports	7	3

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
1	National Conference on Recent Trends in Manufacturing and Industrial Engineering-NCRTMIE 2010	9,10 April 2010	Indian Institute of Production Engineers- IIPE &Sathyabama University	IIPE Chairman
2	One day workshop on trends in metal joining technologies (TMJT 2011)	07 Sep 2011	Sathyabama University	Research Scholars, Academicians,PG students
3	National workshop on opportunities in non-destructive testing (ONDT – 2012)	28,29 Dec 2012	Sathyabama University	Research Scholars, Academicians,PG students.
4	National Seminar on Modern Manufacturing System (MMS- 2014)	22 Jan 2014	IIPE- Chennai Chapter & SathyabamaUniversity	Research Scholars, Academicians,PG students & Final year UGstudents.
5	Path breaking practices of Six Sigma, Lean and Project Management	08-03-2014	Under the sponsored Research Project of IGCAR	Scientific officers of IGCAR, Kalpakkam

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants
6	Guest lecturer on design of Miniaturized Robots	7/3/2016	Sathyabama University	Staff, research scholar and students
7	Guest Lecturer On Employability Skill Development	26/2/2016	Sathyabama University	Staff, research scholar and students
8	One Day Work Shop On Recent Trend In Manufacturing And Material Technology (RMMT-2016)	22 MARCH 2016	Sathyabama University	Research Scholars, Academicians, PG students
9	Frontiers in Automobile and Mechanical Engineering FAME 2016	7-9 JULY -2016	Sathyabama university & CVRDE-avadi	Research Scholars, Academicians, PG students, Industry peoples

31. **Code of ethics for research followed by the departments:**

- The department instills a firm rule that researchers must carry out original work and should avoid plagiarism and intellectual theft.
- All research scholars are made aware of impact factor, scopus indexed and web of science citation.
- Research potential of a research scholar is evaluated based on the quality (Impact factor, Citation index, h-index etc.) of the journal publication rather than the number of publications.
- Instead of publishing research data in conferences, researchers are encouraged to publish papers in refereed journals which are WOS and SCOPUS indexed.

32. Student profile programme-wise:

a) Profile

Name of the Programme	Batch	Application received	Selected	
			Male	Female
B.E (M&P) - REGULAR	2013-2017	3907	190	2
	2014-2018	5432	102	0
	2015-2019	1235	50	0
	2016-2020	652	24	0
M.E (CAD) - REGULAR	2015-2017	16	7	0
	2016-2018	15	4	0
M.E (CAD) – PART TIME	2014-2017	610	11	0
	2015-2018	210	07	02
M.E (Metallurgical and Material Science Engineering) - Regular	2016-2018	-	-	-

b) University Results

Name of the Programme (refer to question 4)	Batch	Total No. of Students	Pass Percentage
B.E (M&P) - REGULAR	2012-2016	230	67.83
	2013-2017	192	43.45
	2014-2018	102	43.13
	2015-2019	50	32.29
M.E (CAD) - REGULAR	2014-2016	06	100
	2015-2017	07	100
M.E (CAD) – PART TIME	2013-2016	21	90.47
	2014-2017	12	91.66
	2015-2018	09	100

33. Diversity of students

ACADEMIC YEAR/ BATCH	Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
2015-17	M.E (CAD)	Nil	85%	15%	NIL
2016-18	M.E (CAD)	15%	70%	15%	NIL

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

ACADEMIC YEAR	NAME OF THE EXAMINATION	STUDENTS CLEARED
2009-2013	GATE	06
	Govt. Examinations	03
	IIM	01
2010-2014	GATE	02
	Govt. Examinations	05
	IIM	NIL
2011-2015	GATE	08
	Govt. Examinations	03
	IIM	NIL
2012-2016	GATE	04
	Govt. Examinations	04
	IIM	NIL

35. Student progression

ACADEMIC YEAR	UG-PG	PG-Ph.D	NUMBER OF STUDENT REGISTERED FOR PLACEMENT	TOTAL NUMBER OF STUDENT PLACED	NUMBER OF STUDENT PLACED THROUGH ON-CAMPUS	NUMBER OF STUDENT PLACED THROUGH OFF-CAMPUS	NUMBER OF ENTREPRENEURS
2007-11	06	NIL	142	62	62	NIL	04
2008-12	04	NIL	58	37	37	NIL	02
2009-13	05	NIL	195	65	65	NIL	06
2010-14	08	NIL	148	91	91	NIL	03
2011-15	11	NIL	125	78	78	NIL	08

Student progression	Percentage against enrolled
UG to PG	30%
PG to M.Phil.	NA
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	
• Campus selection	48%
• Other than campus recruitment	12%
Entrepreneurs	10%

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	44.44% (8 out of 18)
from other universities within the State	50% (9 out of 18)
from universities from other States	5.55 % (1 out of 18)
from universities outside the country	NIL

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

Ph.D. :01 Staff

38. **Present details of departmental infrastructural facilities with regard to**

a) Library

NO OF BOOKS		COST (in Rs.)
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
8483	47	1200000

b) **Internet facilities for staff and students**

Internet connection is given to the staff and students through LAN.

c) **Total number of class rooms - 07**

d) **Class rooms with ICT (Information Communications Technology) facility : Nil**

e) **Students' laboratories**

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	Machine Shop- I	2500	3000000
2.	Machine Shop- II	1200	150000
3.	Metrology lab	800	500000
4.	Metallurgy lab	1000	800000
5.	M&P CAD lab	2500	1000000
6.	CAM lab	2500	4000000

f) **Research laboratories :** NIL39. **List of doctoral, post-doctoral students and Research Associates**

a) from the host institution/university : 5 (4 Years)

b) from other institutions/universities : 11 (4 Years)

40. **Number of post graduate students getting financial assistance from the university :** NIL41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:**

Yes, from time to time need assessment has been undertaken by the department. Based on growing industry requirements new courses have been introduced. Skill based analysis is carried out on a regular basis and requirements were highlighted in the curriculum and required changes made to existing course syllabus. Deliverables are clearly chalked out in such a manner that student and faculty would strive to reach the target specified.

42. **Does the department obtain feedback form**

a. **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. From the feedback obtained from staff, changes in curriculum are carried out to ensure active participation of students in classroom.

b. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes. This feedback is utilized to identify the training needs of the staff and to update their knowledge about recent developments. Also it is used to train the faculty in new and improved teaching methods.

c. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

No.

43. **List the distinguished alumni of the department (maximum 10)**

S.No	Name	Students Batch	Position
1.	Mr. G Joshva	2003	Wing Commander, Indian Air Force, Chennai
2.	Mr. R Jayabharath	2003	Managing Director, Pontus Pack Pvt. Ltd., Chennai
3.	Dr.I.APalani	2004	Associate Professor, IIT Indore
4.	Mr. Ram Kumar Prakash	2007	Senior Production Engineer, Versatile Card Technology Pvt Ltd.
5.	Mr. A N Ayyappan	2009	Managing Director, Precision Forgings, Chennai
6.	Mr. A Naresh Kumar	2011	Senior Engineer, Cobra Carbide Pvt. Ltd.,

7.	Mr. P Sandeep	2012	Senior Engineer, Samsung India Electronics, Chennai
8.	Mr. Pratik Dutta	2013	Associate Manager, AMGEN, Los Angeles, California
9.	Ms. AzeezaGhani	2014	Industrial Research Engineer, SNA Europe, UK Ltd., Sheffield
10.	Mr. Nishant Gaurav	2015	Indian Institute of Sciences, Bangalore

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lectures	34
Workshops	
Seminars	

45. **List the teaching methods adopted by the faculty for different programmes.**

- Lectures and Questionnaire Method
- Using Multimedia
- Encouraging the students to take seminars in recent developments.
- Lab experiments in correlation with theoretical subjects

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Head of the department continuously monitors the progress of the knowledge delivered to the students by frequently visiting and interacting with them. For each unit in a subject, the core concepts and thrust definitions are given importance to while teaching and adequate assignments and tests are conducted to ensure that the student gets to know the basics clear.

The effective delivery of each subject to the student is monitored and taken care by a subject coordinator, who is usually a senior faculty, expert in that subject. He/She guides and gives input to other staff handling the subject and also conducts orientation classes to make the course objective clear. Through this we are able to maintain uniformity in syllabus completion, and give equal knowledge input to the students.

Two assessment tests conducted in between the semester helps us to keep a track on student's understanding of the subject. An analysis of the assessment test results is done by each subject handling staff and the reasons for under performance of students are analyzed and rectified.

47. **Highlight the participation of students and faculty in extension activities.**
- Enrichment program on practical skills to industrial employees by our faculty experts
 - Student Participation in SAE related competitions
 - Participation by students in NASA Rover Challenge
 - Competitions organized by Imperial Society of Innovative engineers (ISIE)
 - Publication of papers in Conferences and Journals by Staff and Students together
 - Implant Training in Industries
 - Assimilating meritorious students into In house projects
 - Participation in the Blood Donation Camps
 - Participation in Planting of Saplings – A step towards a greener world
48. **Give details of “beyond syllabus scholarly activities” of the department.**
Guest Lecture, Workshops, Industrial Visits etc
49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**
- Declared As Category ‘A’ University by MHRD, Govt of India.
 - Certification of ISO 9001:2008 quality system by DNV – GL Netherland.
50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**
- The department has staff carrying out research in varied fields of engineering such as Welding, Composites, Bio fuels where they experiment with new methods and materials which help in the generation of new data.
 - Guest lectures from eminent academicians and industrialists which help the staff and students to come up with new innovative ideas.
 - Arranging Industrial visits and Implant trainings for students to know the processes and gain practical knowledge.
 - Interaction between staff and industry personnel to generate ideas to meet new requirements of industries.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

- Strength:** Research Publications.
Qualified and Experienced and Adequate Faculty as per statutory requirements
Well-equipped laboratory which can meet the needs of students
Presence of young faculty members actively involved in research
Co-operation from reputed institutes like IGCAR, Kalpakkam for doing research
- Weakness:** The academic staff needs to show more motivation towards meeting the social needs while doing research.
Need to increase staff – student collaborated research activities
- Opportunities:** As our department is a core branch, which has well crafted and diversified courses, students find paths into a wide variety of process and production industries thus improving job opportunities.
Our curriculum offers students to focus their interest into research activities, which in turn provide them opportunities as JRF's in R&D sector
Funding from international bodies and Good alumni network
- Challenges:** To ensure that students of all skill levels are made proficient enough to find employment.
To meet the needs of modern core industries.

52. **Future plans of the department.**

- To start two PG programs in Energy Engineering and Management, Industrial Engineering
- To revise the curriculum and syllabus for sustainable development
- To Inculcate Entrepreneurship skills among students
- To conduct Faculty development programs, one every year
- To train the staff in new CAD softwares and Life skills this can be then imparted to students.
- To encourage more students to pursue higher studies and research activities

1. **Name of the Department** : DEPARTMENT OF AUTOMOBILE ENGINEERING

2. **Year of establishment** : 2008

3. **Is the Department part of a School/Faculty of the university?**
School of University - School of Mechanical Engineering

4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
 - **UG**
B.E. - AUTOMOBILE ENGINEERING

 - **PG**
M. Tech. - NAVAL ENGINEERING

Research:

 - M. Tech. (By Research)

 - Ph. D.

5. **Inter Disciplinary programmes and departments involved:** Nil

6. **Courses in collaboration with other universities, industries, foreign institutions, etc:**
Automotive Skill Development Programme (ASDP) in collaboration with TVS training Services.
Automotive CAD Skill Development and Industrial Internship in collaboration with Institution of Industrial Design (IID)

7. Details of programmes discontinued, if any, with reasons:

Nil

8. Examination systems: Annual/ Semester/ Trimester/Choice based credit system:

Semester / Absolute credit based system

9. Participation of the department in the courses offered by other departments:

Name of the courses	Name of the department
Engineering Graphics	EEE,CSE, MECH, MECH & PRODUCTION
Material Technology	Dept. of chemical engineering Dept. of Mechanical engineering Dept. of Mechanical & production engineering
Basic mechanical engineering	Bio- Medical
Dynamics of Machinery	Mechanical
Resource management techniques	Mechanical and Production
Mechanics of solids and fluids	EEE

Name of the courses	Name of the department
Mechanics of machines	Mechanical and Production
Mechatronics	Mechanical
Engineering thermodynamics	Mechanical and Production
Thermal engineering	Mechanical

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others):**

	Sanctioned	Filled
Professor	02	02
Associate professors	-	-
Assistant Professors	12	12
Others(Teaching Asst.)	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Teaching staff:

S.NO	Name	Qualification	Designation	Specialization	No of years of experience		No of Phd/ Mphil students guided for the last 4 years	
					Teaching	Industry	Guided	Guiding
1.	Dr.V.K.Bupesh Raja	M.E, Ph.D	Professor & Head	Production	16	1	--	8
2.	Dr.A.Karthikeyan	M.E, Ph.D	Professor	Thermal Engineering	21	--	1	7
3.	Mrs. P. Sivashankari	M.E	Assistant Professor	Automobile Engineering	8	--	--	--
4.	Mr.Dillip Kumar Sahoo	M.E	Assistant Professor	Automobile Engineering	8	--	--	--
5.	Mr.R. Kumara Subramanian	M.E	Assistant Professor	CAD	8	--	--	--
6.	Mrs.K.R.Kavitha	M.E	Assistant Professor	CAD	5	--	--	--
7.	Mr.Venkata Rama Rao	M.E	Assistant Professor	Automobile Engineering	4	--	--	--
8.	Mr.P.Karthikeyan	M.E	Assistant Professor	Heat power Engineering	5	--	--	--
9.	Mr.N.Karthik	M.E	Assistant Professor	Thermal engineering	6	--	--	--
10.	Mr.G. Mathiselvan	M.E	Assistant Professor	Automobile	3	--	--	--

S.NO	Name	Qualification	Designation	Specialization	No of years of experience		No of Phd/ Mphil students guided for the last 4 years	
					Teaching	Industry	Guided	Guiding
11.	Mr.R. Rajasekar	M.E	Assistant Professor	Automobile Engineering	3	--	--	--
12.	Mr.S.Yuvaraja	M.E	Assistant Professor	Automobile Engineering	3	--	--	--
13.	Mr.R. Gopinath	M.E	Assistant Professor	Automobile Engineering	3	--	--	--
14.	Mr.T.Raja	M.E	Assistant Professor	Automobile Engineering	3	--	--	--

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors:**

- Dr. J.M. Malikaarjuna, Prof. IIT Madras
- Dr. Thirunakkarasu, Chairman, Institute of Engineers(India)
- Mr.C. Suppuraj manager (Product Development), Ford India Ltd. Chennai.
- Dr.G.Devaradjane, Prof. MIT Anna University, Chennai.
- Dr. M. Kamaraj, Prof., IIT, Chennai

13. **Percentage of classes taken by temporary faculty – programme – wise information** : Nil

14. **Programme- wise Student Teacher ratio:**

The staff student ratio of the department is 1:15 by considering the subjects handled by the faculty of the other Departments.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Technical staff	4	4
Administrative staff	Nil	Nil

16. **Research thrust areas as recognized by major funding agencies:**

- Heat Transfer
- Steel Plant Slag utilization
- Biogas Engines

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise:**

a) National Level Funded Projects and Programs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr.A.Karthikeyan Dr.S.Ramachandran	Experimental and Numerical Simulations of Heat Transfer Processes in Integrated Safety Vessel with Thermal Insulation and Reactor Vault	Indira Gandhi Centre for Atomic Research (IGCAR)	Dec 2013	Rs.24,81,000/-	2 year
2	Dr.V.K.Bupesh Raja Dr. R.Padma Priya, Dr.V.Ganesh Kumar	Utilization of Steel Plant waste in manufacture of paver blocks and slag foams	Ministry of steel	Dec 2013	Rs73,00,000/-	3 years

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
3	Dr.V.K.Bupesh Raja, Dr.N.M.Nandhitha	Development of On-Line Monitoring System for Preventing Weld Defects in Automated Gas Tungsten Arc Welding by Infrared Thermography and Digital Radiography	Department of Science and Technology (DST)	June 2012	Rs 25,97,617/-	2 years
4.	Dr.V.K.Bupesh Raja Dr.V.Ganesh Kumar	Biogas Compressor	Technology Business Incubator	June 2016	Rs 4,20,000/-	1 year
Total					Rs:1,27,98617/-	

18. **Inter-institutional collaborative projects and associated grants received** : Nil
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received** : Nil
20. **Research facility / centre with:**
- National recognition: - Centre for Nano Science and Nanotechnology, recognized by IGCAR.
21. **Special research laboratories sponsored by / created by industry or corporate bodies:** Nil
22. **Publications:**
- Number of papers published in peer reviewed journals (national / international): 120
 - Monographs - Nil
 - Chapters in Books - Nil
 - Edited Books - Nil
 - Books with ISBN with details of publishers - Nil

- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) - SCOPUS – 28; WOS - 3
- Citation Index – range / average - 1
- SNIP - Nil
- SJR - 0.13
- Impact Factor – range / average - 1-1.6
- h-index - 1

23. **Details of patents and income generated** : Nil

24. **Areas of consultancy and income generated** : Nil

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : Nil

26. **Faculty serving in:**

a) National committees : Nil

b) International committees : Nil

c) Editorial Boards:

Dr.V.K.Bupesh Raja

REVIEWER IN JOURNALS

- Reviewer in Journal of The Institution of Engineers (India): Series C.
- Reviewer in Journal of Manufacturing Engineering (JME) - Society for Manufacturing Engineers-India’.
- Reviewer in International Journal of Composite Materials and Manufacturing (IJCMM).

MEMBER OF EDITORIAL BOARD IN JOURNALS

- Member of the Editorial Board of i-manager’s Journal on Mechanical Engineering (JME).
- Member of the Editorial Board of i-manager’s Journal on Material Science (JMS).
- Member of Editorial Board/Regional Editor of AES Journals in Engineering, Technology, Management and Sciences.
- Member of the Editorial Board of International Journal of Emerging Technologies and Applications in Engineering Technology and Sciences (IJ-ETA-ETS).
- Member of the Editorial Board of International Journal of Computer Applications in Engineering, Technology and Sciences (IJ-CA-ETS).
- Member of the Editorial Board of International Journal on Design and Manufacturing Technologies published by Sathyabama University.
- Member of the Editorial Board of National Journal on Advances in Building Sciences and Mechanics published by Sathyabama University.

Dr.A.Karthikeyan

REVIEWER IN JOURNALS

- Reviewer in International Journal of Ambient Energy
- Reviewer in International Journal of Energy and Fuels

MEMBER OF EDITORIAL BOARD IN JOURNALS

- Member of the Editorial Board of International Journal on Design and Manufacturing Technologies published by Sathyabama University.
- Member of the Editorial Board of National Journal on Advances in Building Sciences and Mechanics published by Sathyabama University

MEMBERSHIP IN PROFESSIONAL BODIES:

Dr.V.K.Bupesh Raja:

- Solar Energy society of India -LM/2142/2015
- Member in Society of Automotive Engineers – 7120411103.
- Life Member of Madras Metallurgical Society-(Receipt No. 384, dated. 02-02-2009)
- Life Member of Indian Welding Society- L00738
- Life Member of Indian LASER Association – LM802
- Associate Member of The Institute of Engineers (India) – AM092322-5
- Life member of The Indian Society for Technical Education – LM 33181.

Dr.A.Karthikeyan:

- **Member in Society of Automotive Engineers- 7010041218**

Mr. Dillip Kumar Sahoo

- **Member in Society of Automotive Engineers- 7010041219**

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Attended:

S.No	Date	Name of the Program	Topic
1.	19-21-jul-2007	National Workshop	Nuclear Energy for National Development and Environmental Sustainability
2.	04&05-01-2007	Refresher Course	Winter School on Modeling, Computing and Simulation in Engineering
3.	19& 20-12- 2009	Two Day Course	Testing and Characterization of Materials'
4.	04& 05-12- 2009	Faculty Development Programme	Modern Teaching Methods and Research in Engineering and Technology
5.	02& 03-12- 2009	National Workshop	Engineering Materials and Applications
6.	27& 28-11- 2009	Two Day Course	Materials and Metallurgy for Engineers
7.	22-24-Oct-2009	National Workshop	Applications of Logic
8.	09-10-2009	National Workshop	Industrial Applications of Finite Element Methods
9.	17&18-04-2009	National Workshop	Environmentally Cleaner Welding Process
10.	28-02-2009	One Day Workshop	Solar Thermal Systems
11.	29-09- 2010	National Workshop	New Materials and Applications (NMA 2010)
12.	25-05-2010	National Workshop	Synthesis and Characterization of Smart Materials'
13.	27-08-2010	Expert Lecture Series	Intellectual Property Rights
14.	11-21 Dec-2012	ISTE Workshop	Engineering Thermodynamics
15.	7&8-09-2012	National Workshop	Emerging Trends In Alternate Fuels And Automotive Electronics
16.	18-28- Nov-2013	AICTE sponsored Work shop	Renewable Energy sources
17.	22-10-2013	FDP	Multiresponse Optimization In Manufacturing
18.	02-15-Dec-2013	AICTE Workshop	Mechatronics
19.	07&08-10-2013	National Workshop	Processing and Mechanical Behaviour of Structural Nanomaterials
20.	08.02.2013	National Workshop	I.C Engines and Alternate Fuels
21.	14.05.2016	Faculty Development Programme	CFD using CONVERGE CFD software
22.	07.04.2016	National workshop	Automotive pollution and emission control

28. Student projects:

Batch	Total No. of students	In House Projects(%)	Industries (%)
2008-2012	60	75	25
2009-2013	69	82	18
2010-2014	104	90	10
2011-2015	118	90	10
2012-2016	156	90	10

29. Awards / recognitions received at the national and international level by: NIL

		National Level	International Level
Staff		-	-
Students	(Extra / Cocurricular)	10	-
	Sports	7	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency
1.	National conference On challenges in Automotive Technology	6 & 7 th March 2012	Tamil Nadu council for science and technology
2.	National workshop on I.C Engines and Alternate Fuels	8 th Feb 2013	Society of Automotive Engineers, India
3.	National workshop on Automotive pollution and emission control	7 th Apr 2016	Tamil Nadu council for science and technology

31. Code of ethics for research followed by the departments:

- Openness
- Maintain Confidentiality
- Give credit and proper acknowledgement to the contributors

32. Student profile programme-wise:

Name of the Programme (refer to question 4)	Batch	Application received	Selected	
			Male	Female
B.E Automobile Engineering	2011-15	2947	118	Nil
	2012-16	4052	158	Nil
	2013-17	3951	162	Nil
	2014-18	2674	117	Nil
	2015-19	1915	87	01
	2016-20	1645	73	01

Name of the Programme (refer to question 4)	Batch	Pass Percentage
B.E Automobile Engineering	2010-14	48.54
	2011-15	65.35
	2012-16	53.15
	2013-17	50.63

33. Diversity of students:

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Tech (By Research)		-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise : Nil

35. Student progression

Student progression	Percentage against enrolled
UG to PG	18
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	(Placement)
• Campus selection	23
• Other than campus recruitment	47
Entrepreneurs	12

36. **Diversity of staff:**

Percentage of faculty who are graduates	
of the same university	16.66
from other universities within the State	83.33
from universities from other States	
from universities outside the country	

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:**

Ph.D- 02

38. **Present details of departmental infrastructural facilities with regard to Library:**a) **Library**

NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	TOTAL COST
8407	40	Rs: 30,00000

- b) **Internet facilities for staff and students** : Provided
 c) **Total number of class rooms** : 11
 d) **Class rooms with ICT facility** : 01
 e) **Students' laboratories** :

e.) Department laboratories

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	FUELS AND LUBRICANTS	1600	Rs.1,96,595
2	AUTOMOTIVE CHASSIS AND VEHICLE COMPONENTS	2400	Rs.5,61,822
3	AUTOMOTIVE ELECTRICAL	1600	Rs.2,48,441
4	TWO WHEELER AND THREE WHEELER	1600	Rs.8,43,900
5	VEHICLE MAINTENANCE AND RECONDITIONING	1600	Rs.7,35,800
6	CAD LAB	2400	Rs. 14,00,000

f) Research laboratories:

A heat transfer test facility to study the heat transfer involved in the nuclear reactor vault along with safety vessel has been established through the funding from IGCAR.

Steel slag foam making research facility used for conducting research on making foam useful in absorbing the energy involved in the crash of automobiles. This facility has been made using the funds from the Ministry of Steel, Government of India.

39. List of doctoral, post-doctoral students and Research Associates:

Nil:

40. Number of post graduate students getting financial assistance from the university: Nil**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:**

Yes, need assessment has undertaken by the department. Based on the industry demand new specialization has been planned to introduce.

42. Does the department obtain feedback from:

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, based on the feedback given by the faculty on curriculum, new elective papers are added, seminar hours are introduced as part of the regular time table and special classes to improve the university results.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Based on feedback given by the students about the staff, they have changed the teaching methodology and introduced more interactive sessions like Case study, Group discussion and Newspaper discussions, etc. The department has added elective papers and new specialization based on the comment.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

The department has strong alumni cell, they have rendered various services like conducting personality development classes for their juniors, series of guest lecturers, arranged industrial visits, based on the current demand of the industrial trend they requested to upgrade the course curriculum.

43. List the distinguished alumni of the department (maximum 10) : Nil

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts:

Special Lectures	34
Workshops	3
Seminars	6

45. **List the teaching methods adopted by the faculty for different programmes:**

- Class room teaching
- Case methodology
- Seminar
- Knowledge sharing with Dailies discussion
- Soft skills development
- Industrial Internship

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The department has got a set of quantified goals and objectives to be achieved for every academic year. A review is conducted for every six months to monitor the outcome and ratification will be done if it is not achieved as per the quantified goals and objectives.

47. **Highlight the participation of students and faculty in extension activities:**

Faculty participation in extension activities

- 21 students and two faculty members participated in SAE BAJA 2013 competition and awarded gold badge by clearing the technical inspection within first 25 teams.
- 6 students and one faculty member involved in Will On Wheels (WOW) project and modified Renault duster car to suit differently abled person.
- Every year more than 50 Students Participating in Blood donation camp organized by youth red cross.
- 75 Students have undergone Industrial Training and Practices conducted by AWTI Govt of India for 5 days.
- 300 Students underwent training and hands on experience in Engine dynamics and vibration conducted by Experts Hub.

48. **Give details of “beyond syllabus scholarly activities” of the department:**

- Developing Entrepreneurship skills
- Industrial Visit
- Guest Lecture by eminent industrial personalities
- Soft skills development

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details:**

- Declared as category A institution by the task force appointed by MHRD
- Certified by ISO 9001:2008 by DNV Netherlands

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied:**

SAE Collegiate club provide avenues for students from various faculties to get hands on experience.

Department has conducted winter internship programmes and workshops to inculcate latest industrial trends to the students of various departments/faculties

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department:**

STRENGTHS

- Adequate Faculty as per requirements
- Experienced and Qualified faculty
- Competitive and Updated Syllabus
- Continuous Management Support and Motivation
- Infrastructure
- Institution member in Institution of Engineers India
- Active Alumini and placement cell

WEAKNESS

- Consultancy services
- Not fully explored the industrial training/collaborative projects
- Need of MOU with International Recognized bodies

OPPORTUNITIES

- Industry and Institution relationship
- Placement
- Funded Agencies Support
- Established Network
- Goodwill

THREATS

- Rapid changes in software packages
- Competitiveness
- Raising need for Employability skills
- Industrial recession
- Fluctuations in industrial intake

52. Future plans of the department:

- To design the curriculum to cater the Industry needs
- Inculcate for Entrepreneurship skills among students
- To train the students in latest softwares to improve employability.
- To involve students in live projects from industries
- To install state of the art labs

1. **Name of the Department** : Department of Aeronautical Engineering
2. **Year of establishment** : 2004
3. **Is the Department part of a School/Faculty of the university?**
Yes, School of Mechanical Engineering
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
UG Course
Bachelor of Engineering in Aeronautical Engineering
PG Course
Master of Engineering in Aeronautical Engineering
Ph. D. Programme
Doctor of Philosophy
Masters of Technology (By Research)
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : NIL
7. **Details of programmes discontinued, if any, with reasons** : NIL
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system:**
Semester and Absolute credit based system

9. **Participation of the department in the courses offered by other departments** :

Name of the course	Service given to department
Fundamentals of Mechanical Engineering	B.E.(Mech)
Computational Fluid Mechanics	B.E.(Auto)
Fluid Mechanics and Machinery	B.E.(Mech)
Gas Dynamics and Jet Propulsion	B.E.(Mech)
Heat and Mass Transfer	B.E.(Auto)

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	1	1
Associate professors	2	2
Assistant Professors	4	4
Others	NIL	NIL

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	No of years of experience (yrs)		No of Phd/M. Tech(By research) students guiding for the last 4 years	
					Teaching	Industry	Guided	Guiding
1	Mr.Elphej Churchil	B.Sc,(Physics) B.Tech., M.E.(Aero), (PhD-Aero) ,MBA	Associate professor	Aerodynamics	15	7	NIL	NIL
2	Dr. A.Anderson	M.E.,Ph.D	Professor	Thermal barrier coatings	16	--	-	4
3	Alexander J	B.Tech, M.E.,(Ph.D)	Associate professor		12	1		
4	Mr. P. Gunasekar	B.E., M.E. (Aero)	Assistant professor	Computational Fluid Dynamics	5	7	NIL	NIL
5	Ms.J.Devipriya	B.E., M.E. (Aero)	Assistant professor	Aerodynamics	4.5	-	NIL	NIL
6	Mr.S. Manigandan	B.E., M.E. (Aero)	Assistant professor	Flight Dynamics	6.5	-	NIL	NIL
7	Mr.Kaja Bantha Nawas	B.E., M.E.	Associate professor	Industrial Engg	3	4	NIL	NIL

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors** :
- Dr.Ashok Kumar, General Motors,Bangalore.
 - Dr.Arul Prakash, Professor, IIT Madras, Chennai.
 - Dr.Ganesh Anavartham,Sc'G', DRDL, Hyderabad.
 - Mrs.Vidhya, Sc'G',ISRO, Trivandrum.
 - Dr.BSM.Augustine, Sqn. Ldr. (Retd.) – IAF, Specialized in Airframe Maintenance and Aircraft Engine Maintenance.
13. **Percentage of classes taken by temporary faculty-programme –wise information** : NIL
14. **Programme- wise Student Teacher ratio**
- The staff student ratio of the department is 1:17 by considering the subjects handled by faculty of other departments.
15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:** Technical - 8
16. **Research thrust areas as recognized by major funding agencies** : NIL
17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.:** 1
18. **Inter-institutional collaborative projects and associated grants received** : NIL
- a) National collaboration b) International collaboration
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.;** total grants received. : NIL

20. **Research facility / centre with**

- National recognition : Centre of Space Technology

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NIL

22. **Publications:**

- Number of papers published in peer reviewed journals (national / international): **73**
- Monographs – Nil
- Chapters in Books –1
- Edited Books – Nil
- Books with ISBN with details of publishers - **7**
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) - SCOPUS – 25; WOS - 02
- Citation Index – range / average – Nil
- SNIP – 0.482 – 0.516
- SJR – **0.02-0.75**
- Impact Factor – range / average – 0 – 0.45
- h-index – 2

23. **Details of patents and income generated** : NIL
24. **Areas of consultancy and income generated** : NIL
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : NIL
26. **Faculty serving in**
 a) National committees b) International committees c) Editorial Boards d) Any other (please specify):

1. J.Alexander – Mentor-Spirit Aero System - US

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

S.No	Date	Name of the Program	Topic
Training Program Attended:			
1	May 6-10,2013	Faculty Enablement Program @ INFOSYS	Introduction to Aircraft Industry and Aircraft systems.
2	Feb 17,2014	MATLAB training program	Application in Fuzzy logic & genetic algorithm.
3	Feb ,2014	MSC/NASTRAN & PATRAN training program	Application in Aerospace structures.

Training Program Conducted:

S.No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants *
National Seminars				
1.	Current Status & Emerging Trends in Aircraft Maintenance	16.7.2008	The Aeronautical Society of India	Mrs. Tulsi N. Mirchandaney Managing Director, Blue Dart Aviation
2.	Current Status & Changing Trends in Aero Space Activities	27 to 29 Jan-2009	The Aeronautical Society of India	Dr.Job Kurian. Prof.& Head, Aerospace department IIT Madras
3.	Emerging Scenarios in Maintenance of Heavy Aircraft	24.6.2009	The Aeronautical Society of India	Mr.KV Krishnan Vice President Engineering, AMRO,Airworks
4.	Recent Advances in Aerospace Propulsion Technology	24.2.2010	The Aeronautical Society of India	Dr.SR Chakravarthy Aerospace department IIT Madras
5.	Emerging Trends of CAD/CAE in Aerospace Applications	15- 09 - 2010	The Aeronautical Society of India	Gp.Capt. Verma Commanding Officer MTI, Air Force
6.	Modern Technology in Maintenance of Heavy Aircraft	27-01-2012	The Aeronautical Society of India	Wg.Cdr. Manoharan. Quality Engineer, Blue Dart Aviation.
7.	Modern Technology On Design & Maintenance Of Helicopters	23-01-2013	The Aeronautical Society of India	Brigadier V.S Saini Officer Training Academy
8.	Development in the Design of Helicopter	29.01. 2014	The Aeronautical Society of India	Gp.Cpt.Sambasivarao

Workshops				
1.	Avionic Systems of Heavy Aircrafts	30-06-2010	The Aeronautical Society of India	Mr.U.S.Paul Russel, AIR India Chief Engineer
2.	Design and Development UAV	2 nd to 5 th Dec 13 & 6 th to 9 th Dec13	The Aeronautical Society of India	Mr.Santhosh Unmanned Engineeria
3.	Supersonic Airflow in Wind tunnel	7 th Feb 2014.	The Aeronautical Society of India	Prof. Kanagarajan Chairman,Ae.S.I(Chennai Branch)
4.	Computational Fluid Dynamics	22 nd – 24 th August 2014	-	Prof. Dr. S.Venkatesan Dept. of Applied Mechanics IIT, Madras Dr. K.Arul Prakash Asst. Professor Dept of Applied Mechanics IIT, Madras

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects:
 - 13.63% of students from batch 2006-2010
 - 11.53% of students from batch 2007-2011
 - 12.5% of students from batch 2008-2012
 - 12.5% of students from batch 2009-2013
 - 54% Of Students From Batch 2010-14
 - 65% of students from Batch 2011-15
 - 84.55% of students from batch 2012-16

- Percentage of students doing projects in collaboration with other universities/industry / institute:
 - 15.45% of students from batch 2012-16
 - 8% percent in collaboration with industry (Glider Aviation Services, Chennai)

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		-	-
Students	(Extra / Cocurricular)	24	6
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	outstanding participants *
National Seminars				
1.	Current Status & Emerging Trends in Aircraft Maintenance	16.7.2008	The Aeronautical Society of India	Mrs. Tulsi N. Mirchandaney Managing Director, Blue Dart Aviation
2.	Current Status & Changing Trends in Aero Space Activities	27 to 29 Jan-2009	The Aeronautical Society of India	Dr.Job Kurian. Prof.& Head, Aerospace department IIT Madras
3.	Emerging Scenarios in Maintenance of Heavy Aircraft	24.6.2009	The Aeronautical Society of India	Mr.KV Krishnan Vice President Engineering, AMRO,Airworks

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	outstanding participants *
4.	Recent Advances in Aerospace Propulsion Technology	24.2.2010	The Aeronautical Society of India	Dr.SR Chakravarthy Aerospace department IIT Madras
5.	Emerging Trends of CAD/CAE in Aerospace Applications	15- 09 - 2010	The Aeronautical Society of India	Gp.Capt. Verma Commanding Officer MTI, Air Force Wg.Cdr. Manoharan.
6.	Modern Technology in Maintenance of Heavy Aircraft	27-01-2012	The Aeronautical Society of India	Quality Engineer, Blue Dart Aviation.
7.	Modern Technology On Design & Maintenance Of Helicopters	23-01-2013	The Aeronautical Society of India	Brigadier V.S Saini Officer Training Academy
8.	Development in the Design of Helicopter	29.01. 2014	The Aeronautical Society of India	Gp.Cpt.Sambasivarao
Workshops				
1.	Avionic Systems of Heavy Aircrafts	30-06-2010	The Aeronautical Society of India	Mr.U.S.Paul Russel, AIR India Chief Engineer
2.	Design and Development UAV	2 nd to 5 th Dec 13 & 6 th to 9 th Dec13	The Aeronautical Society of India	Mr.Santhosh Unmanned Engineeria
3.	Supersonic Airflow in Wind tunnel	7 th Feb 2014.	The Aeronautical Society of India	Prof. Kanagarajan Chairman,Ae.S.I(Chennai Branch)

31. Code of ethics for research followed by the departments

Code of Ethics for research

- Student involved in research get credit of being spared extra hours to concentrate their research at AERO CAD LAB
- Research students are spared to go to IIT Madras / IIT Kanpur/IISc. Bangalore for discussion with specialists in research.
- Research student are being taken to Industries/ R&D organization like HAL/ADA/ADE/ASTE to pursue their research in consultation with the experts
- Research students if residing in Hostels are permitted to use AERO CAD LAB during off-hours on holidays and Saturdays. The girl students are permitted to avail this facility on working days.

32. Student profile programme-wise :

a)

Name of the Programme (refer to question 4)	Application received	Selected	
		Male	Female
UG 2016 - 2020	700	34	8
UG 2015 - 2019	400	32	8
UG 2014 - 2018	1600	44	13
UG 2013 - 2017	1525	40	21
UG 2012 - 2016	3080	101	09
UG 2011 - 2015	2750	86	20

b)

Name of the Programme (refer to question 4)	Pass Percentage	
	Male	Female
UG 2016 - 2020	81%	19%
UG 2015 - 2019	80%	20%
UG 2014 - 2018	55%	88%
UG 2013 - 2017	60%	90.47%
UG 2012 - 2016	41.66%	70%
UG 2011 - 2015	20.93%	75%

33. Diversity of students:

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
PhD	71.42%	28.58%	NIL	NIL

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)
1.	GATE	02 (2008) 01 (2005) 01 (2010)
2.	TOEFL	03 (2014) 03(2013) 04 (2012)
3.	GRE	04 (2011) 06 (2012) 05(2013) 06(2014) 05(2015)
4.	IELTS	09(2012) 06(2013) 06(2014) 02(2015) 01(2016)

35. Student progression

Student progression	Percentage against enrolled
UG to PG	NIL
PG to M.Phil.	NIL
PG to Ph.D.	71.42%

Student progression	Percentage against enrolled
Ph.D. to Post-Doctoral	NIL
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	12% 10%
Entrepreneurs	5%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	15%
from other universities within the State	85%
from universities from other States	NIL
from universities outside the country	NIL

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : TWO

38. Present details of departmental infrastructural facilities with regard to

a) Library : Department library

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	

5738	76	20.80 Lakhs
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- b) Internet facilities for staff and students
 Staff – **10 pcs**
 Students – **90 pcs**
- c) Total number of class rooms – **04 Nos**
- d) Class rooms with ICT facility – 1
- e) Students' laboratories

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipments
1	ELEMENTS OF AERONAUTICS LAB	1080 Sq.ft	7.5 Lakhs
2	AERODYNAMICS	2160 Sq.ft	23 Lakhs
3	COMPOSITE STRUCTURES	1080 Sq.ft	15 Lakhs
4	AIRCRAFT STRUCTURES	1080 Sq.ft	21 Lakhs
5	AIRCRAFT STRUCTURAL REPAIR & PRACTICE	1620 Sq.ft	24 Lakhs
6	AEROSPACE PROPULSION	1080 Sq.ft	25 Lakhs
7	AIRCRAFT SYSTEMS	4600 Sq.ft	2 Crores
8	AVIONICS	1080 Sq.ft	2 Lakhs
9	AERO ENGINE REPAIR & MAINTENANCE PRACTICE LAB	1620 Sq.ft	40 Lakhs
10	AERO CAD LAB	6320 Sq.ft	53 Lakhs

39. **List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university :2
- b) from other institutions/universities : 1

40. **Number of post graduate students getting financial assistance from the university** : NIL
41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:**
NIL
42. **Does the department obtain feedback from**

- a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. The faculty teaching the subject of Engineering Mathematics conducts coaching classes in mathematics during off – hours and has shown significant improvement in subsequent university examination of obtaining outstanding results.

- b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

- Consolidated feedback from students for obtained by the head of the department and corrective actions are implemented in connection with obtaining good results.

- c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

- Alumni meet is generally organized once a year to motivate the existing students with their experience in contact with employers (Management) during their tenure as students in the university. They share their experience as how they could achieve their present executive posts in their industries.

43. **List the distinguished alumni of the department (maximum 10)**

S.No	Name	Students Batch	Position
1.	Esha Reddy	2006-2010	Planning Engineer, JET Airways
2.	Haniksha Kabra	2006-2010	Infosys,Pune
3.	Deepak	2006-2010	Project Engineer,Honeywell

4.	Nirmal	2007-2011	Pilot-AIR INDIA
5.	M.Srinivasan	2007-2011	Project Engineer,Honeywell
6.	Nophina Lorety	2007-2011	Lecturer, Boltan University, UK
7.	Aravind Murali	2008-2012	System engineer, USA
8.	Asfaque Ali	2008-2012	Design Engineer,
9.	Abinav	2008-2012	Research scholar, MIT, USA
10.	Jasleen	2011-15	Astronaut,USA

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Workshops	3
Seminars	16

45. List the teaching methods adopted by the faculty for different programmes.

Methods of instruction for UG Programme

- Lecturing by visual aids to help students visualize the problem.
- Teaching through examples or experiments.
- Group discussion
- Conveying through demonstration
- Making them assuming the role of the teacher to teach others in group wise.
- Strengthening their speaking and communication skills

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
Methods to ensure meeting of programme objectives and monitoring of learning out comes**

- Scientifically valid techniques are used
- Aspects relevant to programme objectives are measured
- Monitoring the results of examinations are carried out regularly and consistently
- Accurate records of progress are maintained
- Assessing the outcomes and effectiveness of programme objectives and thinking about new ways of doing things.

47. **Highlight the participation of students and faculty in extension activities.
Highlighting the participation of students.**

- Encouragement of Paper Presentations by students
- Research activities on Unmanned Aerial Vehicles
- Aero modeling including helicopter
- Competitions in flying of R/C Models

Faculty in Extension activities:

- Initiating in aero modeling
- Competitions in flying of R/C models
- Construction of different types of Unmanned Air Vehicles(UAV)
- Training Design software tools of CATIA V5 R-21 and Msc Nastran and Patran 2012.

48. Give details of “beyond syllabus scholarly activities” of the department.

Beyond Syllabus Scholarly Activities:

- Participation in international competition on **Fuselage Design** of Heavy Aircraft
- Participation in international competition on **Wing Design** of Heavy Aircraft
- Participation in international competition on **Design of Empennage** of Heavy Aircraft
- Participation in international competition on **Design of Front End and Landing Gears** of Heavy Aircraft
- Participation in international competition on **Design of Helicopters**

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Programme Graded By Other Agencies

- Category ‘A’ graded by the task force appointed by MHRD.
- Certified by ISO 9001-2008 by DNV.

Global Winners in Aircraft Design (Spirit Global Design Challenge)

- Two Students of aeronautical engineering department are recognized for selection to first place by the judges of **Spirit Aero System** (US) in appreciation as the top project during the year 2011. The participants are from the universities from USA (Wichita and North Carolina), UK, Malaysia and India participated in the championship. The project is on Aircraft Design of Fuselage of 165 seater aircraft.
- Two Students of aeronautical engineering department are recognized for selection to Third place by the judges of **Spirit Aero System** (US) in appreciation as third place in project during the year 2012.

- Acknowledgement of '**BEST COLLEGE TEAM- I**' award in aero in **Tamil Nadu** in **IIT Madras** open Quiz on 16th January 2011.
- Four aero students won the First and Second prizes in all India competition on poster presentation at **IIT Kanpur** on 26-27 Feb 2010
- **M.Aravind** participated in **National Working Model Contest** at Nasik in March 2009. His project '**Stirling Engine**' won a cash award of Rs.10,000/-
- **M.Srinivasan** won the **silver** medal and was presented cash award Rs.10,000/- in **ALL INDIA DESIGN COMPETITION FOR ENGINEERING STUDENTS - 2009**

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

New Knowledge:

Aircraft Structural Design: Software courses in design such as Catia V5, Nastran & patron are conducted for above average students to strengthen the basics required for development knowledge aircraft structural design., Made them to undergo 2 courses of 20days each on Heavy aircraft structural design on wings and fuselage at Bangalore Aircraft Industrial Limited (BAIL) under the course conducted Dr.PK Dash former Dy. Director in design at NAL Bangalore.

Basic Maintenance Training:

Basic maintenance of aircraft are being covered during leisure hours by AME instructors specialized in aircraft structures and Propulsion of heavy body aircraft sectors Boeing and Air Bus having rich experience in IAF employed at the university.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths

- Speciliased staff in all areas of Aerospace Engineering.
- Appreciable research facilities
- A good website to provide latest information in aerospace activities in global level
- Existing staff with high degree of knowledge is requisite software for evaluation of structural Analysis of aircraft.

- High level of Infra-Structure to pursue aircraft design.

Weaknesses

- Unable to encourage entrepreneurship due to the requirement of heavy financial resources.
- Existing constraints in security imposed in industries/R&D Establishment

Opportunities

- Existence to avail project funds by DST- FIST, DPE, DBT, ICSSR, AICTE, UGC-SAP/CAS. Etc.
- Existence of Recognition in state / national / international level for research.
- Availability of special 'International Research Centre' at the university.
- Existence of huge Central Library with resources in university
- Encouragement by management to pursue research.

52. Future plans of the department.

- To introduce Full Time PG programme (ME Aeronautical Engineering) with the inclusion of design subjects in the syllabus
- To strive hard for achieving 100% results in UG Programme
- To participate in international competition held in Helicopter Design besides participation in design of Heavy Body Aircraft
- To introduce Aircraft Maintenance Engineering (AME) course for specialization in aircraft maintenance.
- To participate in international competition held in Helicopter Design besides participation in design of Heavy Body Aircraft
- To introduce Aircraft Maintenance Engineering (AME) course for specialization in aircraft maintenance.

4. SCHOOL OF BIO AND CHEMICAL ENGINEERING

1. **Name of the Department** : Department of Chemical Engineering
2. **Year of establishment** : 1995
3. **Is the Department part of a School/Faculty of the university?**
School of University - School of Bio & Chemical Engineering.
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc. D.Litt., etc.)**
 - **UG** – B.TECH (CHEMICAL ENGINEERING)
 - **UG** – B.TECH (CHEMICAL ENGINEERING) – PART TIME
 - **PG** – M.E (ENVIRONMENTAL ENGINEERING)
 - **PG** – M.TECH (ENERGY ENGINEERING)
 - **PG** – M.Sc (ENERGY SCIENCE)
 - **PG** – M.TECH (GREEN ENGINEERING AND TECHNOLOGY)
 - **PG** – M.TECH (BY RESEARCH)
 - **Ph.D**
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc** : NIL
7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester Based System –Choice Based Credit System

9. **Participation of the department in the courses offered by other departments**

Sl.No.	Name of the course	Service offered to the departments
1.	Introduction to Unit Operations & Process Calculations	Biotechnology
2.	Chemical Engineering Thermodynamics	Biotechnology
3.	Modeling & Transport Phenomena for Bio process	Biotechnology
4.	Bio Process Instrumentation & Control	Biotechnology
5.	Mass Transfer for Biological systems	Biotechnology
6.	Principles of Chemical Engineering	Biotechnology
7.	Environmental Science & Engineering	B.Tech (All Branches)

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	02	02
Associate professors	03	03
Assistant Professors	08	08

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	No. of years of experience				No. of students guiding	
					Teac.		Ind.	Res.	Ph.D	M.E. / M.Tech.
					After PG	Before PG				
1.	Dr. D. Joshua Amarnath	MBA, M.Tech., Ph.D.,	Professor	Chemical Engineering (Bio-sorption, Solid Waste Management, Alternate fuels)	15 yr, 7 mon	4	2	-	6	-
2.	Dr. A. Annam Renita	M.Tech., Ph.D.,	Professor	Chemical Engineering (Biofuels)	15 yr	-	-	-	1	-
3.	Dr. B.S. Naveen Prasad	M.S. (By Research), Ph.D.,	Associate Professor	Chemical Engineering (Nano Technology)	12 yr 6 mon	-	-	-	-	-
4.	Mr. D. Prabhu	M.S. (By Research), (Ph.D.,)	Associate Professor	Chemical Engineering (Nano Technology)	12yr	-	2	-	-	-
5.	Dr.S.Sathish	M.E., Ph.D.,	Associate Professor	Environmental Engineering (Waste Management)	5 yr, 2 mon	-	7	-	-	-
6.	Mr.P.Senthilkumar	M.E., (Ph.D.,)	Assistant Professor	Chemical Engineering (Biopolymer)	12 yr, 6 mon	-	-	-	-	-
7.	Mr.D.Venkatesan	M.Tech., (Ph.D.,)	Assistant Professor	Chemical Engineering (Modelling and Simulation)	11 yr, 3 mon	4	1	-	-	-
8.	Ms. N.T. Mary Rosana	M.E., (Ph.D.,)	Assistant Professor	Environmental Engineering (Solar cells)	11 yr, 1 mon	2	-	-	-	-

9.	Ms. A. Jayapradha	M.E., (Ph.D.,)	Assistant Professor	Environmental Engineering (Environmental Management)	10 yr, 10 mon	-	-	-	-	-
10.	Mr.M.Arul Jayan	M.Tech., (Ph.D.,)	Assistant Professor	Bio-pharmaceutical Technology	8 yr, 1mon	1	2	-	-	-
11.	Mr.J.Arvindkumar	M.E., (Ph.D.,)	Assistant Professor	Environmental Engineering	7 yr, 2mon	5	0.6	-	-	-
12.	Mr. T. Ravi	M.Tech., (Ph.D.,)	Assistant Professor	Chemical Engineering (Modelling, Simulation and Optimization)	6 yr, 6 mon	-	-	3.5	-	-
13.	Mr.P. Mohanraj	M.Tech.	Assistant Professor	Chemical Engineering (Biopolymer)	3yr, 2 mon	-	-	-	-	-

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors**

- Dr.V.K.Jayaraman, Scientist, Chemical Engineering Division, National Chemical Laboratory, Pune.
- Dr.Patnaik, Chief Advisor, Health, Safety & Environment, NIKO Resources Limited, Mumbai.
- Dr.Kurian Joseph, Associate Professor, Centre for Environmental studies, Anna University.
- Mr.Hermann Koller, Managing Director, International Solid Waste Association, Vienna.

13. **Percentage of classes taken by temporary faculty-programme –wise information** : NIL

14. **Programme- wise Student Teacher ratio**

- By considering the subjects handled by faculty of other departments, the staff student ratio is 1:15

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Staff Category	Sanctioned	Filled
Academic support staff (Technical)	02	02

16. **Research thrust areas as recognized by major funding agencies**

- Mass Transfer Studies in Pulsed Column.
- Waste Management (Treatment of various industrial effluents)
- Enzyme Technology
- Alternate Fuels
- Biopolymers

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned	Duration
1.	Prof. Soundarajan Krishnan	"Heat Transfer Studies in Porous Media	ISRO	2004	3.64 Lakhs	Completed
2.	Dr. D. Joshua Amarnath	Hydrodynamics and Mass Transfer Studies in Pulsed Column with Disc and Doughnut Internals	IGCAR	2005	8.68 Lakhs	Completed
3.	Dr. D. Joshua Amarnath	Solar Energy for Steam Cooking and Heating Purpose	TEDA & MNES	2006	113 Lakhs	Completed
Total					125.32 Lakhs	

18. **Inter-institutional collaborative projects and associated grants received** : Nil

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned	Duration
1.	Prof. Soundarajan Krishnan	"Heat Transfer Studies in Porous Media	ISRO	2004	3.64 Lakhs	Completed
2.	Dr. D. Joshua Amarnath	Hydrodynamics and Mass Transfer Studies in Pulsed Column with Disc and Doughnut Internals	IGCAR	2005	8.68 Lakhs	Completed
3.	Dr. D. Joshua Amarnath	Solar Energy for Steam Cooking and Heating Purpose	TEDA & MNES	2006	113 Lakhs	Completed
Total					125.32 Lakhs	

20. **Research facility / centre with**

State Recognition - NIL

National Recognition -

- Centre for Nanoscience and Nano technology in association with IGCAR Kalpakam.
- Centre for Earth and Atmospheric sciences in association with IGCAR Kalpakam.
- Centre for Waste Management in association with NSWAI
- Centre for Climate Change Studies
- Centre for Ocean research in association with NIOT.

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

S.No	Name of the Equipment	Agency Sponsored / Industry
1	Pulsed Disc and Doughnut column	IGCAR

22. **Publications:**

- Number of papers published in peer reviewed journals (national / international) : 169
- Monographs : NIL
- Chapters in Books : 1
- Edited Books : NIL
- Books with ISBN with details of publishers : 01
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : SCOPUS – 94; WOS - 8
- Citation Index – range / average : 0 – 60 / 2.13
- SNIP : 0.017 – 1.707
- SJR : 0.105 – 1.705
- Impact Factor – range / average : 0 – 3.959 / 0.5935
- h-index : 9

23. **Details of patents and income generated** : NIL
24. **Areas of consultancy and income generated** : NIL
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad.** : NIL
26. **Faculty serving in**

a) National committees

Name of the Faculty	Position / Post	Name of the Committee
Dr.Joshua Amaranth D	Executive Member	IIChE- Chennai Regional Centre
Dr.B.S.Naveen prasad	Executive Member	IIChE- Chennai Regional Centre

b) International committees : NIL

c) Editorial Boards : Nil

Others - As Reviewer

Name of the Faculty	Name of the Journal
Dr. A.Annam Renita	<ul style="list-style-type: none"> • Journal of Civil & Environmental Engineering. • Journal of Material Sciences & Engineering. • Journal of Bioprocessing & Biotechniques. • Journal of Biomedical Systems & Emerging Technologies
Dr.B.S.Naveenprasad	<ul style="list-style-type: none"> • Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy-Elsevier • International Journal of Agriculture Innovations and Research
Mr.D.Prabu	<ul style="list-style-type: none"> • Journal of Nanoparticle Research-Springer
Dr.S.Sathish	<ul style="list-style-type: none"> • International Journal of Pharma and Pharmaceutical Sciences
Ms.N.T.MaryRosana	<ul style="list-style-type: none"> • Solar Energy - Elsevier
Ms.A.Jayapradha	<ul style="list-style-type: none"> • Habitat International- Elsevier

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S No	Date	Name of the Program	Topic
1	13-14, March,2015	TEQIP	Strengthening chemical engineering curriculum for the present and future scenario
2	7 th Feb,2015	Training programme	MATLAB and MS-Excel
3	02 nd – 06 th November, 2015.	FDP	RECENT TRENDS IN ENERGY, ENVIRONMENT AND E-WASTE MANAGEMENT
4	6 th may2014	FDP	Communication and interaction Skills
5	28 th March 2014	Workshop	Artificial Neural Network(ANN)Modeling using MAT LAB
6	22 nd August 2013	Seminar	Safety in Chemical Industries
7	13- 14,June 2013	Seminar	Occupational Hazardous in Process Industry: safety in Design and Operation
8	Oct 24 2013	Seminar	Ground Water Legislation in India
9	13- 14,June 2013	Seminar	Occupational Hazardous in Process Industry: safety in Design and Operation
10	18th February 2012	Seminar	Safety Aspects in Process Plant Design
11	22 nd August 2013	Seminar	Safety in Chemical Industries
12	7 th March 2013	FDP	Financial Literacy
13	26 th may 2013	FDP	Contemporary Research and Practices in Pollutant Elimination systems Towards Cleaner Environment
14	10- 15,Jun,2013	Work shop	Chemical Process Modeling and Simulation
15	10-15,Jun,2013	Work shop	Chemical Process Modeling and Simulation
16	Oct 24 2013	Seminar	Ground Water Legislation in India
17	7 th &8 th Mar. 2011	Seminar	National level technical meet on nano science and technology

18	13- 14,June 2013	Seminar	Occupational Hazardous in Process Industry: safety in Design and Operation
19	18 th February 2012	Seminar	Safety Aspects in Process Plant Design
20	26-30,Nov. 2012	Short Term Training Course	Applications of Process Simulators In Chemical Engineering
21	7 th Jun 2011	International Seminar	Waste management
22	30 th May 2011	Workshop	Nanocoatings and applications
23	7 th June	Seminar	Waste Management
24	11-12 June 2011	Workshop	Fuel Cell Technology
25	13-18 th June 2011	FDP	Computer Applications in chemical & Biological Engineering
26	August 22 -25 th 2011	Workshop	Application of Geoinformatics for the impact of climate change on natural resource management. (GEO – ICCNRM)
27	18 th Feb	Seminar	Safety Aspects in Process plant design
28	June 11&12, 2011	Seminar	Fuel Cell Technology
29	27,January 2010	Workshop	Recent Advancements in Pollution control
30	27 Aug, 2010	Seminar	Patent Literacy Campaign, Expert Lecture Series on Intellectual property rights
31	Dec-10	FDP	Energy Conversion and Conservation
32	8 th &9 Jan. 2010	Seminar	National level technical meet on nano science and technology
33	1-3,Sept. 2009	Seminar	Advanced techniques in Molecular Biotechnology
34	27 Feb. 2009	Seminar	Trends in Microbial Research
35	20 Aug. 2008	FDP	Innovative approaches in Biotechnology
36	11 Aug. 2008	Seminar	Current trends in drug discovery
37	14-16, Feb. 2008	Seminar	Activated carbon embedded in nanochips for the removal of heavy metal toxicity in Industrial effluents

28. **Student projects**

- percentage of students who have done in-house projects including inter- departmental projects
B. Tech – Chemical Engineering Regular

Sl. No	Year	In-House Projects
1	2012-2016	55%
2	2011-2015	65%
3	2010-2014	54%
4	2009-2013	84%
5	2008-2012	46%

B. Tech – Chemical Engineering -Part time

Sl. No	Year	Sathyabama University
1	2012-2016	5%
2	2011-2015	-
3	2010-2014	6%
4	2009-2013	-
5	2008-2012	7%

- percentage of students doing projects in collaboration with other universities / industry / institute
B. Tech – Chemical Engineering Regular

Sl. No.	Year	Other Univ. / Industry/Institution
1	2012 - 2016	45%
2	2011 – 2015	35%
3	2010 – 2014	46%

4	2009 – 2013	16%
5	2008 – 2012	54%

B. Tech – Chemical Engineering Part time

Sl. No	Year	Other Univ./Industry/Institution
1	2012–2016	95%
2	2011-2015	100%
3	2010-2014	94%
4	2009-2013	100%
5	2008-2012	93%

M. E – Environmental Engineering

Sl. No	Year	Other Univ./Industry/Institution
1	2013 – 2016	100%
2	2012 – 2015	100%
3	2011--2013	100%

29. Awards / recognitions received at the national and international level by –

		National Level	International Level
Staff		6	-
Students	(Extra / Cocurricular)	43	-
	Sports	01	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any :** NIL

31. **Code of ethics for research followed by the departments**

Academic research follows elevated professional standards, including appropriate research design and frameworks, adheres to high levels of research ethics and abides by the requirements of the University. Academic integrity in terms of the commitment to the values of honesty, trust, fairness, respect, responsibility, legality and dissemination are followed.

32. **Student profile programme-wise:**

a) UG (B.Tech – Full Time)

Batch	Application received	Selected	
		Male	Female
2011-2015	2783	84	37
2012-2016	4002	100	38
2013-2017	3132	75	41
2014-2018	3102	80	26
2015-2019	1570	54	11
2016-2020	140	29	2

UG (B.Tech – Part Time)

Batch	Application received	Selected	
		Male	Female
2012-2015 (Jun)	36	23	1
2013-2016 (Jan)	24	14	0
2013-2016 (Jun)	22	12	0
2014-2017 (Jun)	18	8	0
2016–2020 (Jan)	40	31	0
2016–2020 (Jun)	19	15	1

PG (M.E – Environmental Engineering – Part Time)

Batch	Application received	Selected	
		Male	Female
2012-2015	18	13	5
2013-2016	5	5	0

b) University Results- APR/MAY 2016 Examination

UG (B.Tech – Full Time)

Batch	Result	
	Male	Female
2012-2016	76%	95%
2013-2017	59.26%	97.62%
2014-2018	66.67%	96%
2015-2019	72%	100%

UG (B.Tech – Part Time)

Batch	Result	
	Male	Female
2012-2015 (Jun)	92.5%	NA
2013-2016 (Jan)	61.5%	NA
2013-2016 (Jun)	87.5%	NA
2014-2017 (Jun)	25%	NA
2016-2020 (Jan)	70.9%	NA

PG (M.E – Environmental Engineering – Part Time)

Batch	Result	
	Male	Female
2013-2016	66.67%	NA

33. **Diversity of students**

PG (M.E – Environmental Engineering – Part Time)

Batch	Students from the same University (%)	Students from Other Universities Within the State (%)	Students From Universities Outside The State (%)	Students From Other Countries (%)
2012-2015	6.7	93.3	0	0
2013-2016	0	100	0	0

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.(for the past five years)**

S.No	Particulars	Strength
1.	GRE	16
2.	TOFEL	3
3.	GATE	16

35. Student progression

Student progression	Percentage against enrolled
UG to PG	20%
PG to M.Phil.	NA
PG to Ph.D.	<10%
Ph.D. to Post-Doctoral	<1%
Employed	
• Campus selection	40%
• Other than campus recruitment	30%
Entrepreneurs	4%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	30.77%
from other universities within the State	61.54%
from universities from other States	7.69%
from universities outside the country	NIL

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

S.No	Year	No of Faculty
1	2008-2009	03
2	2009-2010	Nil
3	2010-2011	Nil
4	2011-2012	01
5	2012-2013	03
6	2013-2014	Nil
7	2014-2015	Nil

38. Present details of departmental infrastructural facilities with regard to

a) Library

No of Books		Cost
No. of Text Books	No. of Reference Books	
8799	200	Rs. 29,56,512

b) Internet facilities for staff and students

Internet facilities are available for staff and students. Wifi connection is available at Central Library

c) Total number of class rooms

Number of class rooms available is eight.

d) Class rooms with ICT facility: 1

e) Students' laboratories

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1.	Physical Chemistry Laboratory/Organic Process/Technical Analysis Laboratory Environmental Engineering Laboratory	1910	4,25,825
2.	Mechanical Operations Laboratory	1650	7,03,000
3.	Mass Transfer Laboratory	1910	5,89,680
4	Chemical Reaction Engineering.	1910	5,01,250
5	Fluid Mechanics (Shared with Mechanical Engineering Department)	4190	5,72,000

6	Heat Transfer (Shared with Mechanical Engineering Department)	5680	4,25,000
7	Process Dynamics and Simulation Laboratory (Shared with E&C Department)	2090	42,00,000
8	Remote Sensing and GIS Laboratory (Shared with Remote Sensing Centre)	880	65,00,000

39. **List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university :4
- b) from other institutions/universities : 5

40. **Number of post graduate students getting financial assistance from the university-**
Two student for M.Tech (By Research).

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Rigorous assessment exercise is conducted before the development of new programmes. The methodology includes
Inviting Industry experts for discussion in Departmental Board of studies for further development of courses.
Consultation with experts in adjacent industries and research organizations.
Consultation with experts in other educational institutions.
Consultation with alumni.

42. **Does the department obtain feedback from?**

a. **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, thorough evaluation was carried out on course curriculum by series of team of experts from premier Institutes like IIT Madras, BITS, Pondicherry University, IGCAR, Kalpakkam etc. The feedbacks from different team of experts are compiled and incorporated in the course curriculum for the academic growth of the students.

b. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes, learning evaluation is carried out by teachers from time to time by conducting a surprise quiz verbally or by writing. Official semester exams are conducted twice in each semester. Teaching evaluation is carried by students at the end of each semester giving performance index to the faculties. Based on various feedback obtained from students, teachers improve the method of teaching by discussing with the students.

c. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Yes, There is a very active Alumni Association at Sathyabama University and most of the faculties are in close interaction with them .Department usually get feedback from them informally. Beside this Department gets the feedback regarding impression of the employer from Placement & Training Office of Sathyabama University. Effected in revision of curriculum through Board of Studies to review the curriculum and the syllabus. Also the Training & Placement Department takes feedback from the employers during Campus placement. This feedback is taken directly by the Placement Coordinators who accordingly inform HOD to make changes in the curriculum to make it more contemporary.

43. **List the distinguished alumni of the department**

S.No	Name	Students Batch	Position
1.	Zafar Abdul	2005-2009	Process Engineerr-Public Water Treatment Company,Doha
2.	Rajat Jain	2005-2009	Director-Hermitage Pvt.Ltd
3.	Arun Kumar	2006-2010	Executive Engineer. Asian Paints
4.	Madhan	2006-2010	Executive Engineer - Thermal storage
5.	Imranul Islam Laskar	2008-2012	Executive engineer - Sanmar
6.	Jeffery Fernando	2008-2012	Entrepreneur
7.	Gokula Kannan	2008-2012	Entrepreneur

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	42
Workshops	2
Seminars	5

45. List the teaching methods adopted by the faculty for different programmes.

- Traditional Teaching Method
 - Chalk & Talk Method
- Modern Teaching Method
 - Power point presentation using OHP Projector
 - Explain the concept with some practical examples.
 - By giving more tutorial classes and assignments.
 - Group discussions and group activity
 - Lectures with working models,
 - Seminars, guest lecture, workshops
 - Industrial visit
 - Modern teaching facilities like Animation Videos, video/audio facilities & technical video resources

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**
- Students are counseled by the Subject Coordinator, Course Instructor and Counselor as per the need of the Class /Student
 - Two assessments per course are conducted in a semester.
 - Model Exam is held before the End Semester Exam.
 - Student Feed back to the Year Co-ordinator at the end of each semester.
 - Students are counseled by the Course Instructor and Counselor as per the need of the Class /Student.
 - Faculty meeting are held at regular intervals to monitor progress of academic and other activities.
47. **Highlight the participation of students and faculty in extension activities.**
- Students**
- All students register and actively participate in one or more of the Following:
 - National Service Scheme (NSS),
 - National Cadet Corps (NCC),
 - Red Cross,
 - Rotaract Club,
 - Various Clubs under Student Development cell
- .Faculty**
- Faculty Training Programmes
 - Summer/Winter School
 - Refresher Courses
 - Club co-ordinator

48. Give details of “beyond syllabus scholarly activities” of the department.

- The department encourages students and staff to participate in various national and international conferences to present their work.
- The Department also conducts conferences and symposia each year
- Guest lectures are organized by inviting experts from Research Institutes, Universities Abroad and Industry.
- Student Industrial Visits are organized
- Participation of students in seminars, conferences and workshops by presenting posters or oral presentations of their projects.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

- Accredited by NAAC
- Declared as category “A” by the task force appointed by MHRD – Govt. of India
- Certified by ISO 9001:2008 by DNV, Netherlands.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Lot of research studies have been made in different fields of Chemical Engineering. Following are the significant contributions made in last five year.

- Motivating students to participate in Conferences and seminars
- Introducing innovative electives on consultation with industry to impart latest Knowledge
- Inviting Visiting faculty to impart innovative concepts to the students and Faculty members

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

STRENGTHS:

- 4 faculties have PhD degree and rest have registered for PhD.
- Good hands-on training with adequate study material
- There are active research programs and thus faculties are well motivated.
- The stocking of books in the library is adequate and as per norms
- The academic performance of students in the university examination is consistently good.
- Students are placed in reputed concerns and about 80% are placed through campus and off campus placements. Approximately ¼ of the students go for higher studies in reputed institutions.
- Department was started in the year 1995 and still maintains its premier status.
- Recognition and respect of the institute among its peers
- Good relations with the chemical industries, research institutes and professional bodies.
- The department has very active and supportive alumni.
- Intensive advising.
- Leadership and social entrepreneurship opportunities for students

WEAKNESS:

- Patents in high end chemical engineering to be generated.

OPPORTUNITIES:

The discipline is ripe for re-invention to take advantage of the new opportunities in education and working practices. These pressures for change particularly affect university education, personal career development and life-long education. There is a scope to increase earning through patent and consultancy in the relevant areas of advanced technology and to provide relevant technology solutions. MOU's are signed with reputed organization /institutions in the country and abroad which will enhance sharing of knowledge.

- University has signed MOU's with reputed organization /institutions in the country and abroad which will enhance sharing of knowledge.
- The Students are motivated towards research by giving a opportunities as research fellows in funded projects.
- The department of chemical engineering is associated with leading Chemical Industries to strengthen Industry-Institute collaboration
- The International Research Centre (IRC) located inside the campus is used for the benefit of faculty and students.
- Well placed to undertake cross-disciplinary collaboration (research, teaching, service) within and beyond the department in alignment with the university strategic plan due to broad-based disciplinary focus of department faculty and programs
- There is increasing need for different kind of training and applications software in modern industries and as such there is a very bright prospect in opening up of various kinds of long and short term training courses
- Faculty enriched program through Refresher courses

CHALLENGES

- To further strengthen the teaching by giving more focus on laboratory/field works
- Competition from other universities who have more diverse programming opportunities and resources for students
- The other challenges include adjustment and sharing of faculty office with other departments.

52. **Future plans of the department.**

- The department will endeavour to get patents and more projects.
- To develop more number of student entrepreneurs.

1. **Name of the Department** : Department of Biotechnology
2. **Year of establishment** : 2002
3. **Is the Department part of a School/Faculty of the university?**
School of the University- School of Bio & Chemical Engineering
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
UG : B. Tech – Biotechnology
PG : M. Tech – Biotechnology
M. Tech Marine Biotechnology
M. Sc– Biotechnology
M. Tech Biotechnology –Part time
Research: M. Phil– Biotechnology
M. Tech by Research
Ph. D
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : NIL
7. **Details of programmes discontinued, if any, with reasons** : NIL

8. Examination systems; Annual/ Semester/ Trimester/Choice based credit system:

Semester -Absolute credit based system

9. Participation of the department in the courses offered by other departments:

Name of the Subject	Service offered to the other Departments
Environmental Science and Engineering	To all the Engineering Departments
Biology For Engineers	Department of Chemical Engineering
Engineering Chemistry	To all the Engineering Departments
Physics Lab	To all the Engineering Departments
Chemistry Lab	To all the Engineering Departments

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	6	6
Associate professors	7	7
Assistant Professors	12	12
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.NO	NAME OF THE FACULTY	QUALIFICATION	DESIGNATION	SPECIALIZATION	EXPERIENCE			NO. OF Ph. D / M.TECH (RES)/ M.PHIL STUDENTS GUIDED FOR THE LAST 4 YEARS
					TEACHING	INDUSTRY	TOTAL	
1.	Dr. Valli Nachiyar	M.Sc. Ph.D	Professor and Head	Environmental Biotechnology Microbial Biotechnology	12.6	6	18.6	4 Ph.D completed, 3 (Guiding) 4 (M.Phil)
2.	Dr. Jayshree Nellore	M.Sc., Ph.D	Professor	Neuroscience and Nanobiotechnology	12	7	19	2 (Guiding) 5 (M.Phil)
3.	Dr. Masilamani Selvam	M.Sc. Ph.D	Professor	Marine Biotechnology	10	6	16	4 Ph.D completed, 3 (Guiding) 2 (M.Phil)
4.	Dr. M Bavani Latha	M.Sc., Ph.D.,	Professor	Biochemistry	13	10	23	1 Ph.D. (Guiding) 1 (M.Phil)
5.	Dr.V. Ramesh Kumar	M.Sc.,M.Phil., PGDCA, PGDBI, MBA, Ph.D.	Professor	Biochemistry	16	-	16	2 (M.Phil)
6.	Dr. J. V. Reji	M.Sc., M.Tech Ph.D	Professor	Plant biotechnology and Molecular biology	8.7	11	19.7	1 Ph.D. (Guiding) 2 (M.Phil)
7.	Dr. S. Karthick Raja Namasivayam	M.Sc., Ph.D	Associate Professor	Microbial Biotechnology	11	3	14	4 Ph.D completed, 5 (Guiding) 4 (M.Phil)
8.	Dr. Antony V. Samrot	M.Sc.M.Phil., Ph.D.	Associate Professor	Microbiology	10	4	14	4 Ph.D. (Guiding) 2 (M.Phil)

9.	Dr. Y. Swarnalatha	M.Sc, Ph.D	Associate Professor	Microbiology, Biochemistry, Biotechnology, Molecular Biology	13	-	13	
10.	Dr. D. Prabavathy	M.Sc ,M.Phil, Ph.D	Associate Professor	Molecular Biology Genetics	16	-	16	
11.	Dr. P. Amali	M.Sc. Ph.D.	Associate Professor	Biotechnology	13		13	
12.	Mr. G. Narendra Kumar	M.Sc., M.Phil., M.Tech	Associate Professor	Microbiology, Bioprocess Engineering	16	-	16	
13.	Ms. N. Utharalakshmi	M.Sc., M.Tech., (Ph.D)	Associate Professor	Microbiology	12	2.5	14.5	
14.	Dr. Swetha Sunkar	M.Sc., M.Tech., Ph.D	Assistant Professor	Bioinformatics, Microbial Biotechnology and Nanotechnology	11.7	-	11.7	
15.	Dr S. Usha Nandhini	M.Sc, M.Phil, Ph.D	Assistant Professor	Microbiology	10.6	1.6	12	
16.	Dr. S. Sudha	M.Sc, M.Phil, Ph.D	Assistant Professor	Microbiology	10	-	10	
17.	Dr. R. Thyagarajan	M.Sc., M.Phil. Ph.D	Assistant Professor	Biochemistry	10	-	10	
18.	Dr. P. Prakash	M.Sc., M.Tech., Ph.D	Assistant Professor	Bioprocess Engg Bio - separation & Down stream Processing Microbiology	9	2.8	11.8	
19.	Ms. A. Brinda Devi	M.Sc.,M.Phil.,(Ph.D)	Assistant Professor	Biochemistry	11	-	11	

20.	Ms. T. Diana Victoria	M.Sc, M.Phil, M.Tech, (Ph.D)	Assistant Professor	Molecular Biology	10	-	10	
21.	Ms. D Subhashini	M. Tech (Ph.D)	Assistant Professor	Biotechnology	10	-	10	
22.	Ms. S. Gnanapriya	M. Tech. (Ph.D.)	Assistant Professor	Biotechnology, Nanotechnology	10	-	10	
23.	Ms. P. Raji	M. Tech. (Ph.D)	Assistant Professor	Biopharmaceutical technology	9	-	9	
24.	Ms. Didi Chinnu Raju	M. Tech (Ph.D)	Assistant Professor	Biotechnology	9	-	9	
25.	Ms. K. Renuga Devi	M. Tech. (Ph.D)	Assistant Professor	Biotechnology	7.10	-	7.10	

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**

- Dr. Muthaih Mariappan, Chairman, State level appraisal Committee, Ministry of Environment and Forests
- Dr. Kurien Joseph, Associate Professor, Centre for Environmental Studies, Anna University, Chennai
- Dr. Swarnajit Singh Cameotra, Deputy Director, Institute of Microbial Technology, Chandigarh
- Dr. V. V. Subramaniam, Director, Biospectrum
- Prof. V. Krishnamurthy, Director, KIA, Chennai
- Dr. Purnasai, Senior Scientist and Head, Department of Biomaterials, CLRI, Chennai
- Dr. Remco Verdoold, Scientist Post Doc, Biochemistry Department, Maastricht University
- Dr. Gnanamani, Senior Scientist, Department of Microbiology, CLRI, Chennai

13. **Percentage of classes taken by temporary faculty-programme –wise information** : NIL

14. **Programme- wise Student Teacher ratio:**

By considering the subjects handled by the faculty of other departments, the staff-student ratio is 1:15.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Technical staffs	2	2

16. **Research thrust areas as recognized by major funding agencies**

- Environmental Biotechnology
- Molecular Biology
- Microbial Biotechnology
- Nanobiotechnology
- Neuroscience
- Marine Biotechnology
- Cancer Research

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.NO	NAME OF PRINCIPAL INVESTIGATOR	TITLE OF THE PROJECT	FUNDING AGENCY	YEAR OF SANCTION	AMT. SANCTIONED (LAKHS)	DURATION
1.	Dr. Valli Nachiyar (Completed)	Construction, characterization of microbial consortia capable of degrading azo dye containing effluent	Department of Biotechnology	2009	14.92	2009-2012
2.	Dr. Bavaniatha (Completed)	Studies on Expression on Oct4, Sox2, FoxD3 and Nanog in UV irradiated Zebra fish embryos	Department of Biotechnology	2010	12.48	2010-2013
3.	Dr. Karthick Raja Namasivayam	Pesticidal activity of cyclodepsipeptide from <i>Nomuraea rileyi</i> (F.) Samson against groundnut defoliator <i>Spodoptera litura</i>	Department of Science & Technology, India	2011	17.84	2011-2014
3.	Dr. Jayshree Nellore	Studies on expression of Nurr1, Forxa1, Engrailed and Lmxla b genes in MPTP induced Parkinsons disease model in zebrafish embryos	DBT	2012	22.85	2012-2015
4.	Dr. Jayshree Nellore	Reversal of Multi Drug Resistant <i>Pseudomonas aeruginosa</i> isolated from various clinical sources by pyochelin - conjugated liposome oleic acids co-encapsulated with combination antibiotics Ref No. No: 5/3/3/18/2010/ECD-I	ICMR	2012	50	2012-2016
TOTAL					1,18,09,000	

18. **Inter-institutional collaborative projects and associated grants received** : NIL
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.NO	NAME OF PRINCIPAL INVESTIGATOR	TITLE OF THE PROJECT	FUNDING AGENCY	YEAR OF SANCTION	AMT. SANCTIONED (LAKHS)	DURATION
1.	Dr. Valli Nachiyar	Construction, characterization of microbial consortia capable of degrading azo dye containing effluent	DBT	2009	14,92,000	2009-2012
2.	Dr. Bavanilatha	Studies on Expression on Oct4, Sox2, FoxD3 and Nanog in UV irradiated Zebra fish embryos	DBT	2010	12,48,000	2010-2013
3.	Dr. Karthick Raja Namasivayam	Pesticidal activity of cyclodepsipeptide from <i>Nomuraea rileyi</i> (F.) Samson against groundnut defoliator <i>Spodoptera litura</i>	DST	2011	Rs.17,84,000	2011-2014
4.	Dr. Jayshree Nellore	Studies on expression of Nurr1, Forxa1, Engrailed and Lmx1a b genes in MPTP induced Parkinsons disease model in zebrafish embryos	DBT	2012	22,85,000	2012-2015
5.	Dr. Jayshree Nellore	Reversal of Multi Drug Resistant <i>Pseudomonas aeruginosa</i> isolated from various clinical sources by pyochelin -conjugated liposome oleic acids co-encapsulated with combination antibiotics Ref No. No: 5/3/3/18/2010/ECD-I	ICMR	2012	50,00,000	2012-2016
6.	DST-FIST		DST		80,00,000	5 years
TOTAL					1,98,09,000	

20. **Research facility / centre with state recognition, national recognition, international recognition.**

- Centre for Ocean Research in association with National Institute of Ocean Technology (National)
- Centre for Nanoscience and Nanotechnology in association with IGCAR (National)
- Centre for Drug Discovery and Development.
- Centre for Bioresource Research and Development. (C-BIRD)

21. **Special research laboratories sponsored by / created by industry or corporate bodies:**

S.NO	NAME OF THE EQUIPMENT	AGENCY SPONSORED / INDUSTRY
1	UV-Visible spectrophotometer	Department of Biotechnology (DBT), Ministry of Science and Technology
2	Rotary evaporator	Department of Science and Technology (DST), Ministry of Science and Technology.
3	Stereo zoom Microscope (Carl Zeiss)	Department of Biotechnology (DBT), Ministry of Science and Technology
4	Uv-Visible spectrophotometer	Department of Biotechnology (DBT), Ministry of Science and Technology
5	Rotary evaporator	Department of Science and Technology (DST), Ministry of Science and Technology.
6	Stereo zoom Microscope (Carl Zeiss)	Department of Biotechnology (DBT), Ministry of Science and Technology
7	Grip Strength Meter	Indian Council of Medical Research (ICMR)
8	Fluorescent Microscope	Department of Biotechnology (DBT), Ministry of Science and Technology

9	Stereo Microscope	Department of Biotechnology (DBT), Ministry of Science and Technology
10	Sonicator Ti probe	Indian Council of Medical Research (ICMR)
11	Cryopreservator	Indian Council of Medical Research (ICMR)
12	Fluorescent Spectrophotometer	Indian Council of Medical Research (ICMR)
13	Animal Activity Measuring	Indian Council of Medical Research (ICMR)
14	Autoanalyzer	Indian Council of Medical Research (ICMR)

22. Publications:

- Number of papers published in peer reviewed journals (national / international) : 465
- Monographs : NIL
- Chapters in Books : NIL
- Edited Books : NIL
- Books with ISBN with details of publishers : NIL
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 307; WOS - 57

- Citation Index – range / average : 1 – 134 / 13.84
- SNIP : 0.04 – 1.567
- SJR : 0.12 - 2.958
- Impact Factor – range / average : 0.109 - 4.242 / 0.6
- h-index : 17

23. **Details of patents and income generated** : 2

Name of the patentee	Title of the invention	Department	Application no	Patent no	Date of filing	Date of grant
Dr. Masilamani Selvam	Isolation and partial characterization of Biologically synthesized silver nanoparticles from <i>Streptomyces pseudogriseolus</i> and its antibacterial activity	Biotechnology	2858/CHE/2013 (filed)	-	28-06-2013	-
	An investigation on morphology and anticancerous compound from Actinomycetes	Biotechnology	4125/CHE/2015 (filed)	-	07-08-2015	-

24. **Areas of consultancy and income generated** :

Organization for Marine Conservation and Research (OMCAR) – Dr. Masilamani Selvam

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

S.NO.	PROJECT TITLE	SPONSORING AGENCY	AMOUNT (in Rs.)	DURATION
1	Novel Cytotoxic Metabolites from Marine Actinobacteria (Dr. Masilamani Selvam)	DST, Govt. of India. (BOYSCAST FELLOWSHIP)	6,96,000	8 months
2	Endophytic fungi from the mangroves of Vellar estuary. (Dr.M. Masilamani Selvam)	INSA Summer Fellow. Indian National Science Academy, New Delhi, Govt. of India	20,940	2 Months
3	Adaptive Acidification Tolerance Response of Salmonella typhimurium under temperature stress (Dr. V.Ramesh kumar)	IAS-INSA-NASI (Summer Research Fellowship)	24,000	2 months

26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)

S.No	Name of the staff	National Committee	Editorial Boards	others
1.	Dr.Valli Nachiyar	Institutional Biosafety Committee	Journal of Environmental and Chemical Engineers Journal of Hazardous Materials Journal of Medicinal Plant Research Carbohydrate Polymer Water, Air and Soil Pollution Journal of Water Process Engineering Journal of Biodegradation and Bioremediation Springer Plus	Life member in Association of Microbiologist of India

2.	Dr.Jayshree Nellore	Institutional Human Ethical Committee	Recent Patents on Nanotechnology Bentham Science Publishers International Journal of Biochemistry Research & Review Croatian Journal of Fisheries Water Science and Engineering	Department of Biotechnology- reviewed two projects Life member in Society of Neurosciences India Member in Stem cell society India
3.	Dr.Swetha Sunkar		Journal of Nanostructure in Chemistry (JNSC) African Journal of Microbiology Research Journal of Nanomaterials & Molecular Nanotechnology Current Biotechnology Indian Journal of Science and Technology	Life member in Association of Microbiologist of India
4.	Dr.Ramesh Kumar		Bioresource Technology International Journal of Pharma and Pharmaceutical Sciences	Member in Krishnamurthy Institute of Algology Member in Seaweed Research and Utilisation Association
5.	Dr.Karthick Raja Namasivayam		African Journal of Microbiology Research Journal of Colloids and Surface-B Indian Journal of Microbiology Hexapoda	Indian Association of Microbiologist Entomology Academy of India American Society for Microbiologist
6.	Dr.Antony Samrot		African Journal of Microbiology Research Recent Patents on Biotechnology World Journal of Microbiology Human and Experimental Toxicology British Microbiology Research British Biotechnology Journal	Indian Association of Biomedical Scientist Indian Association of Applied Microbiologist

7.	Dr. Masilamani Selvam		International Journal of advanced science and engineering Egyptian Journal of aquatic research Journal of Biopesticides Indian Journal of ecology International Journal of Pharma and Biosciences SangMai Journal of Sciences Indian Journal of Science and Technology World journal of Science Scientific Research Publishing	Life Member in Indian Science Congress Association Life member in Madras Naturalist's Society Member in American Society for Microbiology Member in Canadian Society of Microbiologists Member in American Fisheries Society
8.	Dr. J.V. Reji		Current Sciene	Life member in Society for Biological Chemist
9.	Dr. Bavanilatha	Human Ethical Committee(MMM)		
10.	Dr. Prabavathy		Asian Journal of Pharmaceutics	
11.	Dr. R. Thyagarajan			Life member in Indian Association of Applied Microbiologist
12.	Dr. Mr. Prakash			Member in American Society of Microbiologist
13.	Ms. D. Subhashini			Life member in Association of Microbiologist of India

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs)

S.No	Date	Name of the Program	Topic
1	18 - 23 July 2016	Resource person in Workshop, Sathyabama University	Invitro and Insilico Approaches in screening of phytochemicals and its bioactivity studies
2	8 -9 July 2016	National Confernsnce, VIT, Vellore	Microbial Diversity: Exploration And Exploitation
3	18 April, 2016	National conference, AarupadaiVeedu Institute of Technology	Recent Innovations in Biotechnology
4	8 March 2016	International Seminar, Sathyabama University	Challenges in Commercialization of Viral rapid diagnostics and therapeutics
5	18 April, 2016	National conference, AarupadaiVeedu Institute of Technology	Recent Innovations in Biotechnology
6	12th and 13th April 2016	Resource person,	National workshop on Animal cell line techniques, Sathyabama University
7	18 April, 2016	National conference, AarupadaiVeedu Institute of Technology	Recent Innovations in Biotechnology
8	4th and 5th february 2016	National conference, Mohamed Sathak college of arts and science	emerging trends in management of infectious diseases and public health
9	8 -9 July 2016	National Conference, VIT, Vellore	Microbial Diversity: Exploration And Exploitation
10	12TH AND 13THApril 2016	convenor& Resource Person NAEL16	NAEL-16 SathyabamaUnivrsty
11	24 & 25th Feb 2016	Sathyabama University	NASHE 16
12	8 March 2016	International Seminar, Sathyabama University	Challenges in Commercialization of Viral rapid diagnostics and therapeutics

13	8 March 2016	international Semiar, Sathyabama University	Challenges in commercialization of viral rapid diagnostics and therapeutics
14	18-23 July 2016	Workshop, Sathyabam University	workshop on Invitro and insliico approaches in screening of phytochemical and its bioactivites studies
15	8 March 2016	international Semiar, Sathabama University	Challenges in commercialization of viral rapid diagnostics and therapeutics
16	8 March 2016	international Semiar, Sathyabama University	Challenges in commercialization of viral rapid diagnostics and therapeutics
17	18-23 July 2016	Workshop, Sathyabam University	workshop on Invitro and insliico approaches in screening of phytochemical and its bioactivites studies
18	8 March 2016	international Semiar, Sathyabama University	Challenges in commercialization of viral rapid diagnostics and therapeutics
19	18-23 July 2016	Workshop, Sathyabam University	workshop on Invitro and insliico approaches in screening of phytochemical and its bioactivites studies
20	18th – 23rd July 2016	Participant, Workshop, Sathyabama university, Chennai	Invitro and insilico approaches in screening of phytochemicals and its bioactivity
21	12th – 13th April 2016	Presented poster on Cissusquadrangularis, National Conference, SRM University, Chennai	Emerging Trends in Food Processing and Quality Assurance (Foodomics'16)
22	1st – 3rd April 2016	Participant, National Level Technical Symposium, Anna University, Chennai	Biotechcellence16
23	19th March 2016	Presented a poster on Black Mustard Seed Oil Hostile to Athlete's Foot Infection, National Level Technical Meet, Pondicherry Engineering College, Puducherry	Advances in Chemical, Pharmaceutical, Biochemical and Environmental Engineering (TIE LINES 2016)
24	24th – 25th Febrauary 2016	Organizing member, National conference, Sathyabama University.	Applied Science and Engineering for health and environment (NASHE'16)

25	8th march 2016	Participant, National seminar, Sathyabama university	Challenges in commercialization of viral rapid diagnostics and therapeutics
26	4 -6 March 2015	SRM University, Chennai	Indian Genetics Congress
27	4 -6 March 2015	SRM University, Chennai	Indian Genetics Congress
28	16th November 2015	Updates on COPD	CME-updates on COPD
29	6th MARCH 2015	MADHA Engineering College	4th National conference TBST 15
30	2nd November 2015	Participant, Workshop, Springer and Anna university, Chennai	Author workshop
31	24th – 25th July 2015	Training programme, Sathyabama University	Pilot scale biodiesel production and characterization
32	28 March ,2014	Workshop- SSN College	Artificial Neural Networking using MATLAB.
33	Nov 11- Dec 1st 2014	Madras University	Special refresher course on Disaster Management
34	June 1, 2014	ADP Apiary	Bee keeping workshop
35	1 & 2 March 2014	MHRD sponsored Workshop, Marine Science, Annamalai University	Recent zTechniques in Marine Fish Immunology
36	27 Febraury 2014	National Symposium, St. Joseph's College	Basic Trends in Biological Science
37	13 - 14 March 2014	National Conference, Sathyabama University	Emerging Interdisciplinary Trends of Chemical Technology
38	6 - 7 May 2014	International Conference, VIT, Vellore	Science, Engineering and Technology (SET)
39	2 - 3 April 2014	National Conference, Annamalai University	Challenges in Biochemical Engineering and Biotechnology for Sustainable Environment
40	16th August 2014	G.K.Naidu Memorial Hospital Coimbatore	11th IAPA , Coimbatore

41	6th and 7th May 2014	international conference, VIT, Vellore	international conference on Science, engineering and technology
42	21 and 22nd August 2014	Resource person NASHE 14	NASHE 14 sathyabama university
43	13 - 14 March 2014	National Conference, Sathyabama University	Emerging Interdisciplinary Trends of Chemical Technology
44	6 - 7 May 2014	International Conference, VIT, Vellore	Science, Engineering and Technology (SET)
45	2 - 3 April 2014	National Conference, Annamalai University	Challenges in Biochemical Engineering and Biotechnology for Sustainable Environment
46	21-22 August 2014	National Workshop, Sathyabama University	National workshop on Animal cell line Techniques (NACL-14)
47	14, March-2014	National Conference, AMET	National Level Conference on Advances in Marine Bioscience & Technology, Current status, Prospects & Challenges
48	28-29 July 2014	National Seminar, Sathyabama University	National level students seminar on Applied science in health and Environment
49	28-29 July 2014	National Seminar, Sathyabama University	National level students seminar on Applied science in health and Environment
50	28th – 29th July 2014	Organizing member, National Level Student Seminar, Sathyabama University.	Applied Science in health and environment (NASHE'14)
51	3rd April 2014	Presented a paper on Albiziasaman: A green route for the reduction of bulk TiO ₂ , National Conference, Sathyabama University	Challenges in Biochemical Engineering and Biotechnology for sustainable development
52	21 - 22 February, 2013	National workshop -KarpagaVinayaga College of Engg. and Technology, Madhuranthagam	Application of Vermicomposting Practices for sustainable Agricultural Development.

53	15 March, 2013	Resource person in National Seminar -Vel Tech. Engg. College.	Fermentation and Bioprocess Technology in the National Seminar on Recent Trends in Advanced Fermentation Tech.
54	27th Nov- 13th Dec, 2013	Short term training course- Bharathidasan University, Trichy	Plant Genetic Engineering
55	13 December 2013	FDP, Dept. of Management Studies, Sathyabama University	Art of investing in Stock Markets
56	28&29 June 2013	NIT Tiruchirappalli workshop sponsored by TEQIP	Application of Chemical Engineering Principles in Biotechnology
57	30 - 31 January 2013	National Conference, Vel Tech High Tech	Traditional Medicine: The Untrapped Treasure in Modern drug discovery
58	12th November 2013	svcechennai	workshop on mammalian cell culture using WAVE Bioreactor
59	30 - 31 January 2013	National Conference, Vel Tech High Tech	Traditional Medicine: The Untrapped Treasure in Modern drug discovery
60	24 to 27th April 2013	National Seminar cum Workshop Basic cell culture technology in Animal Biotechnology	sathyabama University
61	30 - 31 January 2013	National Conference, Vel Tech High Tech	Traditional Medicine: The Untrapped Treasure in Modern drug discovery
62	10.06.13	FDP, SATHYABAMA UNIVERSITY	FACULTY DEVELOPMENT PROGRAMME ON MOLECULAR TECHNIQUES
63	23 to 25 Jan 2013	Frontier Lifeline Mediville	Recent trends in Nanobiotechnology
64	12th nov 2013	HIV SCIENCE 2014	YRC, CHENNAI
65	21-22- March-2013	National conference, Sathyabamauniveristy	Emerging interdisciplinary trends of chemical Technolgoy

66	April 15-16,2013	International Conference, South Africa	ICCIEMME,
67	March 21-22,2013	National conference, Sathyabamauniveristy	Emerging Interdisciplinary Trends of Chemical Technology
68	21-22- March-2013	National conference, Sathyabamauniveristy	Emerging interdisciplinary trends of chemical Technolgoy
69	4th – 6th July 2013	Editorial member, International conference, Sathyabama University (ISBN - 978-93-510710-1-3)	Impact of Climate Change on Food, Energy and Environment (ICCFEE 2013)
70	10th – 12th June 2013	Participant, FDP, Sathyabama University.	Molecular techniques
71	24th – 25th April 2013	Organizing member, National Seminar cum Workshop, Sathyabama University.	Basic Cell Culture Techniques in Animal Biotechnology
72	6th – 7th February 2013	Presented a paper, National Conference, SRM University, Chennai.	Frontiers in Biotechnology (NCFB – 2013)
73	21 Jan 2012	Symposium-Frontier Mediville, Thiruvallur	Recent trends in Basic Sciences
74	21 July 2012	National seminar-Dr. M.G.R. university	Recent trends in Medical Biotechnology
75	24 August,2012	Training.	MAT Lab Training for Engineers
76	20-22 September, 2012	Workshop -Chennai Dental Research foundation	Research Methodology
77	3-4 November, 2012	Centre for Advanced Study in Botany, University of Madras.	National Seminar on Algal Ecology
78	30 November, 2012	Signing of MOU with Frontier Lifeline Hospital	HRD programmes
79	10-14 December, 2012	training programme Central Institute of BrackishwaterAqulture (CIBA), Chennai	Management of emerging diseases of shrimp with special reference to Pacific white shrimp, Litopenaeusvannamei.

80	28 February, 2013	Resource person AMET University, Chennai	National Science Day celebrations and National level seminar on Prospects of Marine Biotechnology for Industry and Stakeholders.
81	20-24 February 2012	Natioanl level Workshop at Bharathidasan University	Advances in Aquaculture Technology
82	22 - 24 March 2012	National workshop, Kumaraguru College of Technology	Phytochemical Analysis and Antioxidant Screening of Therapeutically Important Medicinal Plants
83	22 - 24 March 2012	National workshop, Kumaraguru College of Technology	Phytochemical Analysis and Antioxidant Screening of Therapeutically Important Medicinal Plants
84	14 - 15 Febraury 2012	National Conference, SRM University	Frontiers in Biotechnology
85	12 - 15 December 2012	Workshop, Anna University	Sequence Analysis and Molecular Simulation
86	21 March 2012	SSN College chennai	symposium on Applications of nanomaterials
87	27 and 28th Feb 2012	Anna University	NANOMEET-2012
88	29th feb 2012	Kerala ORIBIO-12	INCITE (International Centre for Intellectual Training & Empowerment)
89	22nd and 23rd February 2012	International seminar, Justice Basheer Ahmed Sayeed college	Biochemistry for tomorrow's medicine - venividivici 2012
90	27th February 2012	National symposium, St. Joseph's college of arts and science	Biospark 2012
91	2ND MARCH 2012	INTERNATIONAL CONFERENCE NANOTECHNOLOGY EGYPT	ICNBS EGYPT
92	22 - 24 March 2012	National workshop, Kumaraguru College of Technology	Phytochemical Analysis and Antioxidant Screening of Therapeutically Important Medicinal Plants
93	14 - 15 Febraury 2012	National Conference, SRM University	Frontiers in Biotechnology

95	14-15 Feb-2012	National Conference, SRM University	National Conference on Frontiers in Biotechnology
96	14-15 Sep-2012	National Confernces, Alagappa University	National Conferences on Aquatic animal and Health Management
97	14-15 December, 2012,	International Conference , Singapore	ICBBS 2012
98	21 Jan 2012	Frontiers mediville	recent trends in basic sciences -
99	14-15 Feb-2012	National Conference, SRM University	National Conference on Frontiers in Biotechnology
100	11-13 December 2012	International Conference USM, MALAYSIA	International Conference on Environment 2012
101	14-15 Feb-2012	National Conference, SRM University	National Conference on Frontiers in Biotechnology
102	15th December 2012	Participant, National workshop, Sathyabama University	R & D Proposals – Approach and Preparation (RDPAP – 2012)
103	14th – 15th September 2012	Presented a paper on Immunoprophylactic Prospects: A need of the hour for fish culture industry towards parasites, National Conference, Annamalai University, Parangipettai.	Aquatic animal health and management (NCAAHM - 2012)
104	27th – 28th July 2012	Presented a paper on Green synthesis of silver nanoparticles from <i>Fragaria vesca</i> , International Conference, Annamalai University, Parangipettai.	Science and Technology for clean and green environment (SCTGE-2012)
105	14th – 15th February 2012	Participant, National Conference, SRM University, Chennai	Frontiers in Biotechnology
94	15-17 December, 2011	International Conference, Sathyabama University	International Conference on Geen Technology and Environmental Conservations
106	February 4th, 2011	Symposium- Leibnizhaus, Holzmarkt 5, 30159 Hannover, Germany	11th Leibniz Symposium on Chemical Biology. “Thinking natural products globally-from deserts to deep sea”

107	18-19th july, 2011	Second International Seminar- Madras Veterinary College, Chennai	Frontiers of Stem cell and Biotechnology in Human & Veterinary Medicine
108	7 August 2011	Workshop – Adyar Cancer Institute	Advanced molecular techniques and its applications
109	8-9 September 2011	Workshop -Sathyabama university	Thesis writing
110	4 - 5 August 2011	FDP, Dept. of Management Studies, Sathyabama University	Art of writing Thesis and Research papers
111	19th to 23rd Dec 2011	central Marine Fisheries Research Institute Kerala	conference on 9th Indian fisheries forum
112	28th and 29th december 2011	National Seminar, HH Rajah College	recent advances in life sciences
113	7th march 2011	National symposium, St.Joseph's college of arts and science	Biospark 2011
114	18-19 JULY 2011	International conference, Madras Veterinary College	Frontiers of Stem cell and Biotechnology in Human & Veterinary Sciences
115	11th Feb-2011	National conference, Bharathidasan Univeristy	National conference on Explorations of the Natural Bioactive compounds from the Marine resources
116	22-24, Sep-2011	National Conferences, Sathyabama Univeristy	National conference on Algae and Algal Products
117	17-18, November -2011	International Conference, VIT, Vellore	3rd international Conference on Science, Engineering and Technology,
118	15th -17th December, 2011	(GTEC-2011)	II for International Conference on “ Green Technology & Environmental Conservation ”Sathyabama University
119	11th Feb-2011	National conference, Bharathidasan Univeristy	National conference on Explorations of the Natural Bioactive compounds from the Marine resources
120	22-24, Sep-2011	National Conferences, Sathyabama Univeristy	National conference on Algae and Algal Products

121	17-18, November -2011	International Conference, VIT, Vellore	3rd international Conference on Science, Engineering and Technology,
122	15-17 December, 2011	International Conference, Sathyabama University	International Conference on Geen Technology and Environmental Conservations
123	15th -17th December, 2011	(GTEC-2011)	II for International Conférence on “ Green Technology & Environmental Conservation ”Sathyabama University
124	17-18, November -2011	International Conference, VIT, Vellore	3rd international Conference on Science, Engineering and Technology,
125	22-24, Sep-2011	National Conferences, SathyabamaUniveristy	National conference on Algae and Algal Products
126	15-17 December, 2011	International Conference, Sathyabama University	International Conference on Geen Technology and Environmental Conservations
127	22nd – 24th September 2011	Organizing member, National conference, Sathyabama University with Seaweed Research and Utilization Association, Tuticorin and Krishnamurthy Institute of Algology, Chennai..	Algae and algal products
128	4th – 5th August 2011	Participant, FDP, Sathyabama University.	Art of thesis writing and research papers
129	3rd – 7th January 2011	Participant, 98th Indian National Congress, SRM University, Chennai	Quality education and Excellence in Scientific Research in Indian Universities
130	28th-30th Oct. 2010	Workshop- Anna University	International Workshop on Advances in Nanoscience and Technology
131	21-23- Jan 2010,	Center of advancedstudy in crystallography and bio physics, University of Madras	4th International symposium on recent trends in macromolecular structure and function
132	21-23rd Jan,2010	International symposium CLRI, Chennai	Recent Trends in Macromolecular Structure and Function

133	4th - 5th March, 2010	Vels College of Science, chennai	National Seminar on Fungal Biotechnology
134	5-10 April, 2010	Training- Sathyabama University	Cell, Molecular, Nano-Biotechniques
135	19th -29th April, 2010	AICTE sponsored Staff Development programme - JeppiaarEngg. College	Specialization of Bioreactor Techniques in the trend of Biotechnology
136	27th August 2010.	Lecture-Centre for Bioresources, Sathyabama University,	Patent literacy campaign – Expert Lecture Series on Intellectual Properties rights
137	23rd Sep. 2010	Seminar-Sri Ramachandra University	Biotechnology for safe health and secure environment
138	25.10.10	Recent Trends in Genomics,Proteomics& Drug Discovery workshop	Bioinformatics centre& ARIS Cell, Madras Veterinary College, Chennai-7
139	5 to 10th April 2010	Resource person during the Short-term hands on training in Cell Culture techniques	Centre for Bioresource Research and Development, Sathyabama University
140	25.10.10	Recent Trends in Genomics,Proteomics& Drug Discovery workshop	Bioinformatics centre& ARIS Cell, Madras Veterinary College, Chennai-7
141	25-27 August 2010	National Conferecne, AlagappaUniveristy	2nd National Conference on Bioprospecting of Marine Resources with special Reference to Marine Natural Products and Drug Discovery
142	2-4 September, 2010	International conference, Annamalai University	International conference on Aquatic Microbiology status challenges and opportunities
143	25.10.10	Recent Trends in Genomics,Proteomics& Drug Discovery workshop	Bioinformatics centre& ARIS Cell, Madras Veterinary College, Chennai-7.
144	25-27 August 2010	National Conferecne, AlagappaUniveristy	2nd National Conference on Bioprospecting of Marine Resources with special Reference to Marine Natural Products and Drug Discovery

145	2-4 September, 2010	International conference, Annamalai University	International conference on Aquatic Microbiology status challenges and opportunities
146	24th February, 2009	One day Seminar- Asan Memorial college of Arts & Science,	Frontiers & Perspectives in Biochemical Research
147	27th February, 2009	Seminar-Centre for Environmental Studies, Anna University	Trends in Microbial Research
148	6th to 8th of March 2009	seminar-Government College of Technology, Coimbatore	National seminar on Biotechnology
149	18th to 20th of March 2009	Seminar-St.Xaviers College, Palyamkottai,	National seminar on Biotechnology
150	18th July, 2009	Lecture series-Center for Ocean Research Sathyabama University	Popular series for popularization of Biotechnology
151	July 22nd -24th, 2009	National SeminarBharathiar University, Coimbatore	Frontiers in Biotechnology- NSFB 2009
152	10-11th, August 2009.	Symposium - Sathyabama University	National Technical Symposium Chrysalis-09.
153	20th and 21st August, 2009	Training-Bharathidasan University, Tiruchirappalli-620 024	National level Brainstorming session on Nanogeoscience
154	1st -3rd September, 2009	National Seminar- Jeppiaar Engineering College, Chennai	Advanced Techniques in Molecular Biotechnology
155	17th -19th Sep. 2009	National Workshop- Presidency College and IIT Madras.	Recent Trends in Nanobiotechnology and NanoTechnology
156	9th Oct.2009	Workshop - Annamalai University	Design and Analysis of Experiments (Response surface Methodology)
157	26th Oct. 2009	Seminar-ALM PG Institute of Basic Medical Sciences, University of madras.	New Insights in the Management of Antibiotic Resistance
158	28th -29th October, 2009	National seminar -Madras Christian College, Chennai	Recent advances in Fish Reproduction
159	8-14, December 2009.	Short term training Programme -Anna University,	"Innovations and Improvements in Biotechniques

160	28 - 29 October 2009	National Seminar, Madras Christian College, Chennai	Recent Advances in Fish Reproduction
161	17 - 19 September 2009	National Workshop, Indian Institute Of Technology, Chennai	Recent Trends in Nanobiotechnology and NanoTechnology
162	17th – 19th September 2009	Presidency college and Saif I.I.T Madras, Chennai	3rd National workshop on Recent trends in Nano-Biotechnology & Nanotechnology Instrumentation
163	27 Feb 2009	National Seminar, Anna University	Trends in Microbial Research, Anna University
164	10-11 August 2009	Technical Symposium, Sathyabama university	Chrysalis 09
165	9th October 2009	Workshop, Annamalai University	Workshop on Design and Analysis of Experiments (Response Surface Methodology)
166	9th to 11 2009	participated Sathyabama university	chrysalis
167	27 Feb 2009	National Seminar, Anna University	Trends in Microbial Research, Anna University
168	10-11 August 2009	Technical Symposium, Sathyabama university	Chrysalis 09
169	9th October 2009	Workshop, Annamalai University	Workshop on Design and Analysis of Experiments (Response Surface Methodology)
170	10-11 August 2009	Technical Symposium, Sathyabama university	Chrysalis 09
171	10th – 11th August 2009	Organizing member, National Technical Symposium, Sathyabama University.	Chrysalis'09
172	9-19 May, 2008, 10 days	Workshop- Life Teck Research Centre, Chennai	Molecular Genetics and Molecular Biology
173	11 August, 2008	Seminar-Sathyabama University	Current Trends in Drug Discovery
174	18 - 19 September 2008	National Conference, Karunya University	Medicinal and Aromatic plants for public health

175	3 - 5 September 2008	International Conference, SankaraNethralaya, Chennai	Nano-Medicine & recent advances in ophthalmic research
176	20 August 2008	FDP, KarpagaVinayaga College of Engineering and Technology	Innovative Approaches in Biotechnology
177	11 August 2008	Seminar, Sathyabama University	Current Trends in Drug Discovery
178	7 to 11 Aug 2008	Sathyabama university	BICUSB, Sathyabama university
179	14-16, Feb 2008	National semiar, Sathyabamauniveristy	National seminar cum workshop on nanotechnology and nanobiotechnology
180	20 August 2008	FDP, KarpagaVinayaga College of Engineering and Technology	Innovative Approaches in Biotechnology
181	14TH TO 16TH 2008	participated Sathyabama university	NBT & NT Sathyabama university
182	7 to 11 Aug 2008	participated Sathyabama university	BICUSB, Sathyabama university
183	14-16, Feb 2008	National semiar, Sathyabamauniveristy	National seminar cum workshop on nanotechnology and nanobiotechnology
184	7 to 11 Aug 2008	Poster presentation , National conference	BICUSB, Sathyabama university
185	14-16, Feb 2008	National semiar, Sathyabamauniveristy	National seminar cum workshop on nanotechnology and nanobiotechnology
186	20th August 2008	Participant, FDP, KarpagaVinayaga College of Engineering and Technology, Maduranthagam, Chennai.	Innovative Approaches in Biotechnology
187	7th – 9th August 2008	Organizing member, International conference, Sathyabama University.	Biotechnological Intervention for Conservations and Sustainable Utilization of Bioresources
188	4 - 6 October 2007	International Conference, Indian Institute Of Science, Bangalore	Total Engineering, Analysis & Manufacturing Technologies

189	14th – 16th February 2008	Organizing member, National Seminar cum Workshop, Sathyabama University.	Nanotechnology and Nanobiotechnology
190	5th – 7th December 2007	Participant, International Conference, Sathyabama University	Applied Bioengineering (ICAB '07)
191	10th – 11th September 2006	Participant, National Level Technical Extravaganza, VIT, Vellore	Replicon'06

Faculty Development programmes conducted:

S.No.	Topic of Seminar / FDP	Date of Seminar	Name of Resource Person	Duration of Seminar
1.	Two day National Seminar cum workshop - Department of Biotechnology in Basic Cell culture techniques in Animal Biotechnology	24, 25 th April 2013	Dr. M.Parthiban	2 days
2.	Three day Faculty Development Programme was conducted by the Department of Bioengineering on Molecular Techniques.	10-12 th june, 2013	Dr. Bavanilatha & Dr. Reji	3 days
3.	Workshop on invitro and insilico approaches in screening of phytochemicals and bioactivity studies	18 – 23 July 2016	Dr. Antony V. Samrot	5 days

28. Student projects

- percentage of students who have done in-house projects including inter- departmental projects **92 %**
- percentage of students doing projects in collaboration with other universities/industry / institute **8 %**

29. Awards / recognitions received at the national and international level by

		National Level	International Level
Staff		36	1
Students	(Extra / Cocurricular)	116	1
	Sports	4	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.NO	NAME OF SEMINARS/ CONFERENCES/WORKSHOPS ORGANISED	DATE	FUNDING AGENCY	OUTSTANDING PARTICIPANTS
1.	National Seminar cum Workshop on Nanotechnology and Nano Biotechnology (NTNBT)	14 th -16 th February, 2008.	-	Prof. Jaffer Ali, Professor, Pondicherry University.
2.	National conference on Biotechnological Intervention for Conservation and Sustainable Utilization of Bioresources (BICSUB)	7-9 th August, 2008.	CSIR and DST	Dr. V. Mohan, IFGTB, Coimbatore Dr. Ashok Pandey, IIIST, Triruvanandapuram Dr. Gnanamani, CLRI Dr. Kathiresan, Annamalai University Dr. P.N. Krishnan, TBGRI
3.	CHRYSLIS	10-11 august, 2009		Dr. Rajaguru, Research Director, Anna University, Trichy

4.	National conference on Algal and Algal products (NCAAP)	22-24 th September, 2011	MoEF	<p>Prof. Krishnamoorthy, KIA Dr. V. subramaniam, KIA Dr. V.V. Subramaniam, KIA Dr.S.P.Adhikari, PG Dept. of Biotechnology. Utkal University. Bhubaneshwar. Dr. M.Baluswami, Madras Christian college, Tambaram, Chennai. Dr.G.Subramanian, National Facility for Marine Cyanobacteria (Retd.), Bharathidasan University, Trichy. Prof. V.N. Raja Rao, Former Professor, CAS in Botany, University of Madras, Chennai. Dr. S.K. Subramaniam, Thyagaraja college, Madurai. Dr. Ruma Pal, Department of Botany, University of Calcutta, Kolkata. Dr. Mrs. Shailabala Padhi, Dept. of Botany, Berhampur University, Berhampur. Dr. V.T. Sridharan, National College, Trichy. Dr. Geetanjali V. Deshmukhe, Central Institute of Fisheries Education, Mumbai.</p>
5.	Green Technology for Environmental Conservation (GTEC) – 2011	15-17 th December, 2011		<p>Dr. Karthikeyan Member Secretary, Tamil Nadu Pollution Control Board.</p>
6.	National Seminar cum workshop was conducted by the Department of Biotechnology in Basic Cell culture techniques in Animal Biotechnology	24,25 th April, 2013		<p>Dr.Parthiban, Professor & Head, Dept of Animal Biotechnology, Madras Veterinary College, Chennai-7</p>
7.	Faculty Development Programme was conducted by the Department of Bioengineering on Molecular Techniques	10 – 12 June, 2013		<p>Dr. Ghoshi, Malaysia</p>

8.	International Conference On Impact of Climate Change On Food, Energy And Environment (ICCFEE 2013)	4th-6th July, 2013		Dr. Y.E.A Raj, Deputy Director, Regional Meteorological Centre.
9	National Level student Seminar on Applied Science in Health & Environment (NASHE 14)	28 th to 29 th July 2014		Dr.Ramadass, , Professor & Head, Dept of Animal Biotechnology, Madras Veterinary College, Chennai-7 Dr.Thirunalasundari, Professor & Head, Dept of Industrial Biotechnology
10	Work shop on Phytochemical screening and Bioactivity studies of Plant Extracts	3 rd to 5 th Sep 2014		Dr.N.Raman ,Director. PAS, University of Madras
11	National Workshop on Animal Cell line Techniques	21 st and 22 nd August 2014		Dr.Ramadass,Retd, , Professor & Head, Dept of Animal Biotechnology, Madras Veterinary College, Chennai-7
12	Phytochemical screening and bioactivity studies of medicinal plants	5-7 October 2015		Dr. Valli Nachiyar, Professor and Head, Department of Biotechnology, Sathyabama University' Dr. Jayshree Nellore, Professor and Research Head, Department of Biotechnology, Sathyabama University'
13	National workshop on animal cell line techniques	12-13 April 2016		Dr. A. Thangavelu, Professor, Dept of Veterinary Microbiology, Madras Veterinary college, Chennai 7

14	Workshop on invitro and insilico approaches in screening of phytochemicals and bioactivity studies	18 – 23 July 2016		Dr. Periyannayagam, Madurai kamarajar University, Madurai
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31. **Code of ethics for research followed by the departments.**

- Follow ethical standards of practice in research with respect to the application of microbial, plant and animal samples for deriving novel products and metabolites.
- Ensuring safety guidelines to protect research participants, investigators and academicians.
- Focusing on deriving useful products from the waste materials in an economically feasible and eco-friendly manner.
- Emphasizing the novelty in all areas of research thereby facilitating publications with high citation range.

32. **a) Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications received	Selected	
		Male	Female
B.Tech. 2010-14	1158	21	34
B.Tech. 2011-15	1823	22	69
B.Tech. 2012-16	1741	29	66
B.Tech. 2013-17	1794	24	90
B.Tech. 2014-18	1678	22	87
B.Tech. 2015-19	1227	17	48
B.Tech. 2016-20	1376	33	68
M.Tech. 2012-14	115	4	15
M.Tech. 2013-15	52	3	7
M.Tech. 2014-16	05	03	02

Name of the Programme (refer to question no. 4)	Applications received	Selected	
		Male	Female
M.Tech. 2015-19	03	--	03
M.Tech. 2016-20	05	02	03
M.Sc. 2012-14	14	1	13
M.Sc. 2013-15	3	1	2
M. Phil. 2013-14	3	1	2
M. Phil. 2014-15	05	1	4

B) University Results - April 2016 Examinations

Name of the Programme (refer to question no. 4)	Pass Percentage	
	Male	Female
B.Tech. 2012-16	100	100
B.Tech. 2013-17	71	96
B.Tech. 2014-18	50	83
B.Tech. 2015-19	53	79
M.Tech. 2014-16	100	100
M.Tech. 2015-17	---	100

33. Diversity of students

Name of the programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students From universities outside the State	% of students from other countries
M.Tech. 2006-08	20	64	16	Nil
M.Tech. 2007-09	2	74	24	Nil
M.Tech. 2008-10	12	65	23	Nil
M.Tech. 2009-11	11	74	15	Nil
M.Tech. 2010-12	12	42	42	4
M.Tech. 2011-13	17	66	17	Nil
M.Tech. 2012-14	32	47	21	Nil
M.Tech. 2013-15	20	80	Nil	Nil
M.Tech. 2014-16	20	60	20	Nil
M.Tech. 2015-17	Nil	100	Nil	Nil
M.Tech. 2018-18	33.33	66.67	---	---
M.Sc. 2006-08	Not Applicable	31	69	Nil
M.Sc. 2007-09	Not Applicable	37	64	Nil
M.Sc. 2008-10	Not Applicable	37	83	Nil
M.Sc. 2009-11	Not Applicable	59	41	Nil
M.Sc. 2010-12	Not Applicable	47	53	Nil
M.Sc. 2011-13	Not Applicable	14	86	Nil
M.Sc. 2012-14	7	64	29	Nil
M.Sc. 2013-15	Nil	100	Nil	Nil
M. Phil. 2007-08	33	67	Nil	Nil
M. Phil. 2008-09	Nil	100	Nil	Nil
M. Phil. 2009-10	36	64	Nil	Nil
M. Phil. 2010-11	Nil	100	Nil	Nil
M. Phil. 2011-12	33	67	Nil	Nil

M. Phil. 2012-13	20	60	20	Nil
M. Phil. 2013-14	67	33	Nil	Nil
M. Phil. 2014-15	40	60	Nil	Nil

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.:

S.NO	NAME OF THE EXAMINATION	NO. OF STUDENTS CLEARED									
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	GRE	13	25	29	11	25	13	4	6	3	1
2	TOEFL	2	14	12	5	6	7	3	2	3	1
3	GATE	15	8	11	4	7	2	4	-	2	-
4	JRF/CSIR	-	2	-	1	-	-	-	-	-	-
5	IELTS	5	3	20	6	3	6	-	3	3	1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	20.4%
PG to M.Phil.	NA
PG to Ph.D.	<10%
Ph.D. to Post-Doctoral	<1%

Employed	
• Campus selection	B.Tech 33%, M.Tech 25%.
• Other than campus recruitment	6%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	16 % (4)
from other universities within the State	64 % (16)
from universities from other States	20 % (5)
from universities outside the country	NIL

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Number of Ph.D awarded: 7

- Dr. Antony Samrot
- Dr. Bavanilatha
- Dr. Justin Koilpillai
- Dr. Swarnalatha
- Dr. Ramesh Kumar
- Dr. Reji
- Dr. Swetha Sunkar

- Dr. Usha nandhini
- Dr. Sudha
- Dr. Thygarajan
- Dr. P. Prakash

38. **Present details of departmental infrastructural facilities with regard to**

a) Library :

NO OF BOOKS		COST
NO. OF TEXT BOOKS	NO. OF REFERENCE BOOKS	
9063	79	34,65,713

- b) Internet facilities for staff and students : YES
- c) Total number of class rooms : 9
- d) Class rooms with ICT facility : 1
- e) Students' laboratories : 6

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment (Rs.)
1.	Molecular biology	5800	19,84,250
2.	Plant cell and tissue culture	1800	3,15,200
3.	Bioprocess laboratory	5800	17,03,015

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment (Rs.)
4.	Animal tissue culture laboratory	1800	21,35,038
5.	Biochemistry	3800	2,73,653
6.	Microbiology	3800	3,42,780

f) Research laboratories : 8 (6+2)

39. **List of doctoral, post-doctoral students and Research Associates**

a) from the host institution/university :10 (4 Years)

b) from other institutions/universities : 16 (4 Years)

40. **Number of post graduate students getting financial assistance from the university.** : NIL

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- The richness in marine biodiversity can be applied for improving the net aquatic productivity, for increasing sea food availability, for bioremediation, to obtain clinical and therapeutic drugs that could be used to combat various diseases.
- Commercial applications such as production of bioactive metabolites, dietary supplements (nutraceuticals) and biopolymers.
- Characterization and protection of marine organisms such as coral reefs, microalgae, sponges that will improve the breeding of fishes.

42. **Does the department obtain feedback from**

a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Every semester the faculty members are directed to give their suggestions for the revision of the papers handled by them which will be put in the Board of studies. The syllabi are revised accordingly taking this into account along with suggestion given by Board of studies members which will be comprised of an eminent researcher from research laboratory and an academician. Academic audit system followed in our University helps greatly in rectifying the issues and in course improvement.

b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Students' feedbacks for each subject are collected by the HOD who will be giving suggestions/directions to the faculty members based on these feedbacks which are kept confidential.

c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

The students are allowed to discuss with their alumni during the Alumni meet who enlighten the students about the opportunities and personality development.

43. **List the distinguished alumni of the department -**

S.No	Name	Students Batch	Position
1.	Ms. Sujatha	2007-2009	Scientist, DST
2.	Dr. Sheik Mohammed	2007-2010	Research Associate of Bionano Electronics Research Center, Japan
3.	Ms. Chandra Priya	2002-2006	Reserve Bank of India
4.	Dr. Maya Pious Panjikiran	2002-2006	Scientist, Genoptix Medical laboratories, California.
5.	Ms. Cynthia Pauline	2010-2014	Biocon.

S.No	Name	Students Batch	Position
6.	Dr. Vegneshwaran Vasudevan Ramakrishnan	2005-2009	Marine Biotechnologist at Fisheries and Marine Institute of Memorial University of Newfoundland, Canada
7.	Ms. Uthara Suresh R	2010-2014	R & D Executive at Unique Biotech

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lectures	18
Seminars	
Workshops	7

45. List the teaching methods adopted by the faculty for different programmes.

- Seminars, Assignments
- Exposure to research activities from second year onwards
- Classes are conducted with LCD projector
- Concepts are made easy with online tutorials

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Through periodic monitoring and from the regular internal auditing

47. Highlight the participation of students and faculty in extension activities.

Our students are actively participating in various clubs of Student Development Cell like (Literary Club, Rotaract Club, Eco Club, Maths Club etc) and in Blood Donation camps conducted by Youth Red Cross Society and in NSS.

48. Give details of “beyond syllabus scholarly activities” of the department.

Students are taken for Industrial Visits where they will be exposed to the research work going on in that industry and interact with the researchers there. Students are encouraged to engage themselves in the Student Development Cell of our University. The students are encouraged to present papers (Research as well as Review papers) in conferences and seminars. They are also trained to coordinate the national and international conferences conducted in the Department as well as in the University.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

- i) Accredited by NAAC
- ii) declared as category “ A” University by task force appointed by MHRD, Government of India
- iii) certified by ISO 9001: 2008 by DNV, Netherlands.

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Research work in various fields of biotechnology and publication in peer reviewed journals are the major contributions of the department in generating new knowledge.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

- Staff members with research potential (Five research projects are/were funded by various funding agencies (DBT, DSR and ICMR)
- Enthusiastic students

- Enhanced motivation towards research and publications
- Initiation towards interdisciplinary research activities
- Published appreciable number of research papers

Weaknesses

- Participation in international collaborative research has to be acquired.

Opportunities

- Collaborate with other Universities and Research Institutes which will accelerate the research.

52. Future plans of the department.

- To provide students with a knowledge and understanding of current theories, concepts and lab practices
- To coordinate and participate in training activities for students and visiting scientists in Biotechnology
- To mediate the formation of and participate in cross disciplinary research program campus-wide
- To encourage staff members and students to involve in current research areas and publish the results of the same in peer reviewed journals
- To encourage staff members to get funding for their research work from funding agencies

1. **Name of the Department** : DEPARTMENT OF BIOINFORMATICS
2. **Year of establishment** : 2001
3. **Is the Department part of a School/Faculty of the university?**
Faculty of the university - Faculty of Bio & Chemical Engineering.
4. **Name of the programmes offered (UG, PG, M.Phil, Ph.D., Integrated Masters, Integrated Ph.D., D.Sc. , D.Litt. , etc.):**
UG Course :
 - B.Tech in Bioinformatics**PG Course :**
 - M.Tech in Bioinformatics
 - M.Tech by Research**Ph.D.**
5. **Inter Disciplinary programmes and departments involved** : Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Nil
7. **Details of programmes discontinued, if any, with reasons** : Nil

8. Examination systems; Annual/ Semester/ Trimester/Choice based credit system

Semester Based System - Absolute credit based system.

9. Participation of the department in the courses offered by other departments:

We extend our participation in handling the courses of other departments too. Subjects we handle are Environmental Science, Computer programming languages, Physics and bioinformatics based subjects. These subjects are from department of Biotechnology, the faculty of Computer Science Engineering, faculty of Mechanical engineering and faculty of Electronics engineering.

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	01	01
Associate professors	01	01
Assistant Professors	02	02
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance:

Name	Qualification	Designation	Specialization	Number of years of experience		No of Phd/ M Tech by Research students guiding for the last 4 years
				Teaching	Industry	
Dr.C.Jaynthy	M.Sc., M.Phil,Ph.D	Professor & Head	Biophysics	14.5	01	02
Dr.K.Balasankar	B. Tech, M.Tech, P.hD	Associate Professor	Bioinformatics	12.5	-	-
Mr.Arun Kumar	M.Sc., M.Phil., M.Tech, (Ph.D)	Assistant Professor	Bioinformatics	09.5	-	-
Mrs.Jemmy Christy	M.Sc., M.Tech	Assistant Professor	Bioinformatics	10.5	-	-

12. List of senior visiting fellows, adjunct faculty, and emeritus professors:

- Dr.M.N. Ponnuswamy, Emeritus, CAS in Crystallography & Biophysics
- Dr Dr.Velmurugan, Madras University, Chennai
- Dr.Micheal Gromiha, IIT Madras, Chennai
- Dr.Sekar.K, IISc, Bangalore

13. Percentage of classes taken by temporary faculty-programme –wise information : Nil

14. Programme- wise Student Teacher ratio:

By considering the subjects handled by other departments, the staff students ratio is 1:15.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:**

	Sanctioned	Filled
Technical Staff	02	02

16. **Research thrust areas as recognized by major funding agencies:**

- Development of Value added, dedicated and derived databases such as SNP, EST, clinical information, etc. on various genomes
- Analysis of system biology through Bioinformatics tools
- Identification of key pathways that support the survival of the infectious agents involved in their pathogenesis
- Bioinformatics Applications specific to Agriculture, Medical, Environmental Veterinary Science, Aquaculture, Marine biology, Medicinal and Aromatics Plants, etc.
- Understanding protein structure prediction leading to drug discovery & development.
- Pharmacogenomics and Bioinformatics
- Effort for virtual experimental screening of chemical libraries with important targets from major infectious diseases

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise : NIL**

18. **Inter-institutional collaborative projects and associated grants received**

International collaboration: Dr. Jaynthy.C, Ligfam Project, International Collaboration with Georgetown University, Amount : 2000 USD,

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:** NIL
20. **Research facility / centre with**
- Center for Nanoscience and Nanotechnology in association with IGCAR, Kalpakkam-National Recognition
 - Center for Drug discovery and development
21. **Special research laboratories sponsored by / created by industry or corporate bodies:** NIL
22. **Publications:**
- Number of papers published in peer reviewed journals (national / international): 198
 - Monographs : Nil
 - Chapters in Books : Nil
 - Edited Books : Nil
 - Books with ISBN with details of publishers: Nil
 - Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 67; WOS - 06
 - Citation Index – range / average : 1 – 152 / 17.6
 - SNIP: 0.04 – 1.9
 - SJR: 0.1 – 2.158
 - Impact Factor – range / average : 0.038 – 6.751 / 0.9875
 - h-index: 5
23. **Details of patents and income generated** : NIL

24. **Areas of consultancy and income generated** : NIL
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : NIL
26. **Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)** : NIL
27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Faculty Attended:

S.No	Date	Name of the Program	Topic
1.	10 th -13 th December 2008	Workshop	Bioinformatics
2.	10 th ,11 th November 2009	National workshop	Simulation Studies on Biological System
3.	4-5,Dec,2009	Faculty Development Program	Modern Teaching Methods and Research in Engineering and Tech.
4.	17 th -19 th December 2010	International Conference	Trendz in Information Sciences and Computing
5.	4,5,Aug,2011	Faculty Development Program	Art of Writing Papers and Thesis
6.	21 st December 2011	Workshop	Recent advances on Proteomics
7.	25 ,on 23 rd -25 th January 2012	International Symposium	Recent Trends in Macromolecular Structure and Function

8.	27 th & 28 th February 2012	National Seminar & Workshop	Bioinformatics and 3D Structure Determination of Biomolecules
9.	12,13,Sep,2012	Faculty Development Program	Research techniques using SPSS
10.	18 th to 23 rd July 2016.	Workshop	Workshop On In Vitro & In Silico Approaches In Screening of Plant Phytochemicals And Its Bioactivity Studies.
11.	25 th July 2016.	Workshop	Workshop on Applications of Thin Layer Chromatography
12.	21 st to 24 th July, 2015	Workshop	"Introduction to Molecular Phylogenetics and Virus Evolution"

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects

S No	Batch	Percentage of in house projects
B Tech		
1	B Tech 2006-2010	8.4%
2	B Tech 2007-2011	7%
3	B Tech 2008-2012	12%
4	B Tech 2009-2013	73%
5	B Tech 2012-2016	91%
6	B Tech 2013-2017	98%
M Tech		
1	M.Tech - 2008-2010	36 %
2	M.Tech - 2009-2011	13%

3	M.Tech - 2010-2012	50%
4	M.Tech - 2011-2013	100%
5	M.Tech - 2012-2014	87 %

- Percentage of students doing projects in collaboration with other universities/industry / institute

S No	Batch	Percentage of projects in collaboration
B Tech		
1	B Tech 2006-2010	91.60%
2	B Tech 2007-2011	92.90%
3	B Tech 2008-2012	87.50%
4	B Tech 2009-2013	73.33%
5	B Tech 2012-2016	8%
6	B Tech 2013-2017	2%
M Tech		
1	M.Tech - 2008-2010	63.19 %
2	M.Tech - 2009-2011	86.84 %
3	M.Tech - 2010-2012	50.00 %
4	M.Tech - 2011-2013	0.00 %
5	M.Tech - 2012-2014	23.00%

29. Awards / recognitions received at the national and international level :

		National Level	International Level
Staff		2	-
Students	(Extra / Cocurricular)	14	1
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any :** Nil

31. **Code of ethics for research followed by the departments:**

- In order to carry out research work which involves ethical clearance in the department approaches the ethical committee duly constituted by the University.
- According to the guidelines of the committee experiments would be planned
- ICMR Guide lines and other appropriate guidelines would be followed

32. **A) Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications received	Selected	
		Male	Female
B.Tech-Bioinformatics (2012-2016)	1103	18	26
B.Tech-Bioinformatics (2013-2017)	1526	13	49
B.Tech-Bioinformatics (2014-2018)	1258	13	37
B.Tech-Bioinformatics (2015-2019)	625	8	26
B.Tech-Bioinformatics (2016-2020)	548	9	32

M.Tech. Bioinformatics (2013-2015)	4	1	3
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B) University Results - Nov 2013 Examinations:

Name of the Programme (refer to question no. 4)	Pass Percentage	
	Male	Female
B.Tech-Bioinformatics (2012-2016)	94	100
B.Tech-Bioinformatics (2013-2017)	100	100
B.Tech-Bioinformatics (2014-2018)	62	100
B.Tech Bioinformatics (2015-2019)	75	60

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students From universities outside the State	% of students from other countries
B.Tech	-	18	82	-
M. Tech	50 %	42 %	8 %	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise :

S.No	Particulars	Strength
1.	GRE	17
2.	TOFEL	8

35. **Student progression**

Student progression	Percentage against enrolled
UG to PG	30%
PG to M.Phil.	-
PG to Ph.D.	Less than 5%
Ph.D. to Post-Doctoral	-
Employed <ul style="list-style-type: none"> ○ Campus selection ○ Other than campus recruitment 	77
Entrepreneurs	01%

36. **Diversity of staff**

Percentage of faculty who are graduates	
Of the same university	50

From other universities within the State	50
From universities from other States	-
From universities outside the country	-

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:**

- M.Phil. – 2
- Ph.D. – 2

38. **Present details of departmental infrastructural facilities with regard to**

a) Library:

No. Of Books		Cost
No. Of text books	No. Of reference books	
6009	20	Rs.2,00,000

b) Internet facilities for staff and students: 139 Systems with 15 mbps

c) Total number of class rooms: 03

d) Class rooms with ICT facility: 1

e) Department laboratories

S.No	Name of the Laboratory	Area in Square	Cost of Equipments
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		Feet	
1	Bio-computing lab	4700	Rs.23,50,949.20
2	Molecular modeling lab	1300	Rs.26,91.702.00
5	Commercial Software		Rs.26,00,000

f) Research laboratories: 01

39. **List of doctoral, post-doctoral students and Research Associates :**

a) from the host institution/university : Nil

b) from other institutions/universities : 1

40. **Number of post graduate students getting financial assistance from the university** : Nil

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Not Applicable

42. **Does the department obtain feedback from**

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes- Feedback received from the faculties on the curriculum is effectively utilized in improving the curriculum. Inputs from the faculty are used for the revision of syllabus.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes- department obtain feedback from Students on a regular basis. Every semester feedback is obtained from the students by the department and the findings are informed to the faculty individually. The feedback is taken into account for improvement of the teaching learning process and choosing the elective subjects.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

YES- Alumni and Industrial feedback are potentially important as it gives what really the industry is in need of. Accordingly it enables us to design the curriculum to meet the demands of the industry in the current scenario. Taking it into consideration representation of alumni and members from Industries are members of the Board of Studies during curriculum revision design of new courses.

43. List the distinguished alumni of the department (maximum 10) :

- Krishna Sudeep Morampudi, Sr.Bioinformatics Associate at DxTertiary Diagnostics/ Web Designer and Information Architect at United States.
- Sakya Mohapatra, Scientist, Formulation Sciences at Merck & Co Inc, Philadelphia, US.
- Sukirthi Teja, Senior Process Associate at Tata Consultancy, Services, Greater New York City Area, Pharmaceuticals.
- Santhosh Kumar Gattam, Software developer at Razorthink, United States
- Hannah Perpetua , Sr. Associate at AMGEN, Biotechnology, Greater Los Angeles Area.

44 Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lectures	8
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Seminars	
Workshops	4

45. **List the teaching methods adopted by the faculty for different programmes.**

- Power Point method through digital slides,
- Animation to explain the process in detail,
- Teaching with hands on experience for simulation and molecular modeling,
- Also include lectures, group discussions, seminars and tutorials,
- Workshops conducted on emerging areas,
- Students are invited to give seminar on current applications of the techniques they have learned,
- Students are taken to Industries and taught about in house processing.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The objectives are constantly met based on the result analysis observed in the continuous assessment. Results are monitored and analyzed from both class assessment and semester end examinations. The results also influence the placement statistics. The discipline of the student and staff is highly encouraged and admired. Students and staff are continuous in research activities. Department encourages students to participate in research and presenting papers in symposiums, conferences etc. Staff counsel students to work both in curricular and co-curricular activities. The balance is tried to maintain in Knowledge transfer and Wisdom to apply it in real times issues. Making a student experienced in handling live jobs. Making students to work in teams and involving to work in teams rather than as an individual.

47. **Highlight the participation of students and faculty in extension activities.**

STAFF PARTICIPATION:

- Jaynthy.C presented her work at an International Conference on Applications of Natural Products and Opportunities Ahead held at BS Abdur Rahman University on 2-3 August 2016.
- Jemmy Christy presented her research work on Study of genetic variation (nsSNP) in the human interferon-alpha related to various diseases in National conference on Applied Science and Engineering for Health and Environment during 24th & 25th Feb 2016.
- H.Jemmy Christy, N.Premjanu, Dr.M.Xavier Suresh presented their research work in HIV SCIENCE 2014-International conference during 30th Jan-1st Feb 2014.
- H.Jemmy Christy, Dr.M.Xavier Suresh, K. Balasankar presented their research work in International conference on macromolecular structure and function conducted by Madras University,during 22nd Jan-24th Jan 2014.

STUDENTS PARTICIPATION:

- Ragavi Meera and Jayanth take part in various extension activities by enrolling them into programmes like NSS, Red Cross, NCC, etc.
- Saikat Paul, Abhinav Srivastava of IV year Bioinformatics have awarded with higher grades in Pearson English proficiency –Business English test.
- Saikat Paul IV year Bioinformatics Guinness world record certificate for world's largest Human Flag formation in December 2014.
- Participated in blood donation camp every year.
- Prayathanna III year Bioinformatics presented her research work Next generation Genomics in NGBT conference organized by CCMB, DURING 1-3rd October 2015.
- Rhema Mary James of 2014-18 batch has undergone Industrial Training, Kochi Institute, at Kochi in June 2016.
- Homachandrika.T,G.Baby Sri,Priyadharshini.L,Pastam Khyathi Nikhileswari, Prayathnaa.R,Tumiki Mounika,Rahul Kumar.P,Mounika.K,Naga
- Lalitha Vali of 2014-18 batch has attended Conference On Next Generation Sequencing at ILLUMINA &GRF NGPT Organization from October

1-3,2015

- V.SWETHA of 2015-19 batch has participated in Open water river swimming-14KM at Ahritola youth swimming club held at national level in 2015
- Students are encouraged to take part in various extension activities by enrolling them into programmes like NSS, Red cross, NCC, etc. Participated in blood donation camp every year.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Encouraging Paper and Poster Presentation of students in various National level and International level conferences.
- Harish chander (Research scholar), Prashant Saxena(2013-15), Sonia Gandhi(2012-14) and Maripuri Devi Priyanka (2013-17) and presented their research work in HIV SCIENCE 2014-International conference during 30th Jan-1st Feb 2014.
- Preethi.B, Sonia Gandhi, Anna Kim of M.Tech-2012-14 batch and Prashant Saxena(2013-15) presented their research work in International conference on macromolecules conducted by Madras University ,during 22nd Jan-24th Jan 2014.
- Prashant Saxena(2013-15),Kumar Suraj, Kuldeep Kumar, Saikat Paul(2013-17) Presented their research work in National conference on Immunoinformatics conducted by Nirmala College during Nov 2013.
- Arranging invited talks and guest lectures of eminent people from Research organizations and industry.
- Conducting industrial visits in order to gain and update about the industrial scenario.
- Active participation in Technovation (project summit) conducted by Sathyabama University.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

- Declared as Category “A” by the task force appointed by MHRD, Government of India.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The department is in constant strive to generate knowledge updating with the current trends in research. Department contributed for the target for the chronic and most common viral and bacterial infectious diseases. Working to develop novel databases in the field of bioinformatics that will help the researchers in the relative discipline.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

The department has staffs with diverse specializations to impart knowledge in Computer science, Mathematics, Biological sciences, Physics, etc. Talented students, from Second year are made to involve in research. The talented students are taken separately and the research problems are defined and made to contribute in research. These students are made to participate in conferences by means of posters and oral presentations. As part of the realization of the MOU between, Georgetown University and our University, selected students are made to work. Improve with publications in journal with good impact factor and having collaboration with universities and institutions to promote research and development thereby having publications.

52. **Future plans of the department.**

Increasing the placement opportunities as well as to motivate the students to take up research as their career. Improving the consultancy activity in the future, thereby extending services to the society at large. Applying for Funded Projects from Govt. Agencies and aiming at becoming the centre of excellence in the near future.

1. **Name of the Department** : DEPARTMENT OF BIOMEDICAL ENGINEERING
2. **Year of establishment** : 2002
3. **Is the Department part of a School/Faculty of the university?**
Yes, Faculty of the University - FACULTY OF BIO & CHEMICAL ENGINEERING
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
UG COURSE : BACHELOR OF TECHNOLOGY IN BIOMEDICAL ENGINEERING (B.Tech.)
PG COURSE : MASTER OF TECHNOLOGY IN MEDICAL INSTRUMENTATION (M.Tech.)
RESEARCH : MASTER OF TECHNOLOGY (BY RESEARCH)
DOCTOR OF PHILOSOPHY (Ph.D.,)
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : NIL
7. **Details of programmes discontinued, if any, with reasons** : NIL
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system:**
SEMESTER BASED SYSTEM – ABSOLUTE CREDIT BASED SYSTEM
9. **Participation of the department in the courses offered by other departments** : NA

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	2	2
Associate professors	2	2
Assistant Professors	5	5

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sl.No.	Name	Qualification	Designation	Specialization	Years of experience		No of PhD/ MPhil students guiding for the last 4 years (completed also to be mentioned)
					Teaching	Industry	
1.	Dr. ANIMA NANDA	Ph.D.,	Professor	Microbial Nanotechnology	18yrs		12
2.	Dr. D. ALEX ANAND	Ph. D.,	Professor	Medical Microbiology	15 yrs		4
3.	Dr. S. KRISHNA KUMAR	Ph.D.,	Asso. Professor	Industrial Microbiology	9yrs 7months	2.5 yrs	
4.	Dr. T. SUDHAKAR	Ph.D.,	Asso. Professor	Applied Microbiology	14yrs		
5.	Dr. J. PREM KUMAR	Ph.D.,	Asst. Professor	Neuro Anatomy	8 yrs 3 months		

6.	Ms. J. BETHANNEY JANNEY	M.E., (Ph.D.,)	Asst. Professor	Applied Electronics	8 yrs		
7.	Ms .R. J. HEMALATHA	M. Tech., (Ph.D.,)	Asst. Professor	Biomedical Instrumentation	8 yrs		
8.	Mr. G. UMASHANKAR	M. Tech., (Ph.D.,)	Asst. Professor	Biomedical Instrumentation	8 yrs		
9.	Ms. SINDU DIVAKARAN	M.E., (Ph.D)	Asst. Professor	Applied Electronics	4yrs		

12. **List of senior visiting fellows, adjunct faculty, emeritus professors :**

1. Dr. V. Rajendran, Group Head, Instrumentation, NIOT, Chennai
2. Dr. S. Seeni, Scientist G, Tropical Botanical Garden & Research Institute, Thiruvananthapuram
3. Dr. Anant B Patel, Scientist, Centre for Cell and Molecular Biology, Hyderabad
4. Dr. D. Velmurugan, Dean of Research, University of Madras, Chennai
5. Dr. T. Sundararaj, Director, JASMN Laboratory & Research Foundation, Chennai

13. **Percentage of classes taken by temporary faculty-programme –wise information : NIL**

14. **Programme- wise Teacher Student ratio :** By considering the subjects handled by other departments, the staff student ratio 1:15

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual :**

	Sanctioned	Filled
Technical staff	2	2

16. **Research thrust areas as recognized by major funding agencies** : NANOMATERIALS IN HEALTH SCIENCE

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

SI. No.	Name of Principal Investigator	Co-investigator	Title	Funding Agency	Period of Project From – To	Amt. Sanctioned	Present Status of Project
1.	Dr. Anima Nanda	Dr. Mukesh Doble, Prof. & Head, IIT (M)	In vitro study on the Bio-toxicity of Nano-Silver as anti-bacterial material”	DBT, New Delhi	Dec 2010 to Dec 2014	51.58 Lakhs	Completed
2.	Dr. Anima Nanda	--	Nanomaterials in health science	DST (FIST), New Delhi	Mar 2013 to Dec 2018	80 Lakhs	Running
3	Dr. T.M SRIDHAR	-	Development of Zirconia coating on Alumina and high density graphite crucibles by electroplating for application in pyrochemical reprocessing .Sathyabama/IGCAR/SP RE SERCH/ 2010 dt 19.01.11	IGCAR	2010 - 2011	Rs.4,72,000/-	Completed

18. **Inter-institutional collaborative projects and associated grants received**

a) National collaboration b) International collaboration

National Collaboration of Sathyabama University along with IIT Madras

SI. No.	Name of Principal Investigator	Co-investigator	Title	Funding Agency	Period of Project From – To	Amt. Sanctioned	Present Status of Project
1.	Dr. Anima Nanda Prof. & Head Sathyabama University	Dr. Mukesh Doble, Prof. & Head, IIT (M)	“In vitro study on the Bio-toxicity of Nano-Silver as anti-bacterial material”	DBT, New Delhi	Dec 2010 to Dec 2014	51. 58 Lakhs	Completed

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

S.NO.	PROJECT TITLE	SPONSORING AGENCY	AMOUNT	DURATION
1.	“In vitro study on the Bio-toxicity of Nano-Silver as anti-bacterial material”	DBT, New Delhi	Rs.51,58,000/-	3 Years
2.	Fund for Infra Structure Development (FIST)	DST(FIST), New Delhi	Rs. 80,00,000/-	5 Years

20. **Research facility / centre with :**

- Centre for Ocean Research (in association with NIOT) - National recognition
- Centre for Nanoscience & Nanotechnology (in association with IGCAR) - National recognition
- Village Resource Centre (in association with ISRO) - National recognition
- Centre for Earth & Atmospheric Sciences
- Centre for Drug Discovery and Development

21. **Special research laboratories sponsored by / created by industry or corporate bodies :**

S.No	* Name of the Equipment	Agency Sponsored / Industry
1	Millipore Integra 3	DBT
2	Ultrasonicator	DBT
3	Orbital Shaking Incubator	DBT
4	Atomic Force Microscopy	DST-FIST
5	CO ₂ Incubator	DST-FIST
6	UV-visible spectroscopy	DST-FIST
7	FT-IR	DST-FIST
8	Bio-safety cabinet	DST-FIST
9	Clean room	DST-FIST

22. Publications:

- Number of papers published in peer reviewed journals (national / international): 286
- Monographs : NIL
- Chapters in Books : 8
- Edited Books : 1
- Books with ISBN with details of publishers : 1
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : SCOPUS – 146; WOS - 15
- Citation Index – range / average : 1 – 201 / 11.74

- SNIP : 0.04 – 2.463
- SJR : 0.106 – 2.48
- Impact Factor – range / average : 0.02 – 6.930 / 2.6434
- h-index : 8

23. **Details of patents and income generated** :

S.No.	Title of the patent	Patent number	Year	Remarks
1.	Patent filed on “Heuristic height adjustable track mechanism for a stair climbing wheelchair”	No.1654/CHE/2012	2013	Published

24. **Areas of consultancy and income generated** : NIL

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : Nationally

26. **Faculty serving in** a) National committees b) International committees c) Editorial Boards d) any other (please specify):

- Editorial Boards: Dr. Anima Nanda- Nanotechnology Applications for Improvements in Energy Efficiency and Environmental Management
(IGI Global- publishing company Pennsylvania, United States)
- Dr. Alex Anand - Board of Studies in Microbiology, University of Madras, Chennai, Tamilnadu, India

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

S.No	Date	Name of the Program	Topic
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1	14-07-2016 – 15-07-2016	National Workshop	Two day industrial workshop on critical care equipment
2	29-01-2015 – 30-01-2015	National Workshop	Advanced Characterization Techniques
3	01-08-2014 – 02-08--2014	FDP	Radiological Equipments
4	10/06/2013- 12/06/2013	FDP	Molecular Techniques
5	09/12/2012	FDP	SPSS Software
6	08/11/2011 – 28/11/2011	Refresher course	Refresher course in Nanosciences
7	13/09/2011	National workshop and hands on training	Medical Image Processing
8	24/11/2005 – 18/12/2005	Refresher course	Refresher course in Biosciences

28. **Student projects**

- Percentage of students who have done in-house projects including inter- departmental projects : 25%
- Percentage of students doing projects in collaboration with other universities/industry / institute : 25%

29. **Awards / recognitions received at the national and international level by Staff :**

	National Level	International Level
Staff	12	-5

Students	(Extra / Cocurricular)	55	-
	Sports	1	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

NUMBER OF INTERNATIONAL CONFERENCE/SEMINARS ORGANIZED (LAST 5 YEARS)

S.NO.	NAME OF THE DEPARTMENT	NAME OF THE ORGANISATION WITH WHICH IT WAS ASSOCIATED	DATES & DURATION	SEMINAR TITLE
1	BIOMEDICAL ENGINEERING	Sathyabama University, Chennai	04-07-2013 – 06-07- 2013	Impact of Climate Change on Food, Energy and Environment " (ICCFEE-2013
2		Sathyabama University & ISWA	15-12-2011 to 17-12-2011	International Conference on “ Green Technology- GTECH- 2011”
3		Sathyabama University, Chennai,	3-12-2010 to 05-12-2010	International Conference on “Emerging Trends in Robotics & Communication Technologies” INTERACT-2010
4		Sathyabama University, Chennai	03-03-2010	International Seminar on “Medical Genetics” by Dr. MayaThangavelu and Dr. Vaithyalingam G Dev, USA

5		Sathyabama University, NIOT Chennai	06-12-2007 to 08-12-2007	International Conference on "APPLIED BIOENGINEERING" (ICAB) 2007
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NUMBER OF NATIONAL CONFERENCE/SEMINARS ORGANIZED (LAST 5 YEARS)

S. No	Name of the Faculty	Name of the Organization	Dates & Duration	Seminar Title
1	Dr. K. Perinbam	Dept. Of Biomedical Eng., Sathyabama University	04-08- 2008 to 06-08-2008	National Workshop entitled "Recent Trends & Emerging Scenario in Biomedical engineering",
2.		Dept. Of Biomedical Eng., Sathyabama University	08-08-2009 to 09-08-2009	BEST- 2009
3.	Dr. Anima Nanda	Dept. Of Biomedical Eng., Sathyabama University	12-08-2010 to 13-08-2010	"Embedded C and Micro Controller" Programming
4.		Dept. Of Biomedical Eng., Sathyabama University	13-09-2011	Medical Image Processing

31. Code of ethics for research followed by the departments:

All research is carried out only after the approval of the institutional biosafety committee and Human ethics committee of the university. This has to precede approval by national bodies like the ICMR bioethics committee for a conducting research on human subjects / participants. Informed consent from human volunteers in mandatory.

32. Student profile programme-wise:

a. profile

Name of the	Application	Selected
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Programme (refer to question 4)	received	Male	Female
B. Tech			
2016-2020	1705	21	51
2015-2019	1625	27	49
2014-2018	1520	21	49
2013-2017	1856	24	66
2012-2016	1364	14	47
M. Tech			
2015-2017	18	2	5
2014-2016	16	-	2
2013-2015	20	1	3

b. University results – April 2016 examinations

Name of the Programme (refer to question 4)	Pass Percentage	
	Male	Female

B. Tech	2015-2019	29.6	77.6
	2014-2018	30	93.5
	2013-2017	50	63.6
	2012-2016	21	76.5
	2011-2015	13.6	81
M. Tech	2014-2016	100	100
	2013-2015	100	100
	2011-2013	100	100

33. Diversity of students:

Name of the Programme (refer to question no. 4)	Batch	% of students from the Same university	% of students from other Universities within the State	% of students From universities outside the State	% of students From other countries
M.Tech [Medical Inst.]	2013-15	50%	50%	-	-
M.Tech [Medical Inst.]	2014-16	100%	-	-	-
M.Tech [Medical Inst.]	2015-17	100%	-	-	-
M.Tech [Medical Inst.]	2016-18	100%	-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

NUMBER OF STUDENTS PASSED IN NET/SLET Etc.: (LAST 5 YEARS):

S.No	Particulars	Strength
1.	GRE	33
2.	TOEFL	22
3.	NET	--
4.	SET	--
5.	GATE	23
6.	OTHERS	20

35. Student progression

Student progression	Percentage against enrolled
UG to PG	10%
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed	
• Campus selection	76%
• Other than campus recruitment	20%
Entrepreneurs	3 %

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	1

from other universities within the State	8
from universities from other States	1
from universities outside the country	--

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : 34**

38. **Present details of departmental infrastructural facilities with regard to**

NUMBER OF BOOKS / JOURNALS / PERIODICALS IN THE DEPARTMENTAL LIBRARY, IF ANY:

a) Library:

NO. OF BOOKS	NO. OF TEXT BOOKS	NO. OF REFERENCES	COST OF ALL THE BOOKS(Rs)	NO.OF JOURNALS,
8863	8748	120	13,16,611.00	NIL

b) Internet facilities for staff and students : Yes

c) Total number of class rooms : 8

d) Class rooms with ICT facility : 1

e) Department laboratories : 4

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	Life Science Laboratory	4,800	30 Lakhs

2	Biomedical Instrumentation Lab	3,600	1, Lakh
3	BIO TRANSDUCERS & SENSORS LAB	1, 754	1 Lakh
4	Electronic Device Lab	2,254	1 Lakh

39. **List of doctoral, post-doctoral students and Research Associates** :

- a) From the host institution/university: 2
- b) From other institutions/universities: Nil

40. **Number of post graduate students getting financial assistance from the university** : NIL

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology** :

YES, Based on the demand of the subject the rating has been taken from the passed out students along with the current students followed by the comparing and compiling the syllabus with other university to meet the standard and to pass through the Board of Studies meeting.

42. **Does the department obtain feedback from**

a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, through staff self-appraisal and HOD feedback on staff. Feedback is utilized by fulfilling the lacking areas by refresher courses and workshops etc.,

b. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Through classroom feedbacks which are conveyed through the concern staff for them to make necessary improvements in the teaching – learning methodology.

c. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

By conducting alumni meet every year and facilitating the alumni and current students interaction to enlighten them on the current job prospectus.

43. **List the distinguished alumni of the department :**

S.No	Name	Students Batch	Position
1.	Mrs. Sindu Divakaran	2002-2006	Assistant Professor
2	Ms. Sabari Vani.	2006-2010	Assistant Professor
3	Mr. Guru Anand	2007-2011	Research
4	Mr. Prashant.	2005-2009	Biomedical Engineer
5	Ms. A Aarthi	2007-2011	Program Analyst
6	Tintu Elizabeth Varghese.	2008-2012	Program Analyst
7	Ms. Gautami Nair	2008-2012	Higher Studies
8	Ms. Gayathri.	2007-2011	Health Care Programmer
9	Ms. Gautham Babu	2006-2010	Biomedical Analyst

10	Ms. Supraja Srihari	2008-2012	Biomedical Analyst
11	Pauline	2009-2013	Higher Studies
12	Neelima	2008-2012	Program Analyst
13	Nidhi Sharma	2008-2012	Program Analyst
14	Pratuyusha	2008-2012	Program Analyst
15	Biman Hazarika	2008-2012	Biomedical Engineer
16	Vishnu Priya	2008-2012	Research Scholar, US
17	Asher Finny Abraham	2008-2012	Research Scholar, US
18	Rini Cleshiya	2012-2016	Biomedical Engineer, Apollo Hospitals

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lectures	13
Workshops	2
Seminars	2

45. **List the teaching methods adopted by the faculty for different programmes.**

Classroom teaching, Multimedia presentations, Student seminars, group discussions, laboratory experiments and demonstrations, Staff – student interactions, teaching using models/ templates, industrial/ educational visits, guest lectures and workshops.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Periodical assessment tests and campus placement at the end of the course

47. **Highlight the participation of students and faculty in extension activities.**

Sports, eco club, science club, robotics club, fine arts, NCC, NSS, university band.

48. **Give details of “beyond syllabus scholarly activities” of the department.**

The department always encourages students to have a broad vision by organizing guest lecture delivered by eminent Scientists and industrial personalities from IIT-Madras, Cancer Research Institute, Orchid Pharmaceuticals etc. Alongside, the department also offers Doctoral degree which is also a part of the academic curriculum.

49. **State whether the programme / department is accredited/ graded by other agencies? If yes, give details.**

- Accredited by NAAC
- Declared as category “A” by Task Force appointed by MHRD, Government of India
- Certified by ISO 9001:2008 by DNV, Netherlands

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The department has come out with an idea of designing a heuristic staircase climbing wheel chair for the physically challenged people which turned out to be a patented one.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths

- The department has got Research and Development project funded by Department of Biotechnology (DBT) in collaboration with IIT-M.
- The department has also been recognized by **DST-FIST** for the ongoing research

- Good laboratory facility with hands-on training to each individual student with adequate study material.
- Well qualified and experienced teaching faculty

Weaknesses

- Accessing analytical instruments in interdisciplinary departments for student's research activity is limited.

Opportunities

- Opportunity to work independently and access lab facilities for research oriented activities.

Challenges

- Providing students with placements in Medical related field is tricky.
- Recruiting staff specialized in Biomedical Engineering is challenging.
- Students from biological background find it difficult with Mathematical courses requiring special attention towards it.

52. **Future plans of the department** :

- Establishment of well-furnished instrumentation and cell culture laboratory.
- To establish healthy academia – industry collaboration to facilitate learning and research.
- To collaborate with universities abroad.
- To start new diploma courses aimed at 100% employment.

5. SCHOOL OF BUILDING & ENVIRONMENT

1. **Name of the Department** : DEPARTMENT OF CIVIL ENGINEERING
2. **Year of establishment** : 2002
3. **Is the Department part of a School/Faculty of the university?**
- School of Building and Environment
4. **Name of the programmes offered (UG, PG, M. Phil., Ph.D., Integrated Masters, Integrated Ph.D., D. Sc., D.Litt., etc.,)**

UG Course

Bachelor of Engineering in Civil Engineering

Bachelor of Engineering in Civil Engineering – Part Time

PG Course

Master of Engineering in Structural Engineering

Master of Engineering in Structural Engineering – Part Time

Master of Engineering in Remote Sensing & Geo Informatics

Research Programme

Doctor of Philosophy

Masters of Technology (By Research)

5. **Inter Disciplinary programmes and departments involved**

1. MASTER OF ARCHITECTURE (BUILDING MANAGEMENT) / Department of Architecture & Department of Civil Engineering

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

For B E :Training and Certification on Autodesk 2D & 3D Design Technology (Revit Architecture Auto cad) for Civil students in collaboration with KKM soft - Authorized Autodesk Partner.

7. **Details of programmes discontinued, if any, with reasons** : Nil

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester Based Absolute Credit System

9. **Participation of the department in the courses offered by other departments.**

Name of the Subject/Course	Service given to the Department
Structures & Construction I, II, III, IV & V Project Management I & II Resource Management I	Architecture

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	2	2
Associate professors	10	10
Assistant Professors	32	32
Others	NA	NA

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No.	Name of the faculty	Qualification	Designation	Specialization	Experience			No.of Ph.D students guiding for the last 4 years
					Teaching	Industry	Total	
1.	Dr. M. M. Vijayalakshmi	M.E., Ph. D	Professor	Urban Engineering	19 Yrs 8 months	---	19 Yrs 8 months	4
2.	Dr. V. Sampath Kumar	M.E. Ph.D.	Professor	Urban Engineering	12 Yrs 2 Months	14 Yrs 7 Months	26 Yrs 9 months	2
3.	Dr. K. Parameswari	M.E., Ph.D.	Associate Professor	Irrigation Water Management	9 Yrs 2 Months	4 Yrs 4 Months	13 Yrs 6 Months	6
4.	Dr. R. Padmapriya	M.E., Ph. D.	Associate Professor	Structural Engineering	13 Yrs 1 months	---	13 Yrs 1 months	3
5.	Dr. S. Packialakshmi	M.E., Ph.D.	Associate Professor	Irrigation Water Management	9 Yrs 4 Months	3 Yrs 8 Months	13 Yrs	1
6.	Dr. S. Nandhakumar	M.Sc., Ph. D.	Associate Professor	Geology	5 Yrs 2 Months	7 Yrs 6 Months	12 Yrs 8 Months	-
7.	Mrs. C. S. Danee Joycee	M.Tech.	Associate Professor	Hydrology and Water Resources Engineering	22 Yrs 2 Months	---	22 Yrs 2 Months	-
8.	Mr. A. Annadurai	M.E.	Associate Professor	Structural Engineering	12 Yrs 2 Months	8 Yrs 2 Months	20 yrs 4 Months	-
9.	Mrs. S. Vanitha	M.E.	Associate Professor	Environmental Engineering	16 Yrs	---	16 Yrs	-

10.	Mrs. R. Nirmala	M.E.	Associate Professor	Transportation Engineering	13 Yrs 11 Months	---	13 Yrs 11 Months	-
11.	Ms. Raji P.K.	M.E.	Associate Professor	Environmental Engineering	12 Yrs 10 Months	1 Yr	13 Yrs 10 Months	-
12.	Mrs. P. Vasanthi	M.E.	Associate Professor	Structural Engineering	9 Yrs 1 month	4 Yrs	13 Yrs 1 month	-
13.	Dr. Phani Madhavi T.	M.E., Ph.D.	Assistant Professor	Environmental Engineering	8 Yrs 3 Months	---	8 Yrs 3 Months	-
14.	Ms. T. K. Padmini	M.E.	Assistant Professor	Hydrology and Water Resource Engineering	11 yrs 2 Months	----	11 yrs 2 Months	-
15.	Mr.G.Kumaresan	M.E	Assistant Professor	Structural Engineering	7 Yrs 10 Months	1Yr 4 Months	9 Yrs 2 Months	-
16.	Ms. Ronzhya	M.E.	Assistant Professor	Environmental Engineering	4 Yrs 1 Month	4 Yrs 4 Months	8 Yrs 5 Months	-
17.	Mrs. M.Shanmugapriya	M.E.	Assistant Professor	Computer Methods and Applications in Structural Engineering	8 Yrs 2 months	---	8 Yrs 2 months	-
18.	Mrs. S. Hemamalini	M.E.	Assistant Professor	Structural Engineering	8 Yrs 1 months	---	8 Yrs 1 months	-
19.	Mrs. M. Praba	M.E.	Assistant Professor	Transportation Engineering	6 Yrs 2 Months	1 Yrs 10 Months	8 Yrs	-
20.	Mrs. Benita M.Hexton	M.E.	Assistant Professor	Structural Engineering	8 Yrs	---	8 Yrs	-
21.	Ms. Kavisri M.	M.E.	Assistant Professor	Hydrology and Water Resources Engineering	5 yrs 11 Months	1 Yr 1 Months	7 Yrs	-

22.	V.R.Raji	M.E	Assistant Professor	Hydrology and Water Resources Engineering	6 Yr 6 Months	-	6 Yr 6 Months	-
23.	Ms. Priyadharsini B.	M.E.	Assistant Professor	Hydrology and Water Resources Engineering	5 yrs 2 Months	1 Yr 1 Month	6 Yrs 3 Months	-
24.	Ms. Sumi Rajan	M.E.	Assistant Professor	Structural Engineering	5 Yrs 1 Month	1 Yr	6 Yrs 1 Month	-
25.	M.Kalaivani	M.E	Assistant Professor	Structural Engineering	2 Yrs 1 Months	3 Yrs 8 Months	5 Yrs 9 Months	-
26.	Mrs. Abida Justus	M.E.	Assistant Professor	Structural Engineering	5 Yrs 1 month	---	5 Yrs 1 month	-
27.	Mr.Naresh Kumar Y	M.E	Assistant Professor	Structural Engineering	4 Yrs 2 Months	---	4 Yrs 2 Months	-
28.	Mr.Sudheesh C.	M.Tech	Assistant Professor	Environmental Engineering	4 Yrs 1 Months	---	4 Yr 1 Months	-
29.	Mr.S.Sasikumar	M.E	Assistant Professor	Construction Engineering & Management	4 Yrs 1 Months	---	4 Yrs 1 Months	-
30.	Mr. J. Vanjinathan	M.E.	Assistant Professor	Construction Technology	3 Yrs	1 Yr	4 Yrs	-
31.	Mr.R.K.Sarayu	M.E	Assistant Professor	Hydrology and Water Resources Engineering	2 Yrs 1 Months	10 Months	3 Years 11 Months	-
32.	Ms. Abarna S.	M.E	Assistant Professor	Structural Engineering	3 Yrs 6 Months	---	3 Yrs 6 Months	-
33.	Mrs.C. Minachi	M.E	Assistant Professor	Transportation Engineering	3 Yr 2 Months	---	3 Yr 2 Months	-

34.	B.Jegatheeswaran	M.Tech	Assistant Professor	Structural Engineering	2 Yrs 1 Month	1 Yrs	3 Yrs 1 month	-
35.	Bose Christy Arun	M.Tech	Assistant Professor	Structural Engineering	2 Yrs 1 Month	1 Yr	3 Yr 1 Month	-
36.	Ms.P. Eshanthini	M.E	Assistant Professor	Irrigation Water Management	2 Yrs 1 Months	---	2 Yrs 1 Months	-
37.	Mrs.Christina Mary V	M.E	Assistant Professor	Structural Engineering	2 Yrs 1 Months	---	2 Yrs 1 Months	-
38.	Mr.C. Manoj Kumar	M.E	Assistant Professor	Construction Engineering and Management	2 Yrs 1 Months	---	2 Yrs 1 Months	-
39.	Mr.Geolin C	M.E	Assistant Professor	Structural Engineering	2 Yrs 1 Months	---	2 Yrs 1 Months	-
40.	Ms.Sinduja N	M.E	Assistant Professor	Irrigation Water Management	2 Yrs 1 Months	---	2 Yrs 1 Months	-
41.	Ms.C R .Karthiga	M.E	Assistant Professor	Transportation Engineering	2 Yrs 1 Months	---	2 Yrs 1 Months	-
42.	Mr.Praveen Kumar.T.R	M.E	Assistant Professor	Construction Engineering & Management	2 Yrs 1 Months	---	2 Yrs 1 Months	-
43.	Ms.Kirthika K.	M.E	Assistant Professor	Construction Engineering and Management	2 Yrs 1 Months	---	2 Yrs 1 Months	-
44.	Ms. Alphonsa Antony Mary	M.E.	Assistant Professor	Structural Engineering	1 Month	---	1 Month	-

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors** : Nil

13. **Percentage of classes taken by temporary faculty programme –wise information** : Nil

14. **Programme- wise Student Teacher ratio**

The staff students Ratio of the Department is 1:15 by considering the allied Subjects handled by the members of other departments.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual** – 10

16. **Research thrust areas as recognized by major funding agencies**

Ongoing Research Area:

1. The project titled “Utilization of steel plant waste in manufacture of paver blocks and slag foams” is being sanctioned by Ministry of Steel, Govt. of India (National). The principal investigator is Dr. Padmapriya of civil department. The amount sanctioned for the project is Rs. 73 lakhs and the duration is January 2014 to December 2016.
2. The project titled “Experimental & Numerical simulation of heat transfer process in safety vault with thermal Insulation & reactor vault” is being sanctioned by IGCAR. The co-investigator is M. Shanmugapriya department of Civil engineering. The amount sanctioned for the project is Rs. 25 lakhs and the duration is January 2014 to June 2016.

Research thrust areas identified:

1. Water Quality Monitoring and mapping
2. Assessment of Heavy Metal concentrations in water.
3. Thermal comfort in office environment
4. Assessing Stability of Structures

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise –**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Period
1	Dr.R.Padmapriya(Civil) Dr.V.K.BupeshRaja (Automobile) Dr.V.GaneshKumar (Ocean Tech) (Interdisciplinary)	Utilization of steel plant waste in manufacture of paver blocks and slag foams	Ministry of Steel, Govt of India (National) & Jeppiaar steels	2013	Rs.73 lakhs	Jan 2014 to Dec 2016
2	Dr.S. Ramachandran Dr.Karthikeyan Mrs.M.Shanmugapriya (Interdisciplinary)	Experimental & Numerical simulation of heat transfer process in safety vault with thermal Insulation & reactor vault	Indira Gandhi Centre for Atomic Research, Kalpakkam	2014	Rs.25 lakhs	Jan 2014 to Jun 2016
Total					Rs.98 lakhs	

18. **Inter-institutional collaborative projects and associated grants received**

- a. Dr. Parameswari.K received a grant from SACI Waters ((South Asian Consortium for integrated water Resources management) under SAWA fellowship through Irrigation and Water Engineering group (IWE), Wageningen University, The Netherlands for her doctoral research.
- b. Dr. Packialakshmi .S received a grant from SACI Waters ((South Asian Consortium for integrated water Resources management) under SAWA fellowship through Irrigation and Water Engineering group (IWE), Wageningen University, The Netherlands for her doctoral research.

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Period
1	Dr.R.Padmapriya(Civil) Dr.V.K.BupeshRaja (Automobile) Dr.V.GaneshKumar (Ocean Tech) (Interdisciplinary)	Utilization of steel plant waste in manufacture of paver blocks and slag foams	Ministry of Steel, Govt of India (National) & Jeppiaar steels	2013	Rs.73 lakhs	Jan2014 to Dec 2016
2	Dr.S. Ramachandran Dr.Karthikeyan Mrs.M.Shanmugapriya (Interdisciplinary)	Experimental & Numerical simulation of heat transfer process in safety vault with thermal Insulation & reactor vault	Indira Gandhi Centre for Atomic Research, Kalpakkam	2014	Rs.25 lakhs	Jan 2014 to Jun 2016 Completed
Total					Rs.98 lakhs	

20. Research facility / centre with state recognition, national recognition international recognition

Centre for Remote Sensing and Geoinformatics - National Recognition (ISRO)
Center for Earth and Atmospheric sciences - National Recognition (ISRO)
Village Resource Center - National Recognition (ISRO)

Centre for Ocean Research - National Recognition (NIOT)
Centre for Waste Management - National Recognition (NSWAI)
Centre for Climate Change Studies

21. **Special research laboratories sponsored by / created by industry or corporate bodies:** Steel research facility lab funded by Ministry of Steel and Jeppiaar Steels has been established

22. **Publications:**

Total Number of Papers Published in National / International - 188
 Total Number of Papers Published in International Database - WOS – 08; Scopus - 108
 CITATION INDEX : 1 - 15
 SNIP : 0.156 – 3.013

 SJR : 0.105 – 1.953
 IMPACT FACTOR : 0.065 – 2.849
 h-Index : 7
 Monographs : Nil
 Chapter in Books : 3
 Books Edited : Nil
 Books with ISBN with details of publishers: Nil

23. **Details of patents and income generated** : Nil

24. **Areas of consultancy and income generated** :

Consultancies offered (List of organizations)	Type of consultancy service offered	Income generated
Maxon Pvt. Ltd.	Industrial Applications Thermal Storage in Concrete	Rs. 5, 00,000

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

- Dr. S. Packialakshmi, attended International level workshop on Research methodology (Part-I) conducted by Tata Institute of Social sciences, Mumbai, India on April 17-30, 2008 and interacted with the research scholars from Bangladesh and Srilanka.
- Dr. K.Parameswari, attended International level workshop on Research methodology (Part-I) conducted by Tata Institute of Social sciences, Mumbai, India on April 17-30, 2008 and interacted with the research scholars from Bangladesh and Srilanka.
- Dr. S. Packialakshmi during her visit to Nepal in 2009 visited the class rooms and laboratories in Nepal Engineering College and interacted with under graduate students.
- Dr. S. Packialakshmi discussed her research project on Mambakkam mini watershed, with researchers from University of Mauritius, Reduit, Mauritius during September 2010.
- Dr. S. Packialakshmi interacted with faculties from department of civil Engineering, SIWI, Sweden regarding water related issues of Sweden and discussed with paper presenters from other countries on sustainability of urban groundwater market in 2011.
- Mrs. C.S. Danee Joycee attended the 4th International Conference of EACEF2013 Singapore wherein she visited the laboratories at National University of Singapore.
- Mrs. C.S. Danee Joycee attended the International conference iSPACE 2013, Gurgaon, Delhi. wherein she visited the laboratories at ITM University.
- Mrs. M.Shanmugapriya attended the International conference iSPACE 2013, Gurgaon, Delhi. wherein she visited the laboratories at ITM University.

26. **Faculty serving in**

- a) National committees - NIL
 b) International committees - NIL
 c) Editorial Boards -

Dr .K. Parameswari

International Journal of Environment Development and Sustainability

Dr. Vijayalkshmi. M .M.

International Journal of Civil Engineering

International Journal of Agricultural and Environmental Engineering

Mr.Jegathesswaran

International Journal of Geo-Engineering

- d) Any other (please specify) - NIL

27. **Faculty recharging strategies (UGC, ASC, Refresher / Orientation programs, workshops, training programs and similar programs).**a) Programmes organized by the Department

S. No.	Date	Name of the programme	Topic
1	16/10/2012	National Workshop	Health Monitoring of structures
2	26/11/2012	National Seminar	Cold formed steel sections in structural engineering
3	05/12/2014 & 06/12/2014	Training Programme	Computation techniques in Ground water management
4	30/01/2015	National Seminar	Indian Green Building Council Green Building Rating Systems

S. No.	Date	Name of the programme	Topic
5	12/03/2015	National Seminar	Computer applications in structural engineering
6	19/03/2015	Design Workshop	Resuse of waste in making show piece
7	20/03/2015	Design Workshop	Construction of Open Air Theatre using pet bottles
8	16/07/2015	National Seminar	Application of nano technology in engineering
9	03/08/2015	National Seminar	Advancement in Surveying instrument
10	12/08/2015	National Seminar	Seminar on Building Information Modelling
11	17/08/2015	National Seminar	Seminar on Building Information Modelling
12	17/08/2015	Training Programme	Software Applications in Civil engineering
13	13/10/2015	National Seminar	Innovative ideas for transformation of the country
14	03/02/2016	National Seminar	Need of Contract management
15	18/02/2016	National Seminar	Awareness on Testing of Building Materials
16	19/02/2016	National Seminar	Role of Management Softwares in Construction
17	15/03/2016 & 16/03/2016	Training Programme	Real Time Project Exposure
18	22/04/2016	National Seminar	Future Scope of Civil Engineering

b) Programmes attended by the Faculties**NATIONAL SEMINAR**

Sl.No	Date	Name of The Programme	Topic	Name of the organization
1	20.9.2012- 21.9.2012	National Seminar	Modern Equipments for Concrete Construction	IIT, Madras
2	26.11.2012	National Seminar	Cold Formed Steel Sections in Structural Engineering	Sathyabama University
3	23.1.2013	National Seminar	Preparation of Concrete using Waste Material	Adiparasakthi Engineering College
4	31.7.2014	National Seminar	Eco Friendly Methods in Water Treatment	Jeppiaar Engineering College
5	7.2.2015	National Seminar	One Day National Seminar on Modern Techniques in Building Projects	Indian Concrete Institute
6	28.6.2015	National Seminar	Emerging Fast Track Techniques in Building and Infra Structures Projects	Indian Concrete Institute
7	23.3.2015	National Seminar	Water and Sustainable Development	CWR, Anna University, Guindy
8	29.7.2015- 30.7.2015	National Seminar	Challenges and Solutions for Road and Rail Safety	National Design and Research Forum, Institution of Engineers

INTERNATIONAL CONFERENCES

SI.No	Date	Name of The Programme	Topic	Name of the organization
1	10.1.2013- 11.1.2013	International Conference	FIB	L & T Construction, Chennai
2	12.2.2013- 16.2.2013	International Conference	Advances in Building Science Rehabilitation and Restoration of Structures	IIT, Chennai
3	4.3.2013- 5.3.2013	International Conference	i SPACE 2013	ITM University
4	8.3.2013- 9.3.2013	International Conference	Global Challenges and Strategies in Engineering Management and Disaster Management	Noorul Islam University
5	5.6.2013- 6.6.2013	International Conference	Sustainable Innovative Techniques in Civil and Environmental Engineering	Krishi Sanskriti
6	26.6.2013- 28.6.2013	International Conference	Euro Asia Civil Engineering Forum	National University of Singapore
7	13.7.2013- 14.7.2013	International Conference	Future Trends in Structural, Civil and Environmental and Mechanical Engineering	Institute of Research Engineers and Doctors, Bangkok
8	23.1.2014- 24.1.2014	International Conference	Disaster Management	St.Peter's University
9	19.03.2014- 21.03.2014	International Conference	Energy Conservation Methods in Building	St.Peter's College of Engineering and Technology
10	18.4.2014- 19.4.2014	International Conference	Emerging Trends in Science, Engineering and Technology	Jerusalem College of Engineering

11	10.12.2014-13.12.2014	International Conference	Computational Mechanics and Simulation	CSIR- SERC, Chennai
12	15.12.2014-16.12.2014	International Conference	Sustainable and Innovative Construction Technologies	Karunya University
13	7.1.2015-9.1.2015	International Conference	Advances in Civil Engineering Materials and Processes	CIT, Coimbatore
14	5.3.2015-6.3.2015	International Conference	Bituminous Mix Design Using Natural and Artificial Fibers	Muthayammal College of Engineering
15	12.3.2015-13.3.2015	International Conference	Recent Trends in Computing	SRM University
16	10.4.2015-11.4.2015	International Conference	Trends in Technology for Convergence	AVS Engineering College
17	16.4.2015-18.4.2015	International Conference	Sustainable Practices in Civil Engineering	KPR Institute of Engineering and Technology
18	1.5.2015-2.5.2015	International Conference	Technological Convergence for Information, Health, Food and Energy Security	CLRI and CSIR, Chennai
19	5.5.2015-6.5.2015	International Conference	Science, Engineering and Technology	VIT University, Vellore
20	15.07.15-17.07.15	International Conference	Sustainable Technologies in Building and Environment	Sathyabama University
21	14.12.2015 - 16.12.2015	International Conference	Innovations in Structural Engineering	Osmania University, Hyderabad

NATIONAL WORKSHOP

Sl.No	Date	Name of The Programme	Topic	Name of the organization
1	27.9.2012	National Workshop	Modelling and Analysis by using FEM	Sathyabama University
2	16.10.2012	National Workshop	Health Monitoring of Structures	Sathyabama University
3	15.12.2012	National Workshop	R&D Proposals- Approach and preparation	Sathyabama University
4	29.4.2013- 30 .4.2013	National Workshop	Role of Geotechnical Engineering on Infra Structure Developments	NIT, Trichy
5	24.5.2013	National Workshop	Seismic Evaluation of Concrete Structures Using SAP 2000	VIT
6	13.7.2013	National Workshop	Paraphrasing and Preventing Plagiarism	Sathyabama University
7	30.08.2013	National Workshop	Latest Advances on NDT Equipments for Concrete	VIT, Chennai
8	23.9.2013	National Workshop	Construction of Concrete roads and Overlay- Do and Don'ts	IIT, Chennai
9	24.10.2013	National Workshop	Groundwater Laws in Tamilnadu	Dr.Ambedkar Law University
10	14.02.2014- 15 .02.2014	National Workshop	Challenges in Geotechnical Investigation and Foundation Design	NIT
11	14.3.2014	National Workshop	Ground Improvement Techniques for Foundation and Pavements	Coimbatore Institute Technology
12	11.4.2014	National Workshop	Emerging Trends in Achieving Sustainable Concrete	VIT, Chennai
13	01.08.2014	National Workshop	Basics and Beyond Engineering Graphics	Jeppiaar Engineering College
14	19.9.2014	National Workshop	Advances in Forecasting Techniques for Water Resources	VIT
15	15.10.2014	National Workshop	Fire Safety	St.Peter's University

16	15.12.2014-17.12.2014	National Workshop	NDT for Historical Monuments and Heritage Structures	National centre for Safety of Heritage and Structures
17	15.02.2015-16.02.2015	National Workshop	Research Methodology and Statistical Data Analysis	Dr.MGR University
18	7.5.2015-8.5.2015	National Workshop	Recent Advances in Structural Engineering	CSIR and SERC, Chennai
19	16.7.2015	National Workshop	Sodar Technology and its Applications	Sathyabama University
20	18.7.2015	National Workshop	Research Methodology	Sathyabama University
21	27.7.2015	National Workshop	Recent Advance in Geotechnical Engineering	SSN Engineering College
22	5.8.2015	National Workshop	Waste- A Resourceful Neglect(WARN 15)	Sathyabama University
23	18.7.2015	National Workshop	Research Methodology	Sathyabama University
24	25.08.2015	One day Workshop	Recent Advancements in Highway and Traffic Engineering	Jeppiaar Engineering College

NATIONAL CONFERENCE

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
1	3.9.2012-5.9.2012	National Meet	Green Technologies and its Applications- Solar Energy for Buildings	Sathyabama University
2	21.3.2012	National Conference	Recent Development in Civil Engineering (RDCE-2012)	SRM University
3	3.10.2012 – 4.10.2012	National Conference	Modern Trends in Construction Material and Construction Techniques	Easwari Engineering College

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
4	20.12.2012 – 21.12.2012	National Conference	Recent Advances in Civil Engineering	Saintgits College of Engineering, Kerala
5	20.12.2012 – 21.12.2012	National Conference	Recent Advances in Civil Engineering	Saintgits College of Engineering, Kerala
6	14.3.2013 – 14.3.2013	National Conference	Industrial Pollution and Control Technology	Annamalai University
7	2.5.2013 - 3.5.2013	National Conference	Innovative Solutions for Sustainable Construction	B.S.Abdur Rahman University
8	19.7.2013 – 20.7.2013	National Conference	Safety in Infrastructure Sector	Institution of Engineers (India)
9	9.11.2013 – 11.12.2013	National Conference	Problem, Challenges and Management of Groundwater in Agriculture	Tamilnadu Agriculture University
10	21.3.2014	National Conference	Waste Management	Saveetha Engineering College
11	27.3.2014- 28.3.2014	National Conference	Green Technologies Environment Engineering and Ethics 2014	Aarupadai Veedu Institute of Technology
12	28.3.2014	National Conference	Sustainable Development NCSDCE	Hindustan University
13	5.5.2014- 6.5.2014	National Conference	Futuristic Innovations and Emerging Trends in Civil Engineering	B.S.Abdur Rahman University
14	13.3.2015 – 14.3.2015	National Conference	Technologies Innovation for Sustainable Infrastructure	NIT Calicut

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
15	17.3.2015 – 18.3.2015	National Conference	Advance in Construction Material and Structures	St.Peter's University
16	19.3.2015-20.3.2015	National Conference	QUEST for Advancements in Civil Engineering	SRM University
17	19.3.2015-20.3.2015	National Conference	Advance in Civil Engineering	SSN Engineering College
18	7.7.2015	National Conference	Recent Innovations in Science Engineering and Technology -NCRASET	IRAJ Research Forum, Chennai
19	24.02.2016 – 25.02.2016	National Conference	Applied Sciences and Engineering for Health and Environment	Sathyabama University
20	11.03.2016–12.03.2016	National Conference	Forensic Structural Engineering	VIT University

INTERNATIONAL WORKSHOP

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
1.	4.11.2014-5.11.2014	International Workshop	Health Monitoring of Civil Engineering Structures	NIT, Trichy

SHORT TERM COURSES

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
1	19.11.2012-23.11.2012	Short Term Courses	Perspectives of Offshore Engineering	IIT, Madras
2	11.12.2012 – 12.12.2012	Short Term Courses	Managed Aquifer Recharge Methods	Anna University
3	4.2.2013 - 9.2.2013	Short Term Courses	Numerical & Experimental Modelling in Geotechnical Engineering	Indian Institute of Technology Kanpur
4	3.10.2013 – 4.10.2013	Short Term Courses	Reliability Analysis and Design of Substructure	National Institute of Technology, Trichy
5	27.10.2014 – 31.10.2014	Short Term Courses	Paradigm Shift in Green and Sustainable Concrete Structures	Coimbatore Institute of Technology
6	29.12.2014 – 2.1.2015	Short Term Courses	Environment Impact Assessment	National Institute of Technical Teachers Training & Research
7	23.11.2015 – 27.11.2015	Short Term Course	Recent development in Construction Technology	Pondicherry Engineering College
8	28.01.2016 – 03.02.2016	Short Term Course	NSS Orientation Course	National Service Scheme Empanelled Training Institution
9	19.03.2016 – 20.03.2016	Two days training Programme	Open source GIS Tools	Sathyabama University
10	02.05.2016 – 06.05.2016	Short Term Training Course	Environmental Geotechnology Practices for Sustainability	Pondicherry Engineering College

FACULTY DEVELOPMENT PROGRAMME

SI.No	Date	Name of the Programme	Topic	Name of the Organization
1	7.3.2013	Faculty Development Programme	Financial Literacy	Sathyabama University
2	18.3.2013 – 24.3.2013	Faculty Development Programme	Communicative Skills for Classroom Teaching	Sathyabama University
3	13.12.2013	Faculty Development Programme	Art of investing in Stock Market	Sathyabama University
4	27.3.2014- 28.3.2014	Faculty Development Programme	Climate Change Studies: An Organismal Approach	Sathyabama University
5	01.06.2016 – 03.06.2016	Faculty Development Programme	Modern Eco-Friendly Materials in Civil Engineering	Jeppiaar Engineering College
6	22.07.2016 – 23.07.2016	Faculty Development Programme	Solid Waste Management	Hindustan Institute of Technology & Science
7	27.10.2015 – 28.10.2015	Faculty Development Programme	Recent Trends in Structural Engineering	Jeppiaar Engineering College

TRAINING PROGRAMME

Sl.No	Date	Name of the Programme	Topic	Name of the Organization
1	2.12.2013 – 7.12.2013	Training Programme	Recent Advances in the Design and Construction of Sustainable pavement	Pondicherry Engineering College
2	5.5.2014 – 7.5.2014	Training Programme	3D- Groundwater Flow and Contaminant Transport Modelling	National Institute of Technology, Calicut
3	11.5.2015- 15.5.2015	Training Programme	Remote Sensing and Geographic Information System	Sathyabama University

TECHNICAL SEMINAR

Sl. No	Date	Name of the Programme	Topic	Institution
1	28.6.2015	National Seminar	Emerging Fast Track Techniques in Building and Infra Structures Projects	Indian Concrete Institute
2	21.02.2016	Technical Seminar	TECH SEM - 2016	Pondicherry Civil Engineers Association

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects
 - BATCH -2007-2011- 120 STUDENTS-88.2%
 - BATCH -2008-2012- 194 STUDENTS-93.7%
 - BATCH -2009-2013- 200 STUDENTS-94.8%
 - BATCH -2010-2014- 201 STUDENTS-93.55%
 - BATCH -2011-2015- 238 STUDENTS-95.20%
 - BATCH -2012-2016- 295 STUDENTS-88.00%
- Percentage of students doing projects in collaboration with other universities/industry / institute
 - BATCH -2007-2011- 16 STUDENTS- 11.8%
 - BATCH -2008-2012- 13 STUDENTS- 6.2%
 - BATCH -2009-2013- 11 STUDENTS- 5.2%
 - BATCH -2010-2014 - 14 STUDENTS- 6.45%
 - BATCH -2011-2015- 12 STUDENTS-04.80%
 - BATCH -2012-2016- 40 STUDENTS-12.00%

29. Awards / recognitions received at the national and international level by

		National Level	International Level
Staff		1	-
Students	(Extra / Cocurricular)	61	1
	Sports	17	-

30. Seminars/ Conferences/Workshops organized and the source of funding national/international) with details of outstanding participants, if any Organized:

S. No.	Name of the seminars/conferences/workshops organized	Date	Funding agency	Outstanding participant
1	Health Monitoring of Structures (IIMS 2012)	16/10/2012	Sathyabama University, Chennai	Mr.Kumar, Tamilnadu Police Housing Corporation
2	Cold Formed Steel Sections in Structural Engineering	26/11/2012	Sathyabama University, Chennai	Dr.Arul Jeyachandran, Professor, IIT Madras
3	Gravity and Bridge the Gap	04/04/2014 & 05/04/2014	Sathyabama University, Chennai	Ar.Hariesh Sankaran Architect Bean Bee Consultant
4	Computational Techniques in Ground Water Management	05/12/2014 & 06/12/2014	Sathyabama University, Chennai	Dr.Elango, Professor, Anna Univeristy

5	Indian Green Building Council Green Building Rating Systems	30/01/2015	Sathyabama University, Chennai	Mr.Anand Principal Counsellor Indian Green Building Council Hyderabad, India
6	Computer applications in structural engineering	12/03/2015	Sathyabama University, Chennai	Mr.Sekar Babu, Consultant, BSB Creative Engineers, Hyderabad
7	Resuse of waste in making show piece	19/03/2015	Sathyabama University, Chennai	Mr.Umapathy, Assistant Engineer, Highways Department, Guindy
8	Construction of Open Air Theatre using pet bottles	20/03/2015	Sathyabama University, Chennai	Mr. C.Udhaya Kumar, Architect, BM Consultants, Chennai
9	Sustainable Technologies in Building & Environment (ICSTBE 2015)	15/07/2015 - 17/07/2015	Sathyabama University, Chennai	Dr.Sivathanu Pillai Chief Scientist, IGCAR,Kalpakkam,
10	Application of nano technology in engineering	16/07/2015	Sathyabama University, Chennai	Dr.Sivathanu Pillai Chief Scientist, IGCAR,Kalpakkam,
11	Advancement in Surveying instrument	03/08/2015	Sathyabama University, Chennai	Mr.Jai sankar, Manager, Leica & Geomax
12	Seminar on Building Information Modelling	12/8/2015	Sathyabama University, Chennai	S.Rajesh, Head Training Division, KKM soft Pvt Ltd, Chennai

13	Seminar on Building Information Modelling	17/08/15	Sathyabama University, Chennai	S.Rajesh, Head Training Division, KKM soft Pvt Ltd, Chennai
14	Innovative ideas for transformation of the country	13/10/2015	Sathyabama University, Chennai	Ms. Harshika Papre. Soft Skill Infotech, Chennai
15	Need of Contract management	03/02/2016	Sathyabama University, Chennai	Mr.Dhananjayan Afcons Infrastrucure Ltd, Chennai
16	Awareness on Testing of Building Materials	18/02/2016	Sathyabama University, Chennai	Mr.Thirumalai Kolunthu & M.Murali Scientist, National Test house, Taramani
17	Role of Management Softwares in Construction	19/02/2016	Sathyabama University, Chennai	Mr. Saravana kumar Project Manager, Afcons Infrastrucure Ltd., Mumbai
18	Future Scope of Civil Engineering	22/04/2016	Sathyabama University, Chennai	Adarshya Sharadha Alumni. Graduate Student University of Colorado, Bulder

31. **Code of ethics for research followed by the departments.**

- Research publications in reputed SNIP & JSR rating journal with high H – Index
- Presenting research papers in various National and International Conferences
- Research publications are followed in Research gate and Google scholar

32. Student profile programme-wise:

REGULAR PROGRAMME: B.E

BATCH	Applications received	Selected	
		Male	Female
2011-2015	6400	228	28
2012-2016	8375	301	34
2013-2017	10114	340	49
2014 -2018	8788	294	44
2015-2019	4228	146	24
2016-2020	4019	106	13

BATCH	Pass Percentage %	
	Male	Female
2011-2015	80.7	100
2012-2016	61.13	100
2013-2017	28.23	81.63
2014-2018	35.69	77.27
2015-2019	51.85	100

REGULAR PROGRAMME: M.E (STRUCTURAL ENGINEERING)

BATCH	Applications received	Selected	
		Male	Female
2012-2014	405	23	4
2013-2015	840	39	17
2014-2016	615	28	13
2015-2017	523	18	06
2016-2018	476	09	03

BATCH	Pass Percentage %	
	Male	Female
2012-2014	100	100
2013-2015	100	100
2014-2016	100	100
2015-2017	94	100

PART TIME PROGRAMME: B.E

BATCH	Applications received	Selected	
		Male	Female
JUNE 2016	93	46	7
JUNE 2015	100	34	11
JAN 2015	90	38	7
JUNE 2014	154	59	18
JAN 2014	148	50	24
JUNE 2013	148	60	14
JAN 2013	198	80	19
JUNE 2012	200	80	20
JAN 2012	202	85	16
JUNE 2011	98	35	14
JAN 2011	228	101	13
BATCH	Pass Percentage		
	Male	Female	
JUNE 2015	44	82	
JAN 2015	32	43	
JUNE 2014	12	72	
JAN 2014	13.5	75	
JUNE 2013	33.33	57.14	
JAN 2013	16	74	
JUNE 2012	24	65	
JAN 2012	15	44	
JUNE 2011	42.85	64.28	
JAN 2011	21.78	38.46	

PART TIME PROGRAMME: M.E (STRUCTURAL ENGINEERING)

BATCH	Applications received	Selected	
		Male	Female
2012-2015	35	23	12
2013-2016	27	18	8
2014-2017	33	22	11
2015-2018	40	06	04

BATCH	Pass Percentage %	
	Male	Female
2012-2015	74	92
2013-2016	65	91
2014-2017	41	55
2015-2018	50	75

33. **Diversity of Students**

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.E STRUCTURAL ENGG (2012-2014)	11.11	59.26	29.63	-----
M.E STRUCTURAL ENGG (2013-2015)	17.85	80.36	1.78	-----
M.E STRUCTURAL ENGG (2014-2016)	14.63	68.29	17.07	-----

M.E STRUCTURAL ENGG (2015-2017)	08.33	83.33	08.33	---
M.E STRUCTURAL ENGG (2016-2018)	16.67	66.67	16.67	----

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

S.No.	Name of the examination	No of students cleared (year wise)
1.	GATE	2012 – 2016 - 6 2011 – 2015 - 4 2010 - 2014 – 3 2009 – 2013 – 2 2008 - 2012 - 1 2007 – 2011 – 2 2004 – 2008 - 1 2003 – 2007 - 1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	
2007-2011	10
2008-2012	40
2009-2013	23
2010-2014	12
2011 – 2015	20
2012 – 2016	32

Student progression	Percentage against enrolled
PG to M.Phil.	NIL
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	
• Campus selection	
2007-2011	93
2008-2012	97
2009-2013	87
2010-2014	83
2011-2015	90
2012-2016	91
Other than campus recruitment	
2007-2011	05
2008-2012	02
2009-2013	11
2010-2014	14
2011-2015	03
2012-2016	02
Entrepreneurs	
2007-2011	5
2008-2012	8
2009-2013	11
2010-2014	13
2011-2015	10
2012-2016	03

36. **Diversity of staff**

Percentage of faculty who are graduates of the same university	07
from other universities within the State	89
from universities from other States	4
from universities outside the country	Nil

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period.**

- Ph. D - 04

38. **Present details of departmental infrastructural facilities with regard to**

a) Library-

No of books		Cost
No. of text books	No. of reference books	
13439	102	Rs. 52,98,099/-

- b) Internet facilities for staff and students – 10 & 60
- c) Total number of class rooms - 20
- d) Class rooms with ICT facility – 1

e) Students laboratories

S. No.	Name of the Lab	Area (in sq.ft)	Cost of Equipment (in Rs.)
1	Highway Engineering Laboratory	1259	5,47,990
2	Environmental Engineering Laboratory	954	3,17,890
3	Surveying Laboratory	1426	20,87,268
4	Soil Mechanics Laboratory	1259	5,95,000
5	Concrete Technology Laboratory	1756	9,48,755
6	Computed Aided Design & Drafting Laboratory	2425	38,65,851
7	Strength of Materials Laboratory	1259	5,74,150

f) Research laboratories

S. No	Name of the Laboratory	Area (in sq.ft)	Cost of Equipment
1	Structural Engineering lab	1259	Rs.22,00,000/-

39. List of doctoral, post-doctoral students and Research Associates

- a) from the host institution/university :13 (4 Years)
- b) from other institutions/universities : 22 (4 Years)

40. Number of post graduate students getting financial assistance from the university : Nil

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology** : Nil

42. **Does the department obtain feedback from**

a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

- A subject coordinator has been allocated for each subject who will be responsible in revising / updating the syllabus, preparing the lecture and tutorial notes, finalizing the lesson plans, conducting assessments.
- Related to the subjects students are taken to industrial visits to gain practical knowledge / exposure of various modern construction techniques.
- The staff members are encouraged to gain more knowledge through Faculty Development Program in their respective fields.

b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

- The students' feedback on the staff are been collected and reviewed subject wise and staff wise to meet the expectation of the students.
- Based on the students' feedback, seminars, guest lectures are being organized in respective disciplines.
- Special classes during weekends for students who require additional / personal attention apart from class hours are being organized.
- The students are motivated for paper presentation in-campus and off-campus.
- The student development cell also organizes various programs to improve the knowledge skills of the students.

c. alumni and employers on the programmes offered and how does the department utilize the feedback?

- Feed backs about the new technologies are discussed with employers of alumni and necessary revisions/ inputs are discussed during the Board of studies meeting and are implemented in the curriculum.
- Leading Alumni students are invited to the University on a regular basis and they share their field knowledge / experience with regular students.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Students Batch	Position
1.	Mr.Gerald Arokiaraj. M	2002-2006	Managing Director (Tulia infrastructures Pvt Ltd.)
2.	Mr.Prabhu Parthasarathy	2002-2006	Senior Co-pilot(Indigo Airlines)
3.	Mr.Dinesh	2006-2010	CEO(Anu Agam Foundations)
4.	Mr.Koushik	2006-2010	Assistant Engineer (PWD)
5.	Mr.Micheal varun	2006-2010	Managing Director, (BV Builders)
6.	Mr.J.Augustine Abraham	2007-2011	Managing Director, (Space CADD Designers, Chennai)
7.	Ms. Anju Sathyan	2008-2012	Graduate Engineer Trainee (Gammon India Ltd, Tuticorin)
8.	Mr.Rahul Baradwaj	2008-2012	Graduate Engineer Trainee(L&T)
9.	Mr.Pavani Bharadwaj. A	2010-2014	Programmer Analyst (Cognizant Technology)
10.	Mr.Philips Augustine	2011-2015	Assistant Engineer (Bloom Infrastructure Logistics Pvt. Ltd)

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	28
Workshops	5
Seminars	2

45. List the teaching methods adopted by the faculty for different programmes.

- Lectures and PowerPoint Presentation using LCD,
- OHP
- Audio visual aids
- Field and Practical lectures
- Group Discussions
- Seminars
- Remedial Coaching
- Participatory learning

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Feedback from students
- Feedback from Parents of weak students
- Conducting Special Classes
- Up-gradation of staff through FDP, workshops and seminars.

47. Highlight the participation of students and faculty in extension activities.

- Students are involved in practical oriented activities such as workshops, specialized lectures etc., through 'Students Development Cell'.
- Students are also encouraged to do an internship program during semester vacations in reputed organizations.
- Also students do their final year projects in collaboration with reputed industries / organizations
- Students also participate in community activities such as NSS & NCC.

48. **Give details of “beyond syllabus scholarly activities” of the department.**

- Students are motivated to do mini-projects, industrial activity oriented programmes with the help of experts from outside through Design Club, Literary Club and Eco Club of Student Development Cell(SDC) and also the students are encouraged to develop their own business skills and personalities through Entrepreneurship Development Cell(EDC) etc.
- Students are involved in surveying of live projects for Jeppiaar Educational Trust and are also engaged in preparing the CAD drawings of the same.

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- Accredited by NAAC as B
- Declared as A category by the Task force appointed by MHRD
- Certified with ISO:9001:2008 by DNV Netherlands

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- Special civil software classes are being conducted like AutoCAD, Revit architecture, STADD Pro, ANSYS.
- Participating in seminars and guest lectures, for generating new knowledge.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department –**

Strengths of the department:

- Motivating the students through guest lectures and arranging industrial visits.
- Periodic interaction with staff-members, encouraging staff members to publish research papers in refereed journals.
- Faculty members are encouraged to do consultancy projects in structural engineering testing lab.
- Students are also encouraged to do consultancy projects through “Earn while Learn” programme of the University.
- The curriculum offers flexibility in innovation and expertise that meets the growing challenges of human society.

Weakness:

- Publication of research articles in refereed journals
- Funded research projects exclusively for the core areas

Opportunities:

- To motivate students in organizing seminars, workshops etc. to develop their leadership and organizing skills.
- To train students in improving their analytical and soft skills for better placements

Challenges:

- Placement in core companies
- Collaboration with national/international reputed universities to meet the future demand in the profession

52. Future plans of the department.

- To meet the current civil engineering trends of increasingly complex multidisciplinary requirements for civil infrastructure and corresponding engineering services
- Pursuit of excellence in preparing engineers to provide innovative solutions to the world's challenges in sustaining the environment and the infrastructure.
- Provide high quality education in engineering and leadership, life-long learning opportunities, and innovation for the benefit of the society.
- Development and use of new building materials, often as a solution to the resource constraints that we face today.
- To create awareness amongst students on increased emphasis in improving quality of life in our cities.
- To involve the faculty members in innovative teaching including a balanced mix of applied projects, fundamental courses and research activities.
- Thus establishing the department into a center of excellence for fundamentals in teaching and research

1. **Name of the Department** : DEPARTMENT OF ARCHITECTURE
2. **Year of establishment** : 1993
3. **Is the Department part of a School/Faculty of the university?**
School of the university - School of Building & Environment
4. **Name of the programmes offered (UG, PG, M. Phil., Ph.D., Integrated Masters, Integrated Ph.D., D. Sc., D.Litt., etc.,)**
 - UG Course**
Bachelor of Architecture
 - PG Course**
Master of Architecture (Building Management)
Master of Architecture (Sustainable Architecture)
 - Ph. D. Programme**
Doctor of Philosophy
5. **Inter Disciplinary programmes and departments involved**
MASTER OF ARCHITECTURE (BUILDING MANAGEMENT) / Department of Architecture & Department of Civil Engineering

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

- **For B Arch** :Training and Certification on Autodesk 2D & 3D Design Technology (Revit Architecture Auto cad 2012) for II year Architecture students in collaboration with KKM soft - Authorized Autodesk Partner.
- **For M Arch** :Building Information Modeling (**BIM**) Training and Certification on Autodesk 2D & 3D Design Technology (Revit Architecture, Eco-tech analysis, Auto cad 2012, Primavera)for the Post Graduate students in collaboration with KKM soft - Authorized Autodesk Partner.

7. **Details of programmes discontinued, if any, with reasons** : NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester Based Absolute Credit System

9. **Participation of the department in the courses offered by other departments** : NIL

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

	Sanctioned	Filled
Professor	05	06
Associate professors	11	11
Assistant Professors	21	21
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sl.No	Name	Qualification (UG, PG & Doctorate)	Designation	Area of specialization	Teaching/ work experience	No of Ph.d students guiding for the last 4 years
1.	Dr.Suresh Kuppuswamy	B.Arch, MTP, Ph.D	Senior Professor	Urban Planning	47 ½ yrs	-
2.	Ar.Gopalakrishnan	B.Arch,MTP	Senior Professor	Town Planning	43 ½ yrs	-
3.	Dr. A.Lilly Rose	B.Arch, M.Arch, GDCPM, Ph.D	Professor and Dean (Building & Environment)	Urban Climate & Built Environment, Vernacular Architecture, Construction Project Management, Architectural Conservation.	20 yrs 3 months	05
4.	Dr.N.Jothilakshmy	B.Arch, M.T.P; Ph.D	Professor and Head of the Department	Sustainable Urban Design	22½ yrs	01
5.	Dr.G.Shanmugapriya	B.Arch, M.Arch, Ph.D	Professor	Sustainable Planning, Landscape Architecture	20 yrs	-
6.	Ar. S.Ebin Horrison	B. Arch, M.Arch (Ph.D)	Associate Professor	Climate and Built Environment	13 yrs	-
7.	Ar R.Arulmalar	B. Arch, MTP, (Ph.D)	Associate Professor	Affordable Housing	13 yrs	-
8.	Ar. V.Shankar	B. Arch, M.Arch(Building Management)	Associate Professor	Building Services	20 yrs	-

9.	Ar.Deepalakshmi	B.Arch, M.Arch (Building Sciences)	Associate Professor	Architectural Conservation	15 yrs	-
10	Ar.Sukirtha	B.Arch, M.Arch (Building Sciences)	Associate Professor	Construction Management	13 yrs	-
11	Ar Nisha	B.Arch, M.Arch (Housing)	Associate Professor	Architectural Working Drawings	12 yrs	-
12	Ar R. Surya	B.Arch, M.Arch (Building Management)	Associate Professor	Project Management	9 yrs	-
13	Ar.Puinabati DeviR.K.	B.Arch, M. Arch(Building Management)	Associate Professor	Contemporary Architecture	8 yrs	-
14	Ar Sanghavi.V.V	B.Arch, M.Arch (Sustainable Architecture)	Associate Professor	Green Buildings, Sustainable Architecture	8 yrs	-
15	Ar.Kiruthiga lakshmi	B.Arch , M.Arch (Building Management)	Associate Professor	Project Management	11 yrs	-
16	Ar.Divya Chakravarthi	B.Arch,M.Arch(conservation)	Associate Professor	Architectural Conservation	8 yrs	-
17	Ar Catherine	B.Arch	Assistant Professor	Interior Design	8 yrs	-
18	Ar.Anbuchhelvi	B.Arch, M.Arch(Landscape Architecture)	Assistant Professor	Sustainable Landscape designing	5 ½ yrs	-
19	Ar.Seetha visalakshi	B.Arch	Assistant Professor	Building Construction	11yrs	-
20	Ar.Kavitha	AIIA	Assistant Professor	Advanced Building Materials	7 yrs	-
21	Ar.Selvendiran	B.Arch	Assistant Professor	History ofArchitecture	4 yrs	-
22	Ar.Gayathri	B.Arch	Assistant Professor	Building Services	4 yrs	-
23	Ar.Sindhu Meenaatchi	B.Arch	Assistant Professor	Urban Design	7 yrs	-

24	Ar.Sushmitha	B.Arch	Assistant Professor	ArchitecturalDrawing	1 yr	-
25	Ar.Swetha	B.Arch, M.Arch(Sustainable Architecture)	Assistant Professor	Sustainable Architecture	1 yr	-
26	Ar.Anju	B.Arch, M.Arch(Sustainable Architecture)	Assistant Professor	Sustainable Architecture	-	-
27	Ar.Sneha Anjali Lobo	B.Arch	Assistant Professor	Building Construction	1 yr	-
28	Ar.Madhumitha	B.Arch	Assistant Professor	Vernacular Architectre	1 yr	-
29	Ar.Shobana subramanian	B.Arch	Assistant Professor	Basic Desgn	5 yrs	-
30	Ar.Monisha	B.Arch, M.Arch(Housing)	Assistant Professor	AffordableHousing	4 yrs	-
31	Ar. Lakshmi	B.Arch	Assistant Professor	Architectural Conservation	2yrs 6 months	-
32	Ar.Charanya	B.Arch	Assistant Professor	Architectural Working Drawings	5yrs	-
33	Ar.Kaushik	B.Arch, M.Arch(Conservation)	Assistant Professor	Architectural Conservation	2 yrs	-
34	Ar.Priyadharshini	B.Arch	Assistant Professor	Building Construction	4 yrs	-
35	Ar.Karthikeyan Nachiappan	B.Arch,M.Arch(Housing&Urban)	Assistant Professor	Urban Design	3 yrs	-
36	Ar.Sandeep	B.Arch, M.Arch(Environmental Design)	Assistant Professor	Environmental Planning	1yr	-
37	Mr. Amudhan	MFA	Assistant Professor	Sculpture	17 yrs	-

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors**

List of Senior and Visiting Faculty

SI.No	Name	Qualification (UG, PG & Doctorate)	Designation	Teaching/ work experience
1.	Prof.Annamalai	M.E (Structures)	Professor	30 yrs
2.	Ar.Dhanasekar	B.Arch,M.Arch(Urban Design)	Associate Professor	9 yrs
3.	Ar.Nikith Ashok	B.Arch	Assistant Professor	8 yrs
4.	Ar.Kannan Gopalakrishnan	B.Arch	Assistant Professor	7 yrs
5.	Ar.Priya Arun	B.Arch	Assistant Professor	13 yrs

13. **Percentage of classes taken by temporary faculty-programme –wise information**

Visiting Faculty - 4 Hours per week

14. **Programme- wise Student Teacher ratio**

The staff students Ratio of the Department is 1:13 by core faculty, excluding the allied Subjects handled by the members of other departments, visiting and Part time Faculty.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

SI.No	Name	Qualification (UG, PG & Doctorate)	Designation	work experience
1.	Mr.Karthikeyan	B E (Computer Science)	Lab Assistant	16 yrs
2.	Mr.Jegathish	B.E. (Mech)	Lab Assistant	6 yrs
3.	Ms.Padmini	MLS	Librarian	22 yrs
4.	Ms.Subha	Diploma in Civil	Lab Assistant	1 yr

16. **Research thrust areas as recognized by major funding agencies**

- Climate & Built Environment
- Thermal Comfort
- Vernacular Architecture
- Urban Planning
- Energy Materials
- Heritage Conservation
- Affordable Housing

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

Sl.No	Name	Funding Agency	Title	Amount Sanctioned
1.	Dr.Lilly Rose Amirtham	Ministry of Culture	Core site documentation project by Gandhi heritage sites mission	Rs. 1,52,000.00
2.	Ar.Deepalakshmi	INTACH	Mapping of Temples & its precincts-Kanchipuram Town	Rs. 2,25,000.00

18. **Inter-institutional collaborative projects and associated grants received**

- a) National collaboration b) International collaboration
NA

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received**

NA

20. **Research facility / centre with state recognition, national recognition international recognition**

Centre for Remote Sensing and Geoinformatics - National Recognition (ISRO)
 Center for Earth and Atmospheric sciences - National Recognition (ISRO)
 Village Resource Center - National Recognition (ISRO)
 Centre for Climate Change Studies

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

NA

22. **PUBLICATIONS:**

Total Number of Papers Published in National / International : 81
 Total Number of Papers Published in International Database : WOS – 01; Scopus - 9
 CITATION INDEX : 1-9
 SNIP : 0.207 - 1.140
 SJR : 0.173 – 0.723
 IMPACT FACTOR : 0.19- 1.437
 H-Index : 4
 Chapters in Books : 1

23. **Details of patents and income generated :**

Sl. No.	Name of patentee	Title of invention	Department	Application No.	Patent No.	Date of filing	Date of grant
1	R.Swetha	SPAASH Bricks	Architecture	2734/CHE/2014		04/06/2014	Application awaiting examination

24. **Areas of consultancy and income generated**

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned	Duration
1	Ability Foundation	Access Audit for IIT Chennai		1yr
2	Samarpan Foundation	Building OAT in Sathyabama University		3 months
3	Jeppiaar Educational Trust	Campus Infrastructure Development for Jeppiaar Educational Trust	As per COA	5yrs
4	Jeppiaar Educational Trust	<ul style="list-style-type: none"> • Compound Wall • Landscape at the Entrance • Entrance Archway • Security Cabin • Jeppiaar Memorial 		1yr
5	Jeppiaar Housing Ltd	Architectural Consultancy Projects for <ul style="list-style-type: none"> • Apartment Complex at Kalaimagal Nagar • Apartment at Ashok Nagar • Housing project at Sriperumbudur 	As per COA	1yr
6	VACA NGO & CARE NGO	Community Centre & Housing for Banti Community		1 month

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad**

Dr. Lilly Rose Amirtham - Building Simulation Lab, NUS, Singapore
 - Climatological section in IMD, Pune

26. Faculty serving in

a) National committees

▪ **Dr. Lilly Rose Amirtham**

External Thesis review committee member of

- Periyar Maniammai University
- Thiagarajar College of Engineering

COA Expert Committee Member

- For the inspection of Architecture Schools in India by the Council of Architecture, New Delhi

Doctoral Committee member

- Anna University, Chennai
- Hindusthan University, Padur.

▪ **Dr. Jothilakshmy. N**

External Thesis Review committee member

- SPA, Vijayawada

Journal Review member

- IIE Architectural Division Journal Series A publication by Springer

COA Expert Committee Member

- For the inspection of Architecture Schools in India by the Council of Architecture, New Delhi

Doctoral Committee member

- Anna University, Chennai
- Hindusthan University, Chennai

b) International committees

Dr. Lilly Rose Amirtham

Bibliographic committee member, IAUC – International Association for Urban Climate
Conference committee member – ICBAU 2014 - International conference on building architecture and urbanism, Paris
International Conference on Environment, Climate and Atmospheric Sciences, Dubai
Invited Speaker at 'Climate Actions: Pathways towards Sustainability' organized by PDP, Gandhi Nagar, Gujarat.
Advisory/organizing committee member of Asian Advanced Materials Congress, Singapore, 2017.

c) Editorial Boards

Dr. Lilly Rose Amirtham

Scientific committee & Editorial review board - World Academy of Science, Engineering & Technology
Associate editor - International Journal of Climate Change: Impacts and Responses
Herald Journal of Agriculture and Food Science Research
Journal of the Institution of Engineers (India): Series A
International Journal of Climate Change: Impacts and Responses
International Journal of Earth Sciences & Engineering
Journal of Council of Architecture: Heritage and Conservation

Dr. Jothilakshmy. N

Journal of the Institution of Engineers (India): Series A
Journal of Council of Architecture

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

PARTICIPATED

S.No	Date	Name of the Program	Topic
1.	11 th July 2016 – 15 th July 2016	Understanding a Methodology for Identification, Demarcation and Documentation of Heritage Zones	Heritage conservation
2.	29 th June 2015 – 3 rd July 2015	Regional Faculty Induction Programme	Architectural Education
3.	2 nd to 6 th June 2014	ISTE Short term training programme	Energy simulations in buildings
4.	12 th & 13 th September 2014	Conservation Training and Capacity Building-INTACH	Study, Use and Conservation of stone
5.	2 nd to 5 th October 2014	Gandhi Heritage Sites Mission	Technical Workshop
6.	22 nd Jan to 11 th Feb 2014	Winter School for Capacity Building and Training for Geospatial Technology.	Geospatial Technology
7.	2 nd March 2014	Inspection Reforms-Experts Training Programme by The Council of Architecture	Inspection Reforms
8.	21 st to 26 th Oct 2013	Women Scientists on Geomatics: Technology and Applications conducted by CEPT, Ahmedabad –	Geomatics-Technology and applications for women Scientist
9.	22 nd to 23 rd Oct 2013	Indian Green Building training programme	Green Building Rating System
10.	16 th -20 th Dec 2013	Workshop conducted by NIASA	Regional Faculty induction Programme
11.	17 th – 19 th June 2013	Conservation Training and Capacity Building-INTACH	Conservation Training
12.	18 th March to 24 th April 2013	FDP on Communicative Skills for Classroom Teaching	Classroom teaching

S.No	Date	Name of the Program	Topic
13.	17 th to 21 st December 2012	Sustainable Practices	Sustainable architecture
14.	2 nd to 4 th May 2012	Remote Sensing and Geospatial Technologies for Coastal Environment	Remote sensing
15.	21 st to 25 th November 2011	Principles of Neo Urbanism	Neo Urbanism
16.	10 th to 12 th October 2011	GRIHA Training Programme	Training Programme
17.	4 th & 5 th August 2011	Art of Writing Thesis and Research Papers	Research
18.	1 st to 5 th July 2011	Designing Barrier Free Environments	Barrier free environment
19.	28 th to 30 th June 2011	India –USA Global business Planning & Networking Strategy Conference 2011	Business planning
20.	1 st to 7 th July 2011	Designing barrier free environments	Barrier free environment
21.	13 th to 17 th June 2011	Sustainable Habitat : Techniques and Practices	Sustainable habitat
22.	20 th to 22 nd July 2011	Training simulation on energy simulation software	CAADRIA
23.	19 th and 20 th April 2011	Development for Technology Transfer on Climate Change Adaptation and Mitigation	Technology transfer on climate change
24.	20 th December 2010	Lime – A forgotten building material	Conservation
25.	18 th to 24 th December 2010	e- content design & development	Design and Development
26.	6 th to 11 th December 2010	MR2010	Managing research

S.No	Date	Name of the Program	Topic
27.	29th November to 3rd December 2010	Teaching design studio in architecture	Teaching Design
28.	7th to 12th June 2010	Urban and Architectural Conservation	Conservation
29.	6th to 10th September 2010	Climate information and prediction services	Meteorology
30.	14th to 18th June 2010	Teaching technologies & office management	Office management
31.	27th April to 2nd May 2009	Earthquake risk management	Earthquake management
32.	22nd to 23rd August 2009	Futuristic Buildings: Green intelligent and smart buildings	Green buildings
33.	10th to 21st December 2007	Geospatial technology concepts and applications	Remote sensing

28. **Student projects** : NIL

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		2	3
Students	(Extra / Cocurricular)	14	2
	Sports	1	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No.	Name of Seminars/ Conferences/Workshops organized	Date	Funding Agency	Outstanding participants *
1.	11 th July 2016 – 15 th July 2016	Understanding a Methodology for Identification, Demarcation and Documentation of Heritage Zones	Council of Architecture & INTACH	Dr.Navin Piplani, Director, INTACH Heritage Academy, New Delhi. Ar.Sujatha Shankar, Convenor, INTACH Chennai Chapter.
2.	29 th June 2015 – 3 rd July 2015	Regional Faculty Induction Programe	Council of Architecture	Ar Jayashree Deshpande, Director, National Institute of Advanced Studies in Architecture (NIASA)
3.	NIASA Thesis 2011	15 th to 17 th September 2011	Council of Architecture	Ar Jayashree Deshpande, Director, National Institute of Advanced Studies in Architecture (NIASA)
4.	Documentation of historic buildings in Vepery, Purasawakkam, Perambur	June 2011 to November 2011	CMDA	Ar. Sharmilee Assistant Planner, CMDA

31. **Code of ethics for research followed by the Departments**

- Research publications in reputed SNIP & JSR rating journal with high H – Index
- Presenting research papers in various National and International Conferences

32. **Student profile programme-wise:**

a)

Name of the Programme (refer to question no. 4)	Applications received	Selected	
		Male	Female
B. Arch	3210	50	40
M. Arch	124	10	07

Name of the Programme	PASS PERCENTAGE
B. ARCH	
2015-2020	68.61 %
2014-2019	81.23 %
2013-2018	71.58 %
2012-2017	81.25 %
2011-2016	95.20 %
M. ARCH (Building Management)	
2015-2017	100%
2014-2016	100%
M.Arch (Sustainable Architecture)	
2015-2017	100%
2014-2016	100%

34. Diversity of students

Name of the Programme (refer to question no. 4)		% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M ARCH	2013-15	14.5%	71%	14.5%	-
	2014-16	22.2%	66.70%	11.10%	-
	2015-17	9%	91%	-	-
	2016-18	17.6%	72.64%	11.76%	-

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

- a. CEED – 1 student
- b. GATE – 4 students
- c. GRE – 7 students

35. **Student progression**

Student progression	Percentage against enrolled
UG to PG	19% (10 students)
PG to M.Phil.	NA
PG to Ph.D.	6% (1 Student)
Ph.D. to Post-Doctoral	-
Employed <ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	82%
Entrepreneurs	18%

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	10.81 %
from other universities within the State	83.79 %
from universities from other States	5.4%
from universities outside the country	NIL

37. **Number of faculty who were awarded M. Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

- Ph. D - 04
- M .Arch - 16

38. **Present details of departmental infrastructural facilities with regard to**

- a) Library : 4100
 b) Internet facilities for staff and students : 100 terminals with Internet connections
 c) Total number of class rooms : 14
 d) Class rooms with ICT facility : 02
 e) Students' laboratories : 05

S NO	NAME OF LAB	COST OF EQUIPMENT
1.	Computer lab I	14,62,920
2.	Computer lab II	1,17,3790
3.	M.Arch LAB BM	3,88,000
4.	M.Arch LAB SA	1,50,000
5.	Environmental lab	13,64,562
6.	Model making lab	2,60,000
7.	Building Services & surveying Lab	1,89,000

- f) Research laboratories : 01

39. **List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university : 03 (4 Years)
 b) from other institutions/universities : 01 (4 Years)

40. **Number of post graduate students getting financial assistance from the university. : 02**

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

For the M. Arch (Sustainable Architecture) Programme, the following activities are being organized:

- Workshop on Sustainable Construction technologies along with Samarpan Foundation, an NGO, was held in March 2014.

42. **Does the department obtain feedback from**

a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

- Each subject has a Subject coordinator who is responsible for revising and updating the syllabus, preparing the lecture and tutorial notes, finalizing the lesson plans, conducting assessments.
- Practicing Architects are invited on regular basis to evaluate the studio projects as a part of continuous assessment system
- Students are taken to industrial visits and to projects done by Architects where they learn the practical and challenges in the Site along with the Construction Management of the profession.
- The staff members are encouraged to gain more knowledge through Faculty Development Program in their respective fields.

b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

- The views of students on the conduct of the course is monitored and the feedback is then discussed with the concerned faculty by the Head of the Department
- The feedback on the comprehension of certain subjects was recorded and the same were deliberated in the Board of Studies meeting. Subsequently few theory based subjects were revised to studio based subject
- In addition to lecture based classes many Workshops, Seminars and Conferences are being conducted based on the feedback from the students.

c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

Alumni and practicing Architects take our students for Parctical Training during their 4th year where the student has to complete one year of training as mandated by the Council of Architecture. The feedback from them is recorded and is used as an input during the syllabus revision proves in the Board of Studies meeting.

43. List the distinguished alumni of the department (maximum 10)

S.No	Name of the Alumni	Batch	Organization Employed	Designation
1.	Anuradha.k	1994-1999	Grids contracting and Décor LLC, UAE, Dubai.	Managing Director
2.	Judy Vinodhini	1995-2000	L & T, Chennai	Principal Architect
3.	Santosh Raj Expedith	1995-2000	Futureware Ltd	Director
4.	Lakshmi pathy .A	1998-2003	Jones Lang Lasalle Meghraj, Chennai.	Project Director
5.	Balaji.L	1999-2004	Jacobs Engineering Construction Industry, London, UK.	Project Manager
6.	Dr.Antoinette Charles	2001-2006	Oxford brookes University, London.	Associate lecturer
7.	Lavanya Jothivankatachalam	2003-2008	School of Design & Environment National University of Singapore	Doctoral Student
8.	Jack Chandy Francis	2003-2008	ChandyAssociates.	Principal Architect
9.	Shikar Singh	2004-2009	CEPT University, Ahmedabad.	Post Graduate student
10.	Jeyaradha J	2008-2010	School of Architecture & Planning, Anna University Chennai	Assistant Professor
11.	Ganesh Sharadha	2007-2012	Civil Crew Pvt.Ltd.	Managing Director

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lecture	52
Workshops	31
Seminars	18

45. **List the teaching methods adopted by the faculty for different programmes.**

- Arranging Expert Guest lectures
- Debate and discussions
- Conducting quiz
- Vertical integration design studios
- Site visits for Construction Details
- Group presentations
- Conducting Hands on Workshops with various organizations
- Industrial visits to various building and technology related organizations.
- Collaborating with NGO and Community participation

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- Continuous evaluation Scheme through periodical reviews conducted by practicing architects
- Periodical Auditing is being conducted to improve the quality for continual improvement.
- Regular interactions with the students and their parents to update and assess their performance

47. **Highlight the participation of students and faculty in extension activities.**

- INTACH – Documentation of heritage buildings
- CMDA – Listing of heritage buildings
- NASA – National Association for the Students of Architecture
- OWL series – Orientation, Workshop and Lecture Series
- Transparent Chennai – An NGO activity
- Samarpan Foundation Chennai-NGO
- IIA NATCON – A National Convention for the Architects and Students
- Design Club- Students from Architecture and Civil Engineering Departments
- Ability Foundation
- VACA programme
- CARE Foundation

48. **Give details of “beyond syllabus scholarly activities” of the department.**

OWL Series (Orientation Workshop and Lecture Series)

Series No	Lecture / Workshop	Event Name	Dates	Invited Guest(s)
1.	Lecture	Design Conceptualization	15th October 2012	Ar. Mahesh Radhakrishnan, Madras Office for Architects and Designers (MOAD), Chennai
2.	Workshop	Architectural Photography	2nd ,3rd & 4th November 2012	Mr.Shashikant, Shashikant School of Photography, Chennai
3.	Lecture	Critical Thinking in Architecture	8th February 2013	Ar.Meghal Arya, CEPT University, Ahmedabad
4.	Workshop	Movement	8th & 9th February 2013	Ar.Meghal Arya, CEPT University, Ahmedabad
5.	Lecture	Graphic Thinking	11th March 2013	Ar.Raghuram, Studio RDA, Chennai

Series No	Lecture / Workshop	Event Name	Dates	Invited Guest(s)
6.	Workshop	Sketching	1st & 2nd March 2013	Ar. Karthik
7.	Lecture	Structures and Aesthetics	15th April 2013	Er.Venkatesh, Pyramid IAS Academy, Karaikudi
8.	Workshop	Basic Structural Engineering for Architects	15th & 16th April 2013	Er.Venkatesh, Pyramid IAS Academy, Karaikudi
9.	Lecture	How to see things?	4th July 2013	Ar. Hariesh K. Sankaran., Director, Beanbee consultants
10.	Workshop	Look-A Chupi	4th, 5th & 6th July 2013	Ar. Hariesh K. Sankaran., Ar. Vinodhini Mohan., Beanbee consultants
11.	Workshop	Model Making	3rd & 4th April 2014	Mr. Rajesh
12.	Workshop	Perspective Techniques	28th & 29th March 2014	Ar. Karthik
13.	Workshop	Squares and Public Spaces	November 2014	Ar. Meghul Arya
14.	Workshop	Confluence	21 st August 2015	Ar. Dean D'Cruz
15.	Workshop	Madras Day Celebration	21 st August 2015	Ar. Sujatha Shankar
16.	Workshop	Clay modeling Workshop	14th August 2015	Mrs. Malini Kalyanam
17.	Workshop	Photography Workshop	17th August 2015	Ar. Maniyarasan
18.	Workshop	Zaha Hadid Works Seminar	20th April 2016	Ar. Deepti Zachariah
19.	Workshop	Athangudi Tiles Workshop	8th April 2016	Mr. Natrajan

STUDENT ACTIVITY SERIES

S. No	Event Name	Dates	Invited Guest(s)
1.	Community Centre & Housing for Banti Community VACA NGO & CARE NGO	28th July 2016	Ar.Biju Kuriakose, Ar.Sara
2.	Introduction Session by TRANSPARENT CHENNAI for the voluntary mapping series	5 th June 2013	Ar.Kadambari Badami Ms.Vinaya Padmanabhan
3.	Mapping sessions in various parts of city on every Wednesday for Transparent Chennai	June – August 2013 Eight Weeks of Mapping Sessions	Ar. Kadambari Badami Ms.Vinaya Padmanabhan
4.	Presentation – “Hints for scoring in GRE exam – Score Getter”.	12 th June 2013	Mr.Atiq
5.	Lecture on “Architect as an Entrepreneur”	19 th June 2013	Mr.Rohith Namboothari
6.	Presentation by “Green Building and Sustainability Courses-E learning”	17 th July 2013	Mr.Jeslin & Ar.Dhruv, Green Building Research Institute

ZONAL NASA CONVENTION-‘APOLOGUE’

S.No	Event Name	Dates	Invited Guest(s)
1.	Technical Session I	15 th August 2013	Ar. Dean D’Cruz, Mozaic, Goa
2.	Technical Session II	15 th August 2013	Ar.John Wallis
3.	Gamification	15 th & 16 th August 2013	Ar.Hariesh, Descroll Design
4.	Technical Session III	16 th August 2013	Ar.Fernando Menis, Spain

S.No	Event Name	Dates	Invited Guest(s)
5.	Future Architecture-Panel Discussion	16 th August 2013	Ar.Durganand Balsavar
6.	Technical Session IV	16 th August 2013	Ar.Sanjay Mohe, Mindspace,Bangalore
7.	Technical Session V	16 th August 2013	Prof. Udhay Gadkari, President, COA, New Delhi
8.	Technical Session VI	15 th August 2013	Ar.Pavitra Sriprakash, Shilpa Architects, Chennai

Orientation Week for First Year Students

No	Activity	Dates	Name of the Expert
1.	Orientation Programme	20 th July 2016	Ms.Arthi
2.	Orientation Programme	3 rd August 2015	Ar. Pramod & Ar.Kurian George
3.	Orientation Programme	1 st August 2014	Ar. Dhanasekar
4.	Guest Lecture on "Architectural Profession - Indian and Global Context"	1 st August 2013	Ar. Jon Wallis, White Design Allies, UK
5.	Guest Lecture on "Significance of Architecture as a Profession"	6 th August 2013	Ar.Sujatha Shankar, Co-convenor, INTACH Chennai Chapter
6.	Lecture by Alumnus	5 th August 2013	Ar.Jack Chandy Francis, Chandy Consultants,Kottayam
7.	Lecture by Alumnus	5 th August 2013	Ar.Judy Vinothini, Principal Architect, L & T Construction, Residential Buildings

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- Accredited by NAAC as **B⁺⁺**
- Declared as **A** category by the task force appointed by MHRD
- Approved by Council of Architecture, New Delhi
- Certified with ISO 901:2008 by DNV, Netherlands.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- BIM Software training programme
- Integrated Environmental solutions Software
- Thermal Mapping of the Department and the University for the Micro Climatic Study Analysis.
- Workshop in collaboration with Sharon Plywoods for carpentry.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths : Supportive Management
Experienced Faculty Members
Proficient in Team work performance
Committed, young and dynamic faculty
Excellent Academic performance of students
Competent and disciplined students
Achievements of faculty and student at national and international forums
Freedom of Collaborative functioning

Weaknesses	:	Consistency of Experienced Faculty members Writing proposals for funded projects
Opportunities	:	Campus recruitments Consultancy projects for the Management MOU with other reputed universities at National and International levels Research Activities and Writing funded project proposals to govt. Agencies
Challenges	:	Involving practicing architects in conceptualizing architectural design program Exposure to works of Architectural legends and interaction with international architects Upgrading to meet the future demands in the profession and society

52. **Future plans of the department.**

We envision developing the Department of Architecture, Sathyabama University as a state of Art Architectural Research Centre in Sustainable Design and Urban Planning and serving the Nation.

We intend to achieve this by

- Undertaking research and development activities in emerging architectural thrust areas
- Introducing new innovative courses based on the needs of building industry Architectural Community Needs
- Collaborating with National and International Institutes, research centre's and allied industries
- Serving the Community at large with environmentally sensitive, eco friendly and sustainable architectural solution with social responsibility

The short term goals of the department include;

- Nurturing students in the exploration of architectural skills and its divergent approaches, their creativity in design, and their expressions of beliefs in professional activities.
- Inspiring students to demonstrate their commitment towards environment and the development of a quality built environment.
- Building research skills throughout the curriculum and encourage student participation in faculty research
- Create a platform to allow researchers including staff and students, to collaborate on projects in developing innovative strategies in the built environment.
- Involve students in community and social activities to increase their responsibility in the making of the society
- Demonstrating a strong faith in the profession through the curriculum, our teachings, and lives.

6. SCHOOL OF BUSINESS ADMINISTRATION

1. **Name of the Department** : Department of Business Administration
2. **Year of establishment** : 1993
3. **Is the Department part of a School/Faculty of the university?**
Yes, School of Management Studies
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
 - UG Course**
B.Com
 - PG Course**
MBA – Regular
MBA – Part Time
 - Ph. D. Programme**
Doctor of Philosophy in Business Administration
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Collaboration with Oracle University to offer training in soft ware related to Finance, Marketing, Human Resources and Production is on the anvil

7. **Details of programmes discontinued, if any, with reasons:** NIL

8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**

Semester based examination systems and absolute credit system

9. **Participation of the department in the courses offered by other departments.**

Sl. No.	Name of the subject	Services offered to the departments
1.	Principles of Management and Professional Ethics	<ul style="list-style-type: none"> • Aeronautical Engineering • Automobile Engineering • Bio-Informatics • Bio-Medical • Bio-Technology • Civil Engineering • Computer Science & Engineering • Electrical & Electronics Engineering • Electronics & Communication Engineering • Electronics & Control Engineering • Electronics & Instrumentation Engineering • Electronics & Tele Communication Engineering • Information Techonology • Mechancial & Production Engineering • Mechanical Engineering

Sl. No.	Name of the subject	Services offered to the departments
2.	Engineering Economics and Marketing Management	<ul style="list-style-type: none"> • Chemical Engineering
3.	Total Quality Management	<ul style="list-style-type: none"> • Mechanical Engineering • Mechancial & Production Engineering • Automobile Engineering
4.	Resource Management Techniques	<ul style="list-style-type: none"> • Chemical Engineering • Information Technology Engineering • Civil Engineering • Computer Science & Engineering • Eletricals & Electronics Engineering
5.	Industrial Engineering	<ul style="list-style-type: none"> • Mechancial Engineering • Mechancial & Production Engineering
6.	Financial Management	<ul style="list-style-type: none"> • Architecture (Post Graduation)
7.	Life Employability Skills	<ul style="list-style-type: none"> • Physics (Post Graduation)

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)**

Description	Sanctioned	Filled
Professor	14	14
Associate professors	09	09
Assistant Professors	12	12
Others	Nil	Nil

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Sl. No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Ph.D students guiding for the last 4 years
1.	Dr. M. Siva Subrimanian	M.A, MBA, M.Phil, Ph.D	Professor & Dean	Entrepreneurship	28	Nil
2.	Mr. Shanmuga Raman. G	MBA. M. Phil, UGC-NET, (Ph.D),	Associate Professor	Marketing & Human Resource	35	NIL
3.	Mr. P. T. Prabhakaran	M.Com, M.A, B.Ed, MBA, M.Phil	Associate Professor	Marketing & Finance	28	NA
4.	Dr. R. Thamilselvan	M.Com., MBA, M. Phil, B.Ed, Ph. D	Professor	Finance	23	6
5.	Dr. A. Govindarajan	MBA, M.Phil, UGC – NET, Ph.D	Professor	Finance	19	Nil
6.	Dr. M.L. Gnanadasan	MBA, UGC – NET, Ph.D	Professor	Finance	19	Nil
7.	Dr. Chitra Devi	MBA, M.Phil, UGC – NET, Ph.D	Professor	Human Resource	19	Nil
8.	Dr. N.Kannan	B.Com.,MBA, PGDCA., M.Phil, UGC – NET, Ph.D, (L.L.B)	Professor	Finance & Marketing	18	8 Completed 2
9.	Mr. John Britto	MBA, M.Phil, MHRM, (Ph.D)	Associate Professor	Marketing & Human Resource	17	NA

Sl. No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Ph.D students guiding for the last 4 years
10.	Ms. R. Meena Kumari	MBA, M.Phil, UGC – NET, (Ph.D)	Associate Professor	Marketing	16	NA
11.	Dr. T. R. Kalailakshmi	M.A, MBA, M.Phil, UGC – NET, Ph.D	Professor	Marketing	16	1
12.	Dr. Bhuvaneshwari. G	MBA, Ph.D	Professor	Marketing & Human Resource	16	6
13.	Ms. Bagirathi	MBA, M.Phil, (Ph.D)	Associate Professor	Human Resource & Systems	15	NA
14.	Ms. Uma Maheswari	MBA, MBM, M.Phil, UGC – NET, (Ph.D)	Associate Professor	Finance & HR	15	NA
15.	Ms. Velumoni	MBA, M.Phil, UGC – NET, SLET, (Ph.D)	Associate Professor	Finance & Systems	14	NA
16.	Dr. J. Rani	MBA, M.Phil, Ph.D	Professor	Marketing	14	Nil
17.	Dr. Maya Vadivelan	MBA, PGDPR, GNIIT, Tally, Ph.D	Professor	Human Resource & Marketing	14	Nil
18.	Dr. Nithya Shankar	MBA, M.Phil, Ph.D	Professor	Marketing & Human Resource	14	Nil

Sl. No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Ph.D students guiding for the last 4 years
19.	Mr. Ganesh. M	MBA, (Ph.D)	Associate Professor	Finance & Marketing	13	NA
20.	Dr. Preethi Seshadri	M.Com., MBA, M.Phil, PGDFM., UGC – NET, Ph.D	Professor	Finance & Marketing	13	Nil
21.	Ms. Lavanya	MBA, M.Com, M.Phil, UGC – NET, (Ph.D)	Assistant Professor	Human Resource & Marketing	12	NA
22.	Dr. J. Bhavani	MBA, M.Phil, Ph.D	Professor	Human Resource & Marketing	12	3
23.	Dr. Angeline	MBA, M.Phil, UGC – NET, Ph.D	Professor	Human Resource & Marketing	12	Nil
24.	Ms. D. Mohana Kumari	MBA, M.Phil, (Ph.D)	Assistant Professor	Marketing & Human Resource	11	NA
25.	Dr. Dhivya Sathish	MBA, M.Phil, Ph.D	Assistant Professor	Marketing	11	NIL
26.	Dr. Krishna Priya	MBA, M.Phil, Ph.D	Associate Professor	Marketing & Human Resource	11	NIL
27.	Ms. Jayanthi	MBA, PGDIM, M.Phil, UGC – NET, (Ph.D)	Assistant Professor	Finance & Marketing	10	NA
28.	Ms. Aysha Fathima	M.Com, MBA, M.Phil, UGC – NET, (Ph.D)	Assistant Professor	Finance & Human Resource	10	NA

Sl. No.	Name	Qualification	Designation	Specialization	No of years of experience	No of Ph.D students guiding for the last 4 years
29.	Mr. Daniel Rathinaraj	MBA, (Ph.D)	Assistant Professor	Finance & Systems	10	NA
30.	Ms. Joyce	MBA, M.Phil, (Ph.D)	Assistant Professor	Finance & Human Resource	10	NA
31.	Ms. Mary Sharmila	M.Com, M.Phil, M.B.A., PGDCA, (Ph.D)	Assistant Professor	Finance	10	NA
32.	Ms. Bala Meena Priya	MBA	Assistant Professor	Marketing & Human Resource	9	NA
33.	Ms. Kavitha Rajayogan	MBA, (Ph.D)	Assistant Professor	Systems & Finance	8	NA
34.	Ms. A. Shanthi	MBA, (Ph.D)	Assistant Professor	Finance & Marketing	8	NA
35.	Mr. John Paul. M	MBA, MHRM, PGDBIM, M.Phil, PGDCA, (Ph.D)	Assistant Professor	Finance & Marketing	8	NA

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors:**

Visiting Fellows:

- Mr Regi Thomas, KARVY Stock Broking Ltd.
- Mr Kowshi , Exide Life Insurance Ltd.
- Mr Kailash Giri, Tube India Cycles.
- Mr Rajagopal , Former Director (HR), Cognizant
- Mr Dhamotharan, Director, IBM.

13. **Percentage of classes taken by temporary faculty-programme –wise information :** 2 %

14. **Programme- wise Student Teacher ratio:**

The combined teacher student ratio: 1:20

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Technical staff	02	02
Administrative staff	Nil	Nil
Others	Nil	Nil

16. Research thrust areas as recognized by major funding agencies

Sl. No.	Major Thrust Areas	Funding Agencies
1.	Skill Development – Skill Development Program for Unemployed Youth	Ministry of Micro Small and Medium Enterprise (MSME), Government of India
2.	Women Empowerment – Entrepreneurship for Women Self Help Groups	Tamil Nadu Corporation for Development of Women (TNCDW) Government of Tamil Nadu, NABARD, Entrepreneurship Development Institute (EDI), Government of Tamilnadu
3.	Women Empowerment – Awareness program on Human Rights for Women	National Human Rights Commission (NHRC)
4.	Entrepreneurship -Technology Business Incubation	Department Science and Technology (DST), Government of India
5.	Entrepreneurship - Students Enrichment Program	Entrepreneurship Development Institute (EDI), Government Tami Nadu & Ministry of Micro Small and Medium Enterprise (MSME), Government of India
6.	Entrepreneurship -Entrepreneurship Awareness Program	Canara Bank, India Bank, Entrepreneurship Development Institute (EDI)
7.	Corporate Executive Training	India Post , Postal Department, Government of India, NLC Neyveli.
8.	Industrial Safety - Risk and Disaster management	BHAVINI – A Subsidy of IGCAR, Government of India
9.	Quality Improvement – Six Sigma	Indra Gandhi Centre for Atomic Research , Kalpakkam

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

a) National Level Funded Projects and Programs

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned in Rs	Duration
1.	Dr. G. Bhuvanewari & Dr. Maya	Human Rights for women	National Human Rights Commission (NHRC)	2014	50,000	1 day
2.	Dr. B. Aiswarya, and Dr. Krishna Priya	Human Rights for women	National Human Rights Commission (NHRC)	2014	50,000	1 day
3.	Dr. B. Aiswarya, Dr. Siva subramanian and Dr. Krishna Priya	Women Entrepreneurship Development Program	Entrepreneurship Development Institute (EDI),	2014	1,05,230	30 days
4.	Dr. B. Aiswarya and Dr. J. Bhavani	Women Entrepreneurship Development Program	EDI	2014	1,73,750	25 days
5.	Dr. R. Thamilselvan	Entrepreneurship Skill Development Program on "House Wiring"	Micro Small and Medium Enterprise (MSME)	2013	39,000	6 weeks
6.	Dr. B. Aiswarya and Dr. J. Bhavani	Women Entrepreneurship Development Program	EDI	2013	1,73,750	25 days
7.	Dr. R. Thamilselvan	Entrepreneurship Skill Development Program on "House Wiring"	MSME	2013	46,000	6 weeks

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned in Rs	Duration
8.	Dr. R. Thamilselvan	Entrepreneurship Skill Development Program on "Bio Technology"	MSME	2013	39,000	6 weeks
9.	Dr. B. Aiswarya and Ms. MeenaKumari	3rd National Conference on "Emerging New Trends in Managerial Excellence"	Indian Bank and NABARD	2013	60,000	One day
10.	Dr. R. Thamilselvan	Entrepreneurship Development Program	MSME	2013	10,000	2 weeks
11.	Dr. B. Aiswarya and Ms. Lavanya	Entrepreneurship Awareness Camp	EDI, Chennai, Canara Bank	2013	10,000	Three days
12.	Dr. R. Thamilselvan	Management Development Program (MDP)	MSME	2012	10,000	Five days
13.	Dr. R. Thamilselvan	Management Development Program (MDP)	MSME	2012	10,000	4 weeks
14.	Dr. R. Thamilselvan	Entrepreneurship skill development program – Mobile Phone Servicing	MSME	2012	10,000	6 weeks
15.	Dr. R. Thamilselvan	Entrepreneurship skill development program – Mobile Phone Servicing	MSME	2012	10,000	6 weeks

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned in Rs	Duration
16.	Dr. B. Aiswarya and Ms. Bhavani	CONSET	TNWDC, Indian Bank, MSME, and REPCO Bank	2012	60,000	Two days
17.	Dr. R. Thamil Selvan	Entrepreneurship Program in Association with MSME on "LaptopServices"	MSME	2011	10,000	6 weeks
TOTAL					9,46,230	

18. Inter-institutional collaborative projects and associated grants received : Nil

19 Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned in Rs	Duration
1.	Dr. Mariazeena Johnson and Dr. G. Bhuvaneshwari	Thematic Convergence on poverty, alleviation of rural women through women empowerment bureau	Ministry of women and Child Development	2014	12,00,000	1 year
2.	Dr. B. Aiswarya	Risk and Disaster Management	BHAVINI	2014	5,56,890	1 year
3.	Dr. B. Aiswarya	Technology Business Incubator (TBI)	DST	2013	65,00,000	5 years

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned in Rs	Duration
4.	Mr. Shanmuga Raman	Development of measures for weld defects reduction in the Nuclear Components during Fabrication using Six Sigma Approach	IGCAR, Kalpakkam	2012	9,00,000	30 months
5.	Dr. G. Bhuvaneswari	Entrepreneurship Awareness Camps	DST & EDI - Ahmedabad	2012	67,500	1 year
6.	Dr. S.S. Rau	Executive Development Program	Neyveli Lignite Corporation	2002-03	5000 per head	2 years
7.	Dr. S.S. Rau	Development of Financial Skills among Non-Financial Executive	AICTE Sponsored program	1997	50,000	15 days
8.	Dr. S.S. Rau	Vacational Training for self-employment among unemployed Rural Youth	AICTE Sponsored program - TAPTEC	1998	3, 00, 000	2 years
9.	Dr. S.S. Rau	Development of Employable qualities among the women work force	AICTE Sponsored program - MODROB	1997	3, 00, 000	2 years s
TOTAL					98,73,500s	

20. **Research facility / centre with**

- Entrepreneurial Development Institute (EDI) – Government of Tamilnadu
- Technology Business Incubator (TBI), Department of Science and Technology, Government of India
- Micro Small Medium Enterprise (MSME – DI) – Government of India

21. **Special research laboratories sponsored by / created by industry or corporate bodies: Nil**

22. **Publications:**

Number of papers published in peer reviewed journals (national / international) - 667

- Monographs – NIL
- Chapters in Books – NIL
- Edited Books – NIL
- Books with ISBN with details of publishers : 362 (Conference proceedings with ISBN)
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : WOS – 06; Scopus – 67
- Citation Index – range / average : 1 to 13
- SNIP : 0.736
- SJR : 0.493
- Impact Factor – range / average : 0.012 to 2.1652
- h-index : 1

23. **Details of patents and income generated : Nil**

24. **Areas of consultancy and income generated**

S. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr. M. Sivasubramanian Dr. TR. Kalai Lakshmi Dr. J. Bhavani	Evaluation of Effectiveness of Entrepreneurship Training	Entrepreneurship Development Institute, Government of Tamilnadu	2016	1,00,000	3 months
2.	Dr. B. Aiswarya and Ms. J. Bhavani	Refresher Training Program - Postal Department	Postal Department, Government of India	2013	12,000	Two days
3.	Dr. S.S. Rau	Executive Development Program for Middle Level Executives of Neyveli Lignite Corporation	Neyveli Lignite Corporation	2005	45,00,000	2 years
TOTAL					46,12,000	

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad : NIL**

Dr. G. Bhuvanewari : selected for visiting Indian Institute Management (Ahmedabad)

26. **Faculty serving in**

a) **National committees**

Dr. G. Bhuvanewari -

Federation of Indian Chambers of Commerce and Industry (FICCI),

Madras Management Association (MMA) ,

Confederation of Indian Industry (CII)

b) **International committees** – NIL

c) **Editorial Boards**

S. No.	Name of the journal	Name of the faculty	Position
1	International Journal of Information Science and Computing	Dr. Bhuvaneswari	Editor
2	National Journal of Advances in Computing and Management	Dr. Bhuvaneswari	Editor

d) **any other (please specify)** : Nil

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

SI. No.	Month & Year	Name of the program	Topic
1.	July, 2015	Faculty Development Program	Research Methodology
2.	March, 2014	National Level FDP	Small Business Management
3.	July, 2014	Workshop	SEM using SPSS
4.	September, 2013	National level workshop	Social media marketing
5.	October, 2013	National Level Workshop	Effective teaching strategies for accounting and finance
6.	February, 2013	National Level Management Education Program	Emerging marketing strategies in a dynamic environment

Sl. No.	Month & Year	Name of the program	Topic
7.	February, 2013	National Level Workshop	Recent Trends in Qualitative Research methods
8.	December, 2013	National Level Workshop	Marketing Strategy
9.	December, 2013	Education program	Multivariate Data Analysis
10.	April, 2013	National Level Workshop	Idea to execution for Entrepreneurs
11.	October, 2012	National Level MMA Convention	Entrepreneurship – the road les travelled
12.	January, 2012	Seminar and panel-cum interactive discussion	Research in management – getting started, overcoming hurdles and keeping progress
13.	August, 2012	National Level Workshop	Research techniques in Management
14.	August, 2012	National Level FDP	Application of Statistical tools in management research using SPSS & AMOS
15.	September, 2011	National Level Workshop	Case writing workshop
16.	September, 2011	One day symposium	Emerging trends in hospitality management
17.	March, 2011	National level FDP	Research Report Writing
18.	March, 2011	National level FDP	Managing Emotions
19.	March, 2011	National Level Workshop	Research Publications
20.	March, 2011	National Level Workshop	Talent Transition
21.	Janurary, 2011	National level FDP	"New Methods of Management Teaching".
22.	Janurary, 2011	National Level Workshop	Seminar and panel cum interactive discussion on research in management

SI. No.	Month & Year	Name of the program	Topic
23.	December, 2011	National level FDP	"Research Techniques in Management"
24.	October, 2010	National Level Workshop	"Strategic career alerts for MBA's As - Business Executive/Entrepreneur/Research"
25.	October, 2010	National Level Workshop	National level workshop on Entrepreneurship
26.	February, 2010	National Level Workshop	Quality through Six Sigma concept and its Implementation
27.	August, 2010	Certificate course	Banking Technology
28.	August, 2010	National Level Workshop	Research problem formulation and output documentation.
29.	August, 2010	National Level Workshop	SPSS statistical applications in research
30.	September, 2009	National Level Workshop	Emerging trends in supply chain management
31.	October, 2009	National Level Workshop	Research Methodology
32.	November, 2009	National Level Workshop	Balance of emotional Intelligence in working environment for teaching faculty
33.	November, 2009	National Level Workshop	Workshop on Teaching Models
34.	March, 2009	National Level Workshop	Application of SPSS and Article Writing
35.	January, 2009	National Level Workshop	Emerging trends in Retail Marketing
36.	January, 2009	National Level Workshop	Article publication
37.	January, 2009	National level FDP	Emerging Trends in Retail Marketing
38.	February, 2009	National Level Workshop	Case study development
39.	December, 2009	National Level Workshop	The Future of Management Education: Prospects and Challenges

SI. No.	Month & Year	Name of the program	Topic
40.	August, 2009	National Level Workshop	How to do Research
41.	April, 2009	Training program	Train the Trainer
42.	October, 2008	National Level Workshop	Applied Statistical Techniques using SPSS
43.	October, 2008	National Level Workshop	SPSS Package workshop
44.	Janurary, 2008	National Level Workshop	Nuances of Teaching Accounting
45.	February, 2008	National Level Workshop	ATHENAEUM 08 -Conference on Management Research, How to do Research
46.	December, 2008	National Level Workshop	Innovation in Micro Finance
47.	December, 2008	National Level Workshop	Emerging trends in Supply Chain Management
48.	April, 2008	National Level Workshop	Campus connect
49.	April, 2008	National Level Workshop	"Soft Skills Development"
50.	September, 2007	Seminar	Entrepreneurial awareness and development
51.	October, 2007	National Level Workshop	Neuro linguistic teaching.
52.	February, 2007	National Level Workshop	Work shop on Human Resource Audit
53.	February, 2007	Seminar	Recent Trends in Export Financing
54.	December, 2007	Certificate course	Project Work
55.	December, 2007	National Level Workshop	Induction Training Programme for Engineering College Teachers

28. **Student projects**

- percentage of students who have done in-house projects including inter- departmental projects: 2%
- percentage of students doing projects in collaboration with industry / institute

98% students have done projects in industry

29. **Awards / recognitions received at the national and international level.**

		National Level	International Level
Staff		3	-
Students	(Extra / Cocurricular)	72	-
	Sports	58	-

30 **Seminars/ Conferences/ Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

National level conferences organized

S. No.	Name of Seminars and Conferences	Date	Funding Agency	Outstanding participants
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1.	3 rd National Conference on “Emerging New Trends in Managerial Excellence”	25 th October, 2013 One day	Indian Bank and NABARD	Best paper award
2.	2 nd National Conference on “Emerging New Trends in Managerial Excellence”	October 2012 Two days	In Association with CII & MMA	Best paper award
3.	National Conference on “Emerging New Trends in Managerial Excellence”	Oct, 13 & 14, 2011 2 days	Self Supported	Best paper award

National level Faculty Development Program, Training Program and Workshops organized

a. Faculty

S. No.	Name of FDP, Training Program and workshop	Date	Funding Agency
1.	FDP on Research	July, 2015	Self supported
2.	Women Entrepreneurship Development Program	February, 2014	EDI
3.	Art of Investing in Stock Markets	December, 2013	Self Supported
4.	Women Entrepreneurship Development Program	December, 2013	EDI
5.	FDP - Financial literacy program.	March, 2013	Reserve Bank of India
6.	Refresher Training Program - Postal Department	January, 2013	Postal Department, Government of India

S. No.	Name of FDP, Training Program and workshop	Date	Funding Agency
7.	Business Skill Development Program	May, 2012	MSME
8.	Faculty Development program in SPSS	September, 2012	Self Supported
9.	Computer Literacy Program	May, 2012	TNWDC
10.	CONSET	March, 2012	TNWDC, Indian Bank, MSME, and REPCO Bank
11.	National Level Faculty Development Program on "Art of Writing Thesis"	August, 2011	Self Supported
12.	National workshop on "Case Study Pedagogy"	August, 2011	Self Supported

b. Student

S. No.	Name of Training Program and workshop	Date	Funding Agency
1.	Entrepreneurship orientation programme	July 2016	NSIC, Technical Services Centre, Chennai
2.	Workshop on Emerging Practices in HR	July 2016	Self supported

S. No.	Name of Training Program and workshop	Date	Funding Agency
3.	Certification program on Insurance	June 2016	Self Supported
4.	Certification program on cloud computing	June 2016	Self Supported
5.	Certification program on Stock Marketing	June 2016	Self Supported
6.	Introduction to Lean Six Sigma	March 2016	Self supported
7.	Workshop on Stock Markets	December, 2014	Self Supported
8.	Workshop on Innovative HR Strategies for Budding Managers	August, 2014	Self Supported
9.	Workshop on Marketing Strategies for Enterprising Managers	July, 2014	Self Supported
10.	Food Processing	Mar, 2014	EDI
11.	Women Entrepreneurship Development Program	February, 2014	EDI
12.	Women Entrepreneurship Development Program	December, 2013	EDI
13.	Intellectual property rights	July, 2013	Intellectual property rights.
14.	Aspiration Civil service	June, 2013	Self Supported
15.	Entrepreneurship Awareness Camp	April , 2013	EDI, Chennai, Canara Bank
16.	National Level Management Meet	September, 2011	Self Supported

S. No.	Name of Training Program and workshop	Date	Funding Agency
17.	National Level ET at Campus – Quiz Competition	February, 2011	In Association with The Economic Times
18.	National Level Management Meet	July, 2010	In association with Entrepreneurship Development Cell
19.	National Level ET at Campus – Quiz Competition	February, 2010	In Association with The Economic Times
20.	National Level Seminar On Entrepreneurial Development	January, 2010	Self Supported
21.	National Level Management Meet	September, 2009	Self Supported
22.	National Level ET at Campus – Quiz Competition	February, 2009	In Association with The Economic Times
23.	National Level Management Meet	September, 2008	Self Supported

31. **Code of ethics for research followed by the departments:**

- Responsible Publications
- Respect for Intellectual Properties
- Non discrimination
- Respect for confidentiality and privacy

32. Student profile programme-wise:

a. Profile :

Name of the Programme (refer to question 4)	Batch	Application received	Selected	
			Male	Female
UG – B.Com	2015	507 (1:3)	64	105
PG - MBA		356 (1:2)	100	78
UG – B.Com	2014	513 (1:3)	97	74
PG - MBA		376 (1:2)	110	78
UG – B.Com	2013	333 (1:3)	56	55
PG - MBA		428 (1:2)	137	77
UG – B.Com	2012	174 (1:3)	35	23
PG - MBA		672 (1:2)	221	115

b. Pass Percentage:
B.Com

BATCH	PASS %
2012-2015	83.3
2013-2016	95.2
2014-2017(TILL IV SEM)	86.5
2015-2018(TILL II SEM)	85.8

MBA

BATCH	PASS %
2012-2014	84.1
2013-2015	92.8
2014-2016	98.9
2015-2017(TILL II SEM)	94.9

33. **Diversity of students**

Name of the Programme (refer to question no. 4)	% of Students from the Same university	% of students from other universities within the State	% of students From universities outside the State	% of Students from Other countries
UG – B.Com (2015 Batch)	NA	NA	NA	1
PG - MBA (2015 Batch)	14	56	30	Nil
UG – B.Com (2014 Batch)	NA	NA	NA	Nil
PG - MBA (2014 Batch)	18	55	27	Nil
UG – B.Com (2013 Batch)	NA	NA	NA	Nil
PG - MBA (2013 Batch)	13	62	25	Nil
UG – B.Com (2012 Batch)	NA	NA	NA	Nil
PG - MBA (2012 Batch)	12	53	35	Nil

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise : Nil**

35. Student progression

Student progression	Percentage against enrolled
UG to PG	34
PG to M.Phil.	Nil
PG to Ph.D.	6
Ph.D. to Post-Doctoral	Nil
Employed	
• Campus selection (2015-16)	95.58*
Entrepreneurs	9

* Out of Registered students

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	28%
from other universities within the State	69.5%
from universities from other States	2.5%

from universities outside the country	Nil
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37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

- Doctoral in the year 2009
 - Mr. S. Muthumani
- Doctoral in the year 2010
 - Ms. Vaishali C Mahajan
- Doctoral in the year 2012
 - Ms. B. Aiswarya
 - Ms. G. Bhuvaneswari
- Doctoral in the year 2013
 - Ms. J. Bhavani
 - Ms. V. Krishna Priya
 - Ms. R. Dhivya
 - Ms. R. Saranya
 - Ms. M.Maya
 - Ms. T. R. Kalailakshmi
- Doctoral in the year 2014
 - Mr. M.Sivasubramanian
 - Ms. Nithya Shankar
- Doctoral in the year 2015
 - Mr. A. Govindarajan
 - Ms. Preethi Seshadri
 - Mr. M. L. Gnanadasan
- Doctoral in the year 2016
 - Ms. Angeline

38. Present details of departmental infrastructural facilities with regard to

a) Library

No. of text books	No. of references	Cost of all the books
13454	77	23,69,481

b) Internet facilities for staff and students : University Working hours

c) Total number of class rooms : 16

d) Class rooms with ICT facility : 4 smart class rooms

e) Students' laboratories : 1

AREA OF THE LABORATORY: 9700 sq.ft.

DETAILS OF EQUIPMENT:

Name of the Equipment	Quantity	Name of the manufacturer	Hours of utilization, per week
IBM server xeon x 3400	1	IBM	25
IBM server xeon x 3200 M2	1	IBM	25
SPSS server	1	LENOVA	25
Client systems	125	LENOVA THICKCENTER	25
Network switches	8	D – LINK	25

Ups	5	NUMERIC	25
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LIST OF EQUIPMENT (HARDWARE OR SOFTWARE) (EACH) COSTING MORE THAN**Rs.1, 00,000/-**

Name of the equipment	Quantity	Name of the manufacturer	Hours of utilization, per week
IBM SERVER Xeon X3400	1	IBM	25
IBM SERVER Xeon X3200 M2	1	IBM	25
LENOVA THINKCENTER PC (HARDWARE)	126	LENOVA	25
UPS (HARDWARE)	5	NUMERIC	25
WINDOWS 7 ULTIMATE (SOFTWARE)	126	MICROSOFT	25
SPSS 18 v (SOFTWARE)	1 – 70 Users	SPSS	25

LIST OF EQUIPMENT (HARDWARE OR SOFTWARE) (EACH) COSTING LESS THAN Rs.1, 00,000/-

Name of the equipment	Quantity	Name of the manufacturer	Hours of utilization, per week
Network switches (hardware)	8	D – LINK	25
Windows server 2008 r2 (software)	2	MICROSOFT	25
Tally - ERP	120 clients	TALLY	15

f) **Research laboratories** : NIL

39. **List of doctoral, post-doctoral students and Research Associates**

a) from the host institution/university :02 (4 Years)

b) from other institutions/universities : 20 (4 Years)

40. **Number of post graduate students getting financial assistance from the university.**

S. No.	Course	Batch	Category	No. of Students
	B. Com	2015	Scholarship	06
		2014	Scholarship	11
			Sports	05
		2013	Sports	11
			Coastal Peace Deveelopmet (CPD)	03
		2012	Scholarship	2
	Sports		10	
	MBA	2015	Scholarship	10
			CPD	01
		2014	Sports	01
			CPD	27
		2013	Sports	10
			CPD	40
		2012	Sports	04
			CPD	67

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Yes, need assessment exercises were undertaken based on analysis of feedback from the industry and academic experts.

42. **Does the department obtain feedback from**

a. **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, based on the feedback given by the faculty on curriculum is obtained and based on that new topics were added. New elective papers are decided. Feedback obtained from faculty on teaching-learning-evaluation is used for deciding on additional classes for non-commerce and also for differently abled.

b. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Feedback obtained from students on staff is used for improvement in teaching methodology and also personal adaptation by the faculty. Feedback from students on teaching-learning-evaluation is utilized for lesson planning.

c. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Feedback from Alumni and employers is utilized for deciding on curriculum revision, new electives and value added courses.

43. **List the distinguished alumni of the department (maximum 10)**

S. No	Name	Students Batch	Position
1.	K.S. Rajasekar	2000-2002	Director, Dhanam Fashions Pvt. Ltd
2.	Deepa Prakash	1997-99	Business Analyst, USA
3.	Aloysius. P	1997-99	Country Head
4.	Livingston	2011-13	Resource Head
5.	Bijendra Mohanty	2001-03	Asst.Professor
6.	Raja Srinivasan	2006-08	Team Head

S. No	Name	Students Batch	Position
7.	C. Govindan	2006-08	Specialist at SCM
8.	Elangovan	2002-2004	Marketing Manager
9.	J. Mahesh Rathnaraj	2002-04	Professional HR-MGR
10.	Lordson Das	2004-06	Location Head
11.	N.Mahesh Anand	1997-99	Business Development Manager
12.	Prakash	1996-98	Asst.V.P.
13.	R. Prithuvi Rajan	2004-06	Senior Associate HR
14.	Reena Gabriel	1998-00	Marketing Manager
15.	Sunder Ganesh	2001-03	Manager-HR
16.	Arun L	2013-15	Business Development Executive
17.	Prasanth	2013-15	Operation Executive
18.	Thirupathiraja	2013-15	Financial Analyst

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	40
Workshops	15

45. List the teaching methods adopted by the faculty for different programmes.

- Class room teaching
- Case methodology
- Seminars
- Role plays
- Management games

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The department ensures attainment of program objectives and learning out comes through periodic continuous assessment exams and assignments. The level of learning of the students are also gauged through the feedback from recruiters and assessment by visiting faculty.

47. Highlight the participation of students and faculty in extension activities.

Faculty participation

- Conducting training program to the corporate employees
- Offering capacity buiding program for socially disadvantaged groups.
- Conducting awareness workshop on promotion of entrepreneurship.

Students participation

- Participated in the WSHGs Trade Fair and helped them to market their products
- Participated in the NSS, Scoute, YRC - Blood Donation Camp

48. Give details of “beyond syllabus scholarly activities” of the department.

- Joint publication of research papers with students
- Undertaking research study for corporates

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

- National Institute of Ranking Framework (NIRF):
42nd at All India level,
5th among Universities in Tamil Nadu and
2nd among private Universities in Tamil Nadu.
- Declared as Category ‘A’ by the task force appointed by Ministry of Human Resource Development, Government of India.
- Accredited by NAAC with B++
- ISO certified 9001:2008

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Research effort of the department in the following thrust areas has contributed considerable new applied knowledge

- Emotional intelligence
- Six sigma in quality improvement of GTAW
- Talent Management
- Customer Relationship Management
- Micro Finance – Inculcate entrepreneurial skills among WSHGs

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

STRENGTHS

- Rigorous curriculum upgrading mechanism
- Impersive and supportive alumni
- Qualified adequate faculty
- Strong discipline oriented culture
- Focused career planning and placement
- Healthy and shared governance

WEAKNESSES

- Inadequate tie-ups with MNCs
- Lack of Inter disciplinary research projects
- Little concentration on consultancy assignments

OPPORTUNITIES

- Increased value of higher education

- Scope for proactive partnership with industries and institutes
- Institutions offering faculty exchange programmes
- Joint doctoral supervision in interdisciplinary domains

CHALLENGES

- Implementing experiential learning methods
- Making students industry ready to meet ever changing industrial needs
- Improving industry exposure of faculty members

52. Future plans of the department.

- Inducting industrial professionals as adjunct faculty
- Introducing certification courses for skill development
- Encouraging start ups through industrial collaborations
- Motivate faculty to under go sabbatical program

7. SCHOOL OF SCIENCE & HUMANITIES

1. **Name of the Department** : Department of English
2. **Year of establishment** : 1987
3. **Is the Department part of a School/Faculty of the university?**
School of the University – School of Science and Humanities
4. **Name of the programmes offered** :
M.A. English & Ph.D.
5. **Inter-Disciplinary programmes and departments involved** :
 - English For Science & Technology with other Departments (for all B.E/ B.Tech students)
 - Functional English with School of Business Administration
 - Communicative English with Visual Communication Department
 - Personality and Public Speaking, Placement Training with other Departments.
6. **Courses in collaboration with other universities, industries, foreign institutions** : MOE with Westcliff University, USA, Infosys, and Cambridge BEC, British Council
7. **Details of programmes discontinued, if any, with reasons** : Nil
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system** : Semester System – Absolute Credit based system

9. Participation of the department in the courses offered by other departments

Sl. No	Title of the Paper	Name of the Course/Department
1	Communicative English	B.Sc Viscom
2	English for Science and Technology	All branches of B.E/B.Tech
3	Functional English	B.Com

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	3	3
Associate professors	2	2
Assistant Professors	2	2
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	No of yrs of experience	No of Ph D/ M Phil students guided for the last 4 years
1.	Dr. Pushpa Nagini Sripada	M A., M.Phil., M. Ed., PGDELT., MHRM., Ph.D	Professor	English Language Teaching English for Science and Technology Assessment and Evaluation	16 yrs	1
2.	Dr. C.L. Shilaja	M.A. M.Phil, Ph.D	Associate Professor	American Literature	11yrs	1
3.	Dr.G.Sithalakshmy	M.A. M.Ed.Ph.D	Professor	English Literature American Literature	21 yrs	-
4.	Dr.S.Mercy Gnana Gandhi	M.A. B.Ed., M.Phil. Ph.D	Professor	English Language Teaching Multimedia Language Teaching	20 years	3
5.	Dr. M.Avinash	M.A. M.Phil. Ph.D	Associate Professor	English Language Teaching	12 yrs	-
6.	Ms J. Amutha Monica	M.A. M.Phil, (Ph.D)	Assistant Professor	American Literature	9 yrs	-
7.	Ms.T. Sathiya Priya	M.A., M.Phil (Ph.D)	Assistant Professor	Post Colonial Literature	5 yrs	

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**
- Dr. Shreesh Choudhary – Former HOD, IIT Madras
 - Dr Saraswathi Former HOD, Univ of Madras, VP - ELTAI
 - Dr. Dhanavel – Professor in English, MIT Chennai
 - Dr. Ilango – Head, Anna University
 - Dr. Meenakshi Raman, HOD, BITS Pilani
 - Dr. Jaya Sudha, Research Officer, TANSICHE
 - Dr. Armstrong, HOD Madras University
 - Dr. Joseph Chandra, HOD Loyola College
13. **Percentage of classes taken by temporary faculty-programme-wise information** : NA
14. **Programme-wise Student Teacher ratio** : 15:1
15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual** : 02
16. **Research thrust areas as recognized by major funding agencies** : CALL
17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise** : Nil

18. **Inter-institutional collaborative projects and associated grants received** : Nil
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received** : Nil
20. **Research facility / centre with** : NA
21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NA
22. **Publications:**
- Number of papers published in peer reviewed journals (national / international) 193
 - Number listed in International Database Web of Science - 2, Scopus - 14
 - Citation Index – range / average 9
 - SNIP 0.166
 - SJR 0.191
 - Impact Factor – range / average 4.024
 - h-index 3
 - Monographs
 - Chapters in Books 11
 - Books Edited 09
 - Books with ISBN with details of publisher Nil
23. **Details of patents and income generated** : Nil

24. **Areas of consultancy and income generated** : Nil
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : Nil
26. **Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)**

Editorial Boards

- Prof. Pushpa Nagini Sripada -Executive Member, Editorial Board - *National Journal on Advances in Computing and Management* , ISSN 0975 7295
- Dr C.L.Shilaja - *Associate Editor - International Journal of Humanities*, CG Publishers
- Dr C.L.Shilaja – Associate Editor, *International Journal of Civic, Political and Community Studies*, CG Publishers
- Dr. S. Mercy Gnana Gandhi – Executive Member in Editorial Board - *National Journal on Advances in Computing and Management* ,ISSN 0975 7295
- Dr. S. Mercy Gnana Gandhi –*Editor - International Journal of Scientific Research and Education*
- Dr. S. Mercy Gnana Gandhi –*Editor - International Journal of Research on English Language Teaching*
- Dr. S. Mercy Gnana Gandhi –*Editor -The American Journal of Science and Medical Research*
- Dr. S. Mercy Gnana Gandhi –*Editor -Biolife - An International Quarterly Journal of Biology and Life Sciences*
- Dr. S. Mercy Gnana Gandhi –*Editor - International Journal of Research and Applications*
- Dr. S. Mercy Gnana Gandhi - *Reviewer- Journal of ELT and Applied Linguistics*
- Dr.Avinash-*Reviewer - Information Technology & People*
- Dr.Avinash-*Reviewer- Education and Information Technologies*
- *Dr.Avinash-Reviewer- Emerald Group*

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

1. FDP on Communicative Skills – March & April 2013
Dr. Pushpa Nagini and Ms. Evangeline
2. Workshop – Paraphrasing and Preventing Plagiarism 27 July 2013
Dr. Pushpa Nagini, Dr. Shilaja CL & Ms. Evangeline
3. FDP for Teachers – Learner Centered Teaching 19 July 2014
Dr. Pushpa Nagini and Dr. Shilaja CL
4. FDP on Internet in Classroom
5. Infosys- Campus Connect Programme- July 2014

28. **Student projects** : NA

29. **Awards / recognitions received at the national and international level by** :

	National Level	International Level
Staff	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

SI No	Seminars/ Conferences/Workshops	Source of funding	No of Participants
1	International Conference on Trends and Innovations in Language Teaching 2014	RELO	250
2	Workshop on Technology for Teaching, 15 Nov 2014, by Dr. Julie Ciancio	RELO	60

SI No	Seminars/ Conferences/Workshops	Source of funding	No of Participants
3	National Conference on Trends in English for Science and Technology Feb 2014	Cambridge University Press	60
4	Workshop on Paraphrasing and Preventing Plagiarism July 2013	Sathyabama University	80
5	Workshop on Teaching Vocabulary at the Tertiary level February 2012	Cambridge University Press	75

31. **Code of ethics for research followed by the departments**

Any research carried out should be free from plagiarism, undoubtedly original by all aspects. Research should never be done for name sake a probe into the topic is essential above all society should be benefited hence researchers are instructed to keep in mind the necessity of students and community in general before they begin a research.

32. **Student profile programme-wise** : NA

33. **Diversity of students** : NA

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise** : NA

35. **Student progression** : NA

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	0
from other universities within the State	89 %
from universities from other States	11 %
from universities outside the country	0

37. **Number of faculty who were awarded M. Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

Six faculty members were awarded Ph. D. during the assessment period.

38. **Present details of departmental infrastructural facilities with regard to**a) **Library**

No. of Books	No. of Text Books	No. of References	Cost of All the Books
128	0	128	88,683
220	0	0	Complementary

b) **Internet facilities for staff and students**

A majority of the faculty members have been provided with a computer along with peripherals and Internet access. All the faculty rooms have been provided dual access to WWW through the broadband as well as University Optical Fiber Network for efficient access to Internet resources.

The Department houses a Department Library that possesses approximately 300 book and journals on various genres of language and literature.

c) **Department laboratories****English Communication Lab**

List of Equipments (Hardware or Software) Costing more than 1,00,000

Name of the Equipment	Quantity	Name of the Manufacturer
Highclass SW 4.0	1 (100 User Version)	Ikonnet Technologies (Shangai) Corporation
Headset with Mike – Big	101	Frontech Multimedia Headphone Systems
English Mastery A, B, C	1 (Multi User)	Alania, American Language Series
Pronunciation Power 1, 2	1 (Multi User)	Blackstone Multimedia Corporation
Talk To Me 1, 2 (Speak Fluent English)	1 (Multi User)	BPB Multimedia
Listen (Disk 1, Disk 2)	1 (Multi User)	Cyber Media Digital
Language In Use(Beginner)	1 (Multi User)	Cambridge University Press
Language In Use (Pre- Intermediate)	1 (Multi User)	Cambridge University Press
Language In Use(Intermediate)	1 (Multi User)	Cambridge Univrity Press

Learn to Speak (English)	1 (Multi User)	BPB Multimedia
Presentations and Public Speaking	1 (Multi User)	BVG Multimedia Training
Project Management	1 (Multi User)	BVG Multimedia Training
Successful Negotiating Skills	1 (Multi User)	BVG Multimedia Training
Business Analysis	1 (Multi User)	BVG Multimedia Training
Successful Meeting Skills	1 (Multi User)	BVG Multimedia Training
Motivation and Teamwork	1 (Multi User)	IPR Publishing Ltd.,
Performance Management	1 (Multi User)	IPR Publishing Ltd.,
Planning & Organising	1 (Multi User)	IPR Publishing Ltd.,
Business Strategy	1 (Multi User)	IPR Publishing Ltd.,

39 **List of doctoral, post-doctoral students and Research Associates:**

- a) from the host institution/university :02 (4 Years)
 b) from other institutions/universities : 02 (4 Years)

40. **Number of post graduate students getting financial assistance from the university. :** NA

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology :** NIL

42. **Does the department obtain feedback from:**

- a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. Feedback from experts were received and accommodated in framing syllabus and in the teaching methods.

- b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**
 The Department has utilized the feedback to enhance consistent growth and creativity in the curriculum. Efforts have been made to include various professional enhancements in the existing curriculum. Focus has been given to writing projects.
- c. **alumni and employers on the programmes offered and how does the department utilize the feedback?** : NIL

43. **List the distinguished alumni of the department (maximum 10)** : Not applicable

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lecture	
Workshops	3
Seminars	1

45. **List the teaching methods adopted by the faculty for different programmes.**
- Use of power-point presentations to bring about a suitable combination of technology and lecture
 - Use of methods like Mock-group discussion, Mock interview, Rating Scale, Questionnaire
 - Emphasis on developing vocabulary skills and grammar through literary competitions to enhance their spoken skills.
 - Use of a variant method of programmed learning in the course material
 - Workshops and Guest Lectures that help them to widen their perspectives
 - Student feedback on teachers is regularly collected and the head of the department conducts a discussion with the colleagues
46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**
- Regular meetings with staff members.
 - Setting up of short term and long term goals and constant monitoring of the path towards the achievement of the goals.
 - Concentrating on the Feedback provided by the students.

- Development of training materials
- Effective monitoring and evaluation system

47. Highlight the participation of students and faculty in extension activities.

SL No	EVENTS	Date
1.	ELLE'12 - Literary Events	JAN 2012
2.	SRSHTI '12 –Literary events in collaboration with Science and Humanities, for II & III year B.E/B.Tech	July 2012
3.	SRSHTI '12 – Literary events in collaboration with Science and Humanities, for the I year B.E/B.Tech	SEPT 2012
4.	'Be A Winner' - Personality Development Programme	12 th to 28 th July 2013
5.	IELTS Training	22 nd and 23 rd July
6.	'Talk Your Way to Success' - Communication Skills Training	July 2013
7.	Communication skills training programme for the Asthinapuram Govt. School Students	Oct 2012
8.	Effective English Training programme for the Hostel Girls	Oct- Nov 2012
9.	'Assertive Communication'- Guest Lecture Programme	March 2013
10.	Workshop on Three Skills to kill Unemployment- Success Mantra, English Literary Club Under Student Development Cell	March 2013

11.	Seminar On "Presentation Skills For Work" Mr. Stephen Chinnaswamy - Infosys	Nov 2013
12.	Placement Training (on Campus)	Nov 2013
13.	Placement Training (Off Campus) Vins College of Engineering, Nagercoil	Dec 2013
14.	Summer camps	May 2013
15.	Creative Writing Workshop	Sept 2013
16.	Creative Writing Workshop	Sept 2014
17.	Reflection'15	July 2015
18.	Theatre Workshop	Sept 2015
19.	Presentation Skills Workshop	March 2016

48. Give details of “beyond syllabus scholarly activities” of the department :

Name of the Activity	Date
ELLE '12 - Literary Events	JAN 2012
SRSHTI' 12 Literary events in collaboration with Science and Humanities	July 2012
SRSHTI'12 Literary events in collaboration with Science and Humanities	SEPT 2012

English Literary club	Every week
Technosummit Literary Events	Sept 2013
Fiction Vista	Sept 2014

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details:**

- Declared as 'A' Category by the Task Force appointed by Ministry of Human Resource Development (MHRD), Government of India.
- Certified by ISO 9001-2008 by DNV Netherlands

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The Department of English since its inception in the year 1987 has been actively involved in academics and research at National and International level. The highly qualified members of Faculty of English have excelled in new areas of study and research like American English, English Language Teaching, English for Corporate Communication, Technical Writing are some of the areas in which the department has generated knowledge.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths

- Our faculty members excel in the quality of their instruction & reputation, as evidenced by invitations they received for conducting workshops at the National and International level.
- Our faculty is very active in publication, exhibition, conference activity and sponsorship
- Our classes integrate and reinforce good reading, critical thinking and writing skills.
- The department has brought out a text book which targets the needs of the students at various levels
- Our department is active in Course and Program assessment.
- Our summer programmes in communicative skills, placement training are unique as the department is often invited to conduct the same in other institutions in Tamil Nadu.

- In addition to the teaching load, extensive university work, the existing faculty members have the ability to remain active in scholarly and creative work.

Weaknesses

- Introduction of more courses is required

Opportunities

- The department has the ability to work further with local and national organizations in improving the teaching skills of ELT educators.
- Increased national interest in teaching and learning English Language, the department can even train corporate.
- Ability to immediately implement programs outside the campus
- Our highly appreciated teaching methodology could be better shared with the other colleges as marketing tools.
- Opportunities to build bridges between our department and the local community.

52. Future plans of the department.

- To organize workshops for Faculty and Students
- To Train students in soft skills and employability skills.
- To encourage staff members to participate in faculty development programmes.
- To undertake research activities in emerging thrust areas.
- To improve language skills of the students in meeting the needs of the industry.
- To organize programs to improve the writing skills of the Students.
- To initiate a project on improving the language skills of the differently abled students.
- To organize workshops and guest lectures for PG Students
- To conduct certification courses.
- To train the students for NET/SLET/UGC exam

1. **Name of the Department** : **Department of Mathematics**
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university? :**
School of Science and Humanities.
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.):**
UG : NIL
PG : M.Sc., (Mathematics) & M.Sc., (Actuarial Sciences)
M.Phil : Mathematics
Research : 1 (Ph.D)
5. **Inter Disciplinary programmes and departments involved** : NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:** NA
7. **Details of programmes discontinued, if any, with reasons** : NIL
8. **Examination systems: Annual/ Semester/ Trimester/Absolute credit base system: Semester, Absolute credit base system.**

9. Participation of the department in the courses offered by other departments:

Name of the Subject	Service given to the Department
Engineering Mathematics I, II, III, IV, Applied Numerical Methods, Statistics, Business Statistics, Discrete Mathematics and Numerical Methods, Probability and Statistics, Business Mathematics, Quantitative Techniques Statistical Methods, Applied Mathematics, Statistics for Bio Informatics, Advanced Mathematics, Mathematical Foundations for Computer Science, Advanced Optimization Techniques ,Research Methodology, Resource Management Techniques, Number Theory and Linear Algebra, Graph Theory, Applied Statistics, Foundation of Mathematics.	All Engineering Disciplines. U.G, P.G., and B.Com. B.Arch & M.Arch

Courses offered by the department:

Name of the Subject	Service given to the Department
Algebra, Real Analysis, Ordinary Differential Equations, Fluid Dynamics, Object Oriented Programming, Object Oriented Programming (Lab), Complex Analysis, Measure and Integration, Topology, Advanced Numerical Methods, Integral equations and Calculus of variation, Latex and Mathematica, Foundations of Mathematics, Functional Analysis, Mathematical Statistics, Partial Differential Equations, Fuzzy Analysis, SPSS and TORA LAB, Advanced Graph theory, Statistical Inference and Stochastic Process, Number theory and Linear Algebra & Advanced Operations Research. Research Methodology, Algebra and Analysis, Advanced Numerical Analysis, Fuzzy sets and systems, Advanced topics in Graph theory, Algebraic Number theory, Fixed Point Theory, Algebraic Coding theory & Computational Fluid dynamics.	M.Sc., & M.Phil Courses

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/ Assistant professors/others)

	Sanctioned	Filled
Professor	8	8
Associate professors	12	12
Assistant Professors	23	23
Others	---	---

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Phil Students guiding for the last 4 years
					Engg	Arts	
1.	Dr.S.Ganesh	M.Sc.,M.Phil,B.Ed.,Ph.D.	Professor	Fluid Dynamics	24	1	07 / 01 Guided 4 Ph.d., students
2.	Dr.M.Nirmala	M.Sc.,M.Phil,Ph.D.	Professor	Time Series Analysis	18	4	03/-
3.	Mrs.Priya Shirley	M.Sc.,M.Phil,	Associate Professor	Demography	13	2	-
4.	Mrs.Mallika	M.Sc.,M.Phil,	Associate Professor	Time Series Analysis	15	2	-
5.	Dr.Rajakumar	M.Sc.,M.Phil,Ph.D.	Professor	Chaos Theory	25	-	-

S. No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Phil Students guiding for the last 4 years
					Engg	Arts	
6.	Dr.S.Maheswari	M.Sc.,M.Phil,Ph.D.	Professor	Operations Research	15	-	-
7.	Dr. K.Shiva Kumar	M.Sc., M.Phil., M.Ed., Ph.D	Professor	Statistical Modelling	17	1	01/-
8.	Dr.R.Rajeshwari	M.Sc.,M.Phil,Ph.D.	Assistant Professor	Graph Theory	11	-	03/-
9.	Mr.K.S.Swaminathan	M.Sc.,M.Phil,	Associate Professor	Operations Research	14	-	-
10.	Dr.T.Kamaraj	M.Sc.,M.Phil, Ph.D	Associate Professor	Theoretical Computer Science	14	-	-
11.	Ms.E.Swarna	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	11	-	-
12.	Dr.A.Amudha	M.Sc.,M.Phil,Ph.D.,	Assistant Professor	Graph Theory	11	1	02/- Guided 1 Ph.d., student
13.	Dr.D.Lalitha	M.Sc.,M.Phil,Ph.D.,	Assistant Professor	Petri Net Theory	9		02/-
14.	Ms.Parameshwari	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	12	-	-
15.	Ms.Manjula	M.Sc.,M.Phil,	Associate Professor	Graph Theory	17	1	-
16.	Dr.Kavitha Gladson	M.Sc.,M.Phil,Ph.D.	Associate Professor	Fuzzy Optimization	12	-	- /01

S. No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Phil Students guiding for the last 4 years
					Engg	Arts	
17.	Dr.Priyadarshini	M.Sc.,M.Phil,Ph.D.	Professor	Statistical Analysis	7	16	-
18.	Mr. S. VaithyasSubramanian	M.Sc.,M.Phil,	Associate Professor	Ethical Hacking	14	-	- / 01
19.	Dr.Kirubhashankar	M.Sc.,M.Phil, Ph.D.,	Professor	Fluid Dynamics	20	-	-
20.	Dr.G.Padma	M.Sc.,M.Phil,Ph.D.,	Associate Professor	Stochastic Process	14	1	-
21.	Dr. J. Jayapriya	M.Sc.,M.Phil, Ph.D.,	Professor	Graph Labeling	15	-	-
22.	Mrs.Bhuvaneshwari	M.Sc.,M.Phil,	Assistant Professor	Theoretical Computer Science	10	-	-
23.	Dr.Mohammed Ismail	M.Sc.,M.Phil, Ph.D	Associate Professor	Fluid Dynamics	14	5	-
24.	Ms.D.Angel	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	8	-	-
25.	Dr.Mary Jeya Jothi	M.Sc.,M.Phil, Ph.D	Assistant Professor	Graph Theory	7	-	01/-
26.	Mrs. R. Revathy	M.Sc.,M.Phil,	Associate Professor	Graph Theory	16	-	-
27.	Mr.Venkata Krishnan	M.Sc.,M.Phil,	Associate Professor	Graph Labeling	13	2	- / 01
28.	Mrs.Girija Bai	M.Sc.,M.Phil,	Assistant Professor	Fluid Computational Dynamics	12	-	-
29.	Dr. M.V.Shyla	M.Sc.,M.Phil, Ph.D.,	Assistant Professor	Fluid Dynamics	10	-	-
30.	Mr.P.Chandra Sekar	M.Sc.,M.Phil,	Assistant Professor	Fluid Dynamics	5	-	-

S. No	Name	Qualification	Designation	Specialization	No of years of experience		No of Ph.D/ M.Phil Students guiding for the last 4 years
					Engg	Arts	
31.	Mr.R.Delhi Babu	M.Sc.,M.Phil,	Assistant Professor	Fluid Dynamics	11	1	
32.	Ms.V.Shyamala Devi	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	5	-	-
33.	Mr.P.Felix Ferdinand	M.Sc.,M.Phil,	Assistant Professor	Operations Research	6	8	
34.	Mr. P.Munippan	M.Sc., M.Phil., (Ph.D.,)	Assistant Professor	Inventory	7	4	- / 01
35.	Mrs.F.Anitha Florence Vinola	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	7	-	-
36.	Mrs.M.S.Franklin Thamil Selvi	M.Sc.,M.Phil,	Assistant Professor	Operations Research	9	-	-
37.	Mrs.M.I.Mary Metilda	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	11	-	-
38.	Ms.A.Antony Mary	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	5	-	-
39.	Mr.S.Praveen Kumar	M.Sc.,M.Phil,	Assistant Professor	Fluid Dynamics	10	4	-
40.	Dr.R.Manoharan	M.Sc.,M.Phil,Ph.D.	ASSOCIATE PROFESSOR	Topology	14	-	01/01
41.	Dr.Kayalvizhi	M.Sc.,M.Phil,Ph.D.	Assistant Professor	Fluid Dynamics	4	1	-
42.	Ms.P.V.Komathi	M.Sc.,M.Phil,	Assistant Professor	Fuzzy Logic	8	-	-
43.	Mrs.M.Prasanna Jeyanthi	M.Sc.,M.Phil,	Assistant Professor	Graph Theory	11	-	- / 01

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**

- Dr.Krishnan B. Chandran, D.Sc., Emeritus Professor, University of Iowa City, IA 52245, USA.
- Dr. P.V. Arunachalam, Founder Vice-Chancellor, Dravidian University, Kuppam Tirupati A.P.
- Dr.S.N. Omkar, Principal Research Scientist, Indian Institute of Science (IIS), Bangalore.
- Dr. A.Arindama Singh, Professor, IIT(M), Chennai
- Dr. B.V. Rathish Kumar, Professor, IIT(K), Kanpur
- Dr.G.Sarojamma, Vice Chancellor, Sri Padmavathy Mahila Visva Vidyalam, Tirupathi.
- Dr.Satyajit Roy, Professor, IIT(M), Chennai
- Dr.S.Sundar, Professor, IIT (M), Chennai.
- Dr. Anantha Narayanan, A.M Jain College, Chennai.
- Dr. K. Vajravelu, Senior Prof. Dept. Of Mathematics, University of Central Florida, USA.
- Dr. S. P. Anjali Devi, Prof. and Head Dept. Of Applied Mathematics, Bharathiar University, Coimbatore.

13. **Percentage of classes taken by temporary faculty-programme –wise information:** NA

14. **Programme- wise Student Teacher Ratio :**

By taking into account the subject handled by the faculty members of other departments into consideration, the teacher student ratio of the department is 1:15.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:** NA

16. **Research thrust areas as recognized by major funding agencies:**
- i. Computational Fluid Dynamics
 - ii. Applied Statistics
 - iii. Mathematical Biology
 - iv. Operations Research
 - v. Mathematical Modeling and Simulation
 - vi. Petri Net
 - vii. Chaos Theory
 - viii. Graph Theory
 - ix. Functional Analysis
17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise** : NIL
18. **Inter-institutional collaborative projects and associated grants received** : NIL
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:** NIL
20. **Research facility / centre with: International Recognition:**
- Center of Space Technology
 - Center for Climate Change Studies
 - Research centre of Sathyabama University
21. **Special research laboratories sponsored by / created by industry or corporate bodies:** NA

22. Publications:

- Number of papers published in peer reviewed journals (national / international) : 481
- Monographs : NIL
- Chapters in Books : Nil
- Edited Books : Nil
- Books with ISBN with details of publishers : 18
- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : Scopus – 292, WoS - 11
- Citation Index – range : 0 – 14 / 3.25
- SNIP : 0.03 – 2.304
- SJR : 0.126 – 1.519
- Impact Factor – range : 0.1 – 2.563 / 0.532
- h-index : 4

23. **Details of patents and income generated** : NA

24. **Areas of consultancy and income generated** : NA

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:** NIL

26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) Any other (please specify) :

S. No	Name of The Faculty	Name of the Journal (Editorial Board Members)
1	Dr.S.Ganesh	International journal on Information Sciences and computing, Sathyabama University, Chennai.
2	Dr.M.Nirmala	International Journal of Advances in Engineering Research -IRA Publications.
		International Journal of Research in Science and Technology –IRA Publications.
3	Dr.A.Amutha	International Association of Engineers. IAENG
		International Journal of Advances in Engineering Research -IRA Publications.
		International Journal of Research in Science and Technology –IRA Publications
4	Dr. R. Manoharan	Asian Journal of Mathematics and Computer Research
		British Journal of Mathematics and Computer Science
		Indian Journal of Mathematics

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):

Orientation Programme was conducted in July 2014 for the faculties of Science and Humanities by Dr. Bharati Rajan, Emeritus Professor (UGC), Loyola College, Chennai and Conjoint Professor, School of Electrical Engineering and computer Science, University of New Castle, Australia.

28. Student projects:

Projects by M.Phil Students (2015-16)

S. No.	Reg. No.	Name of student	Title of Dissertation	Name of Supervisor
1	3596001	M.Alex Arokiaraj	Multi Criteria decision & Fuzzy Multi Criteria decision making	Dr. Kavitha Gladson
2	3596002	M.Kamatchi	Stokes Flow of Viscous Fluid	Dr.S.Ganesh

3	3596003	S.Prrashanthi	Mathematical Analysis Technique for Inventory systems	Mr.P.Muniappan
4	3596004	P.Punithavathy	A Study on Graph Labeling	Mr.K.Venkatakrishnan
5	3596005	G.Sai Kirthiga	Generating Linguistic Captchas	Mr.S.Vaithyasubramanian
6	3596006	R.Silambarasan	Numerical Study of Population growth using R-K's Method	Mrs.Prasanna Jayanthi
7	3596007	B.Vidhya	Ideal and Soft Ideal Topology	Dr.R.Manokaran

29. **Awards / recognitions received at the national and international level by:**

		National Level	International Level
Staff		-	--
Students	(Extra / Cocurricular)	-	-
	Sports	-	-

30. **Seminars/ Conferences/Workshops organized and the source of funding (National/International) with details of outstanding participants, if any**

Conducted National Workshops, International Workshop and National Conference with funding from CSIR.

1. Conducted a National Workshop on "Mathematical Aspects of Scientific Computing" (MAOSC – 2008) in April 2008 funded by CSIR.
2. Organized a National Workshop on "Applications of Logic" (NAWAL – 2009) in October 2009 funded by CSIR.
3. Conducted an International Workshop on "Mathematical and Computational Fluid Dynamics" (IWOMACFD – 2010) in December 2010 funded by CSIR.
4. Organized a National Conference on "Mathematical Computational Modeling" (NCMCM - 2012) in June 2012 funded by CSIR.
5. Organized an International Conference on "Mathematical Sciences" (ICMS - 2014) in July 2014 funded by Indian Council of Medical Research (ICMR). Proceeding Published by Elsevier.
6. Organized one day workshop on "LATEX" in July 2014.
7. Organised two days Mathfest "GANITHUTSAV 2016" for Arts and Science College students on March 2016.

31. **Code of ethics for research followed by the departments:**

The University pursues a research ethos that promotes exceptional expertise as well as ethical responsibility in the quest for knowledge and the development, conservation and transfer of such knowledge.

32. **Student profile programme-wise :**

2015 – 2016 M.Phil Batch	
S. No.	Name of student
1	M.Alex Arokiaraj
2	M.Kamatchi
3	S.Prrashanthi
4	P.Punithavathy
5	G.Sai Kirthiga
6	R.Silambarasan
7	B.Vidhya

2016 – 2017 M.Phil Batch	
S. No.	Name of student
1	V.Vinitha
2	S.Fathima
3	M.Kathija
4	S.Mohana
5	T.Monika

2016 – 2018 M.Sc Batch	
S. No.	Name of student
1	P.Annai Priyanka
2	J.Jensi
3	Jesna Jose

33. **Diversity of students** : NIL
34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise** : NIL
35. **Student progression** : NIL
36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	NIL
from other universities within the State	100%
from universities from other States	NIL
from universities outside the country	NIL

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: 2015 – 2016**

Degree	No. of Candidates	
	On going	Completed
Ph.D	25	6

38. **Present details of departmental infrastructural facilities with regard to**

- a) Library : 330 Books.
- b) Internet facilities for staff and students : 05
- c) Total number of class rooms : 02
- d) Class rooms with ICT facility : NIL
- e) Students' laboratories : NIL
- f) Research laboratories : NIL

39. **List of doctoral, post-doctoral students and Research Associates:**

- a) from the host institution/university :15 (4 Years)
- b) from other institutions/universities : 08 (4 Years)

40. **Number of post graduate students getting financial assistance from the university: NA**

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:**
As per the industrial requirements and for those who would like to take up Teaching as their profession the PG courses namely M.Sc., & M.Phil were started and Board of Studies was conducted before framing up of syllabus. Also this exercise was to focus more on Research.
42. **Does the department obtain feedback from?**
- a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**
The Department utilizes the feedback for teaching and learning process from the Industrialists and Research experts for curriculum development, performance evaluation and faculty development.
- b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**
To enrich the standard of the Average and below Average student's performance, special classes and Aptitude classes have been conducted in different areas of Mathematics.
- c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**
Department utilize the feedback given by the alumni and employers on evaluating the quality of the syllabus according to the present need.
43. **List the distinguished alumni of the department (maximum 10):**

S. No.	Name of student
1	M.Alex Arokiaraj
2	M.Kamatchi
3	S.Prrashanthi
4	P.Punithavathy
5	G.Sai Kirthiga
6	R.Silambarasan
7	B.Vidhya

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts:

Special Lecture	2
Workshops	2
Seminars	-

45. List the teaching methods adopted by the faculty for different programmes:

- Class Room based learning
- Assignment
- Group Discussion/Seminar
- OHP/Power point presentation
- Mathematical Models
- Individual Attention given to the Below Average Students by Conducting Special classes

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- University Examination Result Analysis
- Students feedback
- Member of board of studies Opinion

47. Highlight the participation of students and faculty in extension activities:

- Aptitude training given for MOU signed Colleges.
- Mathematics Club activities.
- Support for Final Years Project Analysis.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Participation in Workshop and Publication and Conference
- Guest Lecture from IIT,NITS & BITS
- Encouraging students to Participate in National Level Math Competitions.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Awarded as **Category " A " University** by Ministry of Human Resource Development (MHRD),

Accredited by NAAC B ++,

Certified by ISO 9001:2008 by Netherlands

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- Creating basic Mathematical knowledge
- Creating applied knowledge on Mathematics
- Creating Aptitude skill development

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths:

- Offering different curriculum for different branches of Engineering.
- Aptitude training for Engineering students
- Club activities for improving the Mathematical skills
- Faculty Development Programme for the department faculty members.

Opportunities:

- Providing subsidiaries for paper presentation in other institutions
- Motivating the faculty members in publication and research award
- Offering Sabbatical leave for the higher studies
- Encouraging Faculty exchange programme with foreign universities
- Signing MOU with other universities for exchange of students

Challenges:

- Molding the students to cope up with the environment
- Motivating the Cross cultural diversity among the students

Weaknesses:

- Not having a Mathematics Lab

52. Future plans of the department.

- M.Sc. (Applied Mathematics)
- M. Sc (Operations Research)
- Certificate Programmes.
- Each faculty member should have a publication in Web of Science journals and funded projects.
- Setting Mathematical Lab

1. **Name of the Department** : DEPARTMENT OF PHYSICS
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university?**
School of Science and Humanities
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
Under Graduate Programme : Nil

Post Graduate Programme
M.Sc- Physics : one

Research Programme
Ph.D. : one
5. **Inter Disciplinary programmes and departments involved** : Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Nil
7. **Details of programmes discontinued, if any, with reasons** : Nil
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system**
Semester – Absolute Credit Based System

9. Participation of the department in the courses offered by other departments

Sl. No.	Department/ Branch	Service given to the Department
1	Physics of Materials	All the branches of I year B.E./B.Tech. Programme
2	Applied Physics	
3	Physics Lab – I	School of Computing, Electrical and Electronics & Bio and Chemical Engineering
4	Physics Lab - II	School of Bio and Chemical Engineering.
5	Engineering Electromagnetic and Electronic Circuits– I	ECE and ETC for the School of Electrical and Electronics respectively.
6	Fibre optics and Lasers for Bio Medical Applications	M. Tech., (Biotech) for School of Chemical and Bio Engineering

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate professors/Assistant professors/others)

Designation	Sanctioned	Filled
Professor	5	5
Associate professors	2	2
Assistant Professors	4	4
Others	--	--

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	Academic Experience	No. of Ph.D. students	
					Guided	Guiding
Dr.M.Sundareswari	M.Sc,M.Phil., MCA, Ph.D.,	Professor	Material Science	28 years	-	6
Dr.Joseph Arul Pragasam	M.Sc., MPhil., Ph.D.,	Professor	Crystal Growth	26 years	1	4
Dr.Helen Merina Albert	M.Sc., B.Ed., Ph.D.,	Professor	High Pressure studies	21 years	-	-
Dr.R.Sampath Kumar	M.Sc.,M.Phil.,Ph.D.,	Associate Professor	Materials Science	14 years	-	1

Name	Qualification	Designation	Specialization	Academic Experience	No. of Ph.D. students	
Dr.S.Ravichandran	M.Sc.,M.Phil.,Ph.D.,	Professor	Ultrasonics studies	22 years	-	2
Dr.C.Senthamil Selvi	M.Sc,M.Phil., Ph.D.,	Professor	Ultrasonics	15 years	-	-
Mrs.D.S.Jayalakshmi	M.Sc,M.Phil., (Ph.D.,)	Assistant Professor	Materials Science	8 years	-	-
Dr.Amirdha Sher Gill	M.Sc,M.Phil., Ph. D.,	Assistant Professor	Crystal Growth	10 years	-	-
Mrs.J.Anita Lett	M.Sc,M.Phil., (Ph.D.,)	Assistant Professor	Biomaterials, Composites	6 years	-	-
Ms.V.Shobana	M.Sc., M.Tech,	Assistant Professor	General Physics, Nanoscience	3 year	-	-
Dr.M.Xavier Suresh	M.Sc.,B.Ed., Ph.D.	Associate Professor	Biophysics & Bioinformatics	14 years	2	-

12. **List of senior visiting fellows, adjunct faculty, and emeritus professors** : Nil
13. **Percentage of classes taken by temporary faculty-programme –wise information** : Nil
14. **Program - wise the Staff Student ratio**

The Staff Student ratio of the department is 1:15 by considering the subjects handled by the faculty of other departments.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Support staff (technical)	4	4
Administrative staff	Nil	Nil

16. **Research thrust area as recognized by major funding agencies**

1. Condensed Matter Physics
2. Biomaterials Science
3. Polymer nano composite materials
4. Crystal Growth
5. Dielectri Materials
6. Ultrasonic Studies
7. Radiation Studies

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

S. No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Rs)	Duration
1	Dr. M. Sundareswari	Effect of ternary Addition on Ductility of Aerospace Materials - A Theoretical Approach	DRDO-ER&IPR	2013	11,49,429	2014-16
2	Dr. M. Sundareswari	Theoretical investigation on improving the hardness of novel superhard materials by doping	DST-SERB	2013	14, 51,558	2013-16
3	Dr. S. Ravichandran	Enhancement of mechanical properties of epoxy resin system thorough nanophase reinforcement	DRDO (CARS)	2012	9,31,000	2012-15
4	Dr. R.Sampath Kumar	Time Domain Dielectric Spectroscopy studies on the interaction of collagen with surfactants in aqueous solution	DST-SERC	2007	7,74,000	2007-09
Total					43,05,987	

18. **Inter-institutional collaborative projects and associated grants received**

- a) National collaboration - Nil
- b) International collaboration - Nil

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.** :

S.No	Name of Program Coordinator	Title of the Project	Funding Agency	Year of Sanctions	Amt. Sanctioned	Duration
1.	Dr. M. Sundareswari	FIST Program 2014	DST-FIST (Ref: SR-FST-PSI-193-2014)	2015	74,00,000	2015-2020

20. **Research facility / centre with**

- State recognition - Nil
- National recognition - 3
 - Centre for Nano science and Nanotechnology - IGCAR
 - Centre for Advanced Electronic Test Engineering - QMAX
 - Centre for Quality Assurance & Non Destructive Evaluation - IGCAR
- International recognition - Nil

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : NIL

22. **Publications:**

- Number of papers published in peer reviewed journals
(national / international) 221

- Number listed in International Database
(For e.g. Web of Science, Scopus) Scopus – 76 , WoS – 43
- Citation Index – range / average 1 – 52 / 10.67
- SNIP 0.03 – 1.613
- SJR 0.13 – 1.76
- Impact Factor – range / average 0.12 – 5.687 / 1.33
- h-index 11
- Monographs Nil
- Chapters in Books Nil
- Books Published 11
- Books with ISBN with details of publisher 3

ISSN 0370-0046 – Proceedings of Indian National Science Academy, Vol 79, No 3, September 2013, pp 311-496;

ISBN 978-81-922119-1-6, National Conference on Recent Advances in Materials and Technology –NCRAMAT, 6-7, January, 2012;

ISBN – 978-93-83409-01-3, International Conference on Recent Advances in Physics for Interdisciplinary Developments, 23-24, January, 2014

23. **Details of patents and income generated** : NIL .
24. **Areas of consultancy and income generated** : NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad

Name of the Staff	Country	Period	Place and purpose of visit
Dr.M.Sundareswari	South Africa	19 – 30 July 2010	African School on Electronic Structure Methods and Applications (ASESMA 2010)' at the African Institute of Mathematical Sciences, Cape Town
	Germany	12 -15 June, 2013	International Symposium on Recent Electronic-Structure Theories and Related Experiments at Max Planck Institute for Solid State Research, Stuttgart

26. Faculty serving in

Sl. No.	Name of the Staff	National committee	International committee	Editorial Boards	Others
1	Dr.M.Sundareswari	-	-	-	Reviewer: Journal of Alloys and Compounds; DAE SSPS research papers; HBNI Doctoral Thesis evaluator
2	Dr.S.Ravichandran	-	-	Journal of Basic and Applied Scientific Research	-

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S.No	Date	Name of the Program	Topic
1	15-12-2012	One day National level workshop	“R&D Proposals – Approach & Preparation” (RDPAP-2012)
2	11-01-2013	One day National level workshop	“R&D Proposals – Approach & Preparation”
3	22-07-2013	Faculty Seminar	“Scope of R&D in Renewable Energy”
4	15-03-2014	One day orientation programme	X-Ray Diffraction:- Histry and applications High Pressure Technics on XRD Physics Aspirants
5	24-11-2014 to 13-12-2014	SERB school in dept. of physics MS university of Baroda	DFT and beyond ; computational materials science and materials design
6	22-1-2015	One day orientation programme for U.G. Physics students	Non-Linear materials –Recent Tehnological applications Evolution of Light and Light based Technology Photonics On Band gap materials

7	April, 23-25, 2015	Workshop on Advances in Computational Materials Science (ACMS 2015)	Advances in Computational Materials Science
8	April, 27, 2015	NPTEL workshop in IITM	Topics in Theory of Atomic Collisions and Spectroscopy, Classical mechanics and atomic physics
9	2.9.2015-22.9.2015	DST-SERC SCHOOL	Single Crystalline Functional Materials & Their Applications
10	3-2-2016	One day orientation programme for U.G. Physics	Applications of Synchrotron Radiation
11	14-3-2016	Xth AMP IHS at IITM	Various topics on Atomic and Molecular Physics
12	April 7, 2016.	Guest Lecture	Corrosion resistance awareness

28. Student projects

Projects guided under the supervision of **Dr.S.Ravichandran**, Professor, Department of Physics, Sathyabama University

1. **Anderson**, Final year, (2011-12) Department of Mechanical Engineering, Sathyabama University

Title of Project: Synthesis and mechanical properties of nano Zinc Oxide in polyvinyl alcohol and polyvinyl pyrrolidone composite film.

2. **Franklin D Raja and U.Kalyan** (2012-13) Final year, Chemical Engineering students.

Title of Project: Synthesis and absorption characteristics of polymer capped zinc oxide nano particles doped Poly (vinyl alcohol) film.

3. Daniel Raj A , Balaji Visvanath P, (2014-15) Final Year , Mechanical Engineering Department,
Title of project: Mechanical and Thermal behavior of Fiber Reinforced Low-density polyethylene Composite materials,(2015-16)
 Sparsh Kishore and Syed daniyal Shahbazi, (2015-16), Final Year, Department of Chemical Engg.,

Title of project: Fabrication and characterization of fibre reinforced low density polyethylene composite doped with grapheme.

Projects by M.Sc., Physics Students (2013-15)

S. No.	Reg. No.	Name of student	Title of Project	Name of Supervisor
1	3359001	DHARANI. S	Synthesis, growth and characterization of NLO single crystal	Dr. Amirdha Sher Gill
2	3359002	MUTHAMIL SELVAN. S	Green synthesis and characterization of Metal Oxide nanoparticles for environmental applications	Dr. K. Vijai Anand
3	3359003	NARESH. K	Synthesis and Characterization of PMMA and PVDF thin film using solution casting method	Dr. C. Ramesh Kumar
4	3359004	PIO DEVA SAHAYA DAS JAI	Crystallization and characterization of novel non-linear optical crystals	Dr. Helen Merina Albert
5	3359005	SHARMILA. D.J	Preparation and characterization of dielectric polymer nanocomposites for embedded capacitor application	Dr. R. Sampath Kumar
6	3359006	SUGHAN HARRISH. R.R	Mechanical properties of CaNi_2Sb_2 compound using Band structure calculation.*	Dr. M. Sundareswari

*This work has been published in scopus indexed journal – Structural stability, electronic, mechanical and thermodynamical properties of CaNi_2P_2 and CaNi_2Sb_2 compounds by band structure calculation, Modern Physics Letters B 30(12):1650178 · May 2016.

Projects by M.Sc., Physics Students (2014-16)

S. No.	Reg. No.	Name of student	Title of Project	Name of Supervisor
1	3459001	Aswathy.J	Preparation and characterization of dielectric polymer nano composites for capacitor applications	Dr.R.Sampath Kumar
2	3459002	Binod Dhakal	First principles study of spintronic material Ir ₂ Val*	Dr.M.Sundareswari
3	3459003	Cranal Lizzy	Density functional theory on Iron Based 1 2 2 compounds*	Dr.D.Jayalakshmi
4	3459004	Kumaresan.M	Green synthesis and characterization of Zirconia nano structures for Bio medical applications	Dr.K.Vijay Anand
5	3459005	Rajathi	Growth and characterization of urea thiouear crystals for NLO application	Dr.P.Mallika
6	3459006	Sourav		Dr.G.Padmanaban

* These work has been presented in 11th In-house Symposium conducted by IITM

29. **Awards / recognitions received at the national and international level by Faculty/ Doctoral / post doctoral fellows/ Students**

		National Level	International Level
Staff			-
Students	(Extra / Cocurricular)		
	Sports		

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants*
1.	National conference of Recent Advances in Materials and Technology-2012 (NCRAMAT)	Jan.6-7, 2012	CSIR, DRDO & DST	Dr.Bhaganvanarayana, NPL, Delhi, Dr.Arthanareeswaran, NIT Trichy, Dr.Jaffer Ali, Pondicherry University Dr.K.Porchezhiyan, Pondicherry University Dr.D.Arivuoli, Anna University, Dr.N.Vijayan, NPL Dr.R.Jayavel, Anna University Dr.V.R.K.Murthy, IITM Dr.V.N. Mani, Centre for Materials for Electronics Technology, Hyderabad Dr.T.R. Ravindran, IGCAR, Dr.N.V. Chandrashekar, IGCAR, Dr.M.S.Suresh kumar, Saveetha University

S. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants*
2.	Preconference Meet with Nobel Laureate, Prof. Walter Kohn	5&6 December 2013	DST	Nobel Laureate, Prof. Walter Khon, <u>University of California, Santa Barbara</u> met Scientists from IGCAR and CLRI, Professors from IIT-M, Madras University and Anna University
3	International conference on “Recent Advances in Physics for Interdisciplinary Developments” in association with Nano science & Nano Technology (ICRAPID-2014)	23&24 January 2014	DST	Nobel Laureate, Prof.Douglas Osheroff, <u>Stanford University</u> . Dr.Mebarek Alouani, ULP,France. Prof.A.Jayaraman, Director,National atmospheric Research laboratory. Dr.Sushil Auluck, IIT,Kanpur. Prof.Dilip Kanhare, University of pune. Prof.Kalobaran Maiti,TIFR Prof.Sahu, IGCAR Prof.B.V.R.Tata, IGCAR Dr.Jaffer Ali, Pondicherry University Dr.Arthanareeswaran, NIT Trichy

S. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	outstanding participants*
5	One day orientation programme for U.G. Physics students	22-1-2015		Dr.P.C.Deshmukh, Professor, IITM Dr.B.V.R.Tata, Professor, Scientist Officer H, IGCAR Dr.K. Porsezian, Professor, Dept. Of Physics, Pondicherry University.
6	One day orientation programme for U.G. Physics	03-02-2016		Dr.P.CH.Sahu, Sr.Scientist (Retd.), IGCAR, Kalpakkam Dr.C.Vijayan, Professor,IITM,Chennai
7	Guest Lecture	07-04-2016		Dr.John Berchmann,Principal Scientist,CSIR,CECRI,Karaikudi

31. **Code of ethics for research followed by the departments;**

- Department gives high priority to research as one of the primary functions.
- Originality and novelty in research work and the researchers are expected to publish their work in Scopus indexed journals
- It pursues a research ethics that promotes excellence as well as ethical responsibility in their research besides guiding them in the creation, conservation and transfer of knowledge.

32. a. Student profile programme-wise:

Name of the Programme (refer to question 4)	Applications received	Selected	
		Male	Female
M. Sc. (Physics)	30	8	5
Ph.D.	9	3	5

b. University results

Name of the Programme	Pass Percentage (Nov. 2013)	Pass Percentage (Apr. 2014)	Pass Percentage (Apr. 2015)
M. Sc. (Physics)	50%	87%	100%

33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students From other countries
M. Sc. (Physics) 2013-2015	None	100	None	None
M. Sc. (Physics) 2014-2016	None	83.33	16.66	None
M. Sc. (Physics) 2016-2018	None	100	None	5%

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

Not Applicable (Ancillary Department)

35. **Student progression**

Not Applicable (Ancillary Department)

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	Nil
from other universities within the State	100%
from universities from other States	---
from universities outside the country	---

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

Degree	No. of Candidates	
	On going	Completed
M.Phil.	-	2 (two)
Ph.D	2(six)	13(eight)

38. Present details of departmental infrastructural facilities with regard to

a) Library

Sl. No.	Category	No. of Books	Price
1.	UG(B.E)	140	Rs.41,128
2.	PG(M.Sc. Physics)	32	Rs.9,699
3.	Reference Books	75	Nil
4.	Complimentary	138	Nil
Total		385	Rs.50,827

- b) Internet facilities for staff and students : 10 systems
 c) Total number of class rooms : 2 Nos
 d) Class rooms with ICT facility : Nil
 e) Students' laboratories : 2 Nos

S.No.	Name of the Laboratory	Cost of Equipment (in Lakhs)
1	Physics Lab I & II for all first year B.E./ B.Tech., Students	8,55,475
2	General Physics lab for I Year M.Sc., Students	

- f) Research Laboratories : DST-FIST PHYSICS LABORATORY

39. **List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university :15 (4 Years)
- b) from other institutions/universities : 08 (4 Years)

40. **Number of post graduate students getting financial assistance from the university. :** NIL

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- M.Sc., Physics syllabus was framed by eminent persons from various branches of Physics and materials science forming the members of 'board of study' belonging to various reputed organizations.
- Apart from regular subjects, extra-disciplinary subject papers like
 - Technical Writing for Scientists
 - MAT Lab, Characterization Lab
 - Multimedia and Web Designing Lab
 - Life and Employability Skills,
 - Advanced Electronic Test Labare included the syllabus in par with the present scientific scenario.
- To equip the students with the aptitude and reasoning test, on line training is given through intranet.
- Permission was sought to use the facilities from our International Research Centre to give major research exposure.

42. **Does the department obtain feedback from?**

a. **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

- HOD conducts meeting with staff members in every fortnight and the staff share their experience openly and clearly without any reservation.
- All deliberators are recorded as minutes of the meeting.

- Feedback may be related to teaching methods/techniques lab facilities/ assignment/ seminar, syllabus content.
- All received comments are discussed and corrections are implemented.

b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

- Comments are usually mixed with emotions.
- The department takes up the suggestions and analyze.
- The staffs concerned are informed to improve their delivery.

c. **alumni and employers on the programmes offered and how does the department utilize the feedback?**

Not Applicable (Ancillary Department)

43. **List the distinguished alumni of the department (maximum 10)**

Not Applicable (Ancillary Department)

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Special Lecture	8
Workshops	6
Seminars	4

45. **List the teaching methods adopted by the faculty for different programmes.**

- Chalk and talk method
- Question and answer session at the end of every lecture/ talk
- Summary provided at the end of the talk
- Interactive methods – group discussion

- Power point presentation – LCD projector
- Providing models
- Doing experiments
- Conducting seminars

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- Feedback from students
- Conducting regular class tests
- Syllabus revision
- Regular assignments
- Problem solving session

47. **Highlight the participation of students and faculty in extension activities.**

M.Sc., (physics 2013-2015) students attended the workshop conducted by jeppiaar engineering college entitled “science congeries” held during 28th July – 1st August 2014.

M.Sc., (physics 2013-2015) students attended the Seminar conducted by Department of Nuclear Physics, Madras University entitled “synthesis and characterization of single crystals” held on 5th December 2014.

48. **Give details of “beyond syllabus scholarly activities” of the department.**

- Students give presentation on innovative topics of applied sciences
- Interdisciplinary debates in class room
- Engaging the students in quiz and group discussion

49. **State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- Accredited by **NAAC** with **B++ grade**
- Declared as **Category “A” University** by the Task Force appointed by the Ministry of Human Resource Development (MHRD), Government of India
- Certified with ISO 9001:2008 by DNV, Netherlands.

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- Faculties are engaged in research work
- Being rational thinking the staff put their effort and churn of brilliant ideas in both teaching and research.
- Faculty development program, refresher course, orientation course to enrich with current knowledge.
- Science exhibition etc were arranged for students from local college and schools

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths:

- P.G. program as M.Sc., Physics
- Funded projects from DST and DRDO
- Faculties are actively involved as reviewers in national/international journals
- Staff from various fields of specialization.
- Supporting to handle students project

Weakness:

- All the faculties are expected to do consistent research work

Opportunities:

- New industrial tie up, M.Sc., program, New courses visiting abroad, collaborative projects, guiding students and motivating them

Challenges:

- International collaborative projects/fellowships

52. **Future plans of the department.**

- Interdisciplinary research work
- To do collaborative applied projects
- Science magazine
- Comparatively good strength in PG
- Networking global connections
- Identifying government funding agencies for lab infrastructural development

1. **Name of the Department** : Department of Chemistry
2. **Year of establishment** : 1988
3. **Is the Department part of a School/Faculty of the university?:** Faculty of the University / School of Science and Humanities
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt., etc.,)**
 - UG - NIL
 - PG - M.Sc. Chemistry
 - Ph. D Research
5. **Inter Disciplinary programmes and departments involved:** NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc. :** NIL
7. **Details of programmes discontinued, if any, with reasons:** NIL
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system:**
 - ◆ Semester / Absolute credit based system

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the subject	Service given to the department
1	Engineering chemistry	Common to all UG Branches of Engineering and Technology (I Semester)
2	Chemistry of Electronic Materials	Common to UG Branches – ECE, EEE,ETCE, EIE, E&C, CSE and IT (II Semester)
3	Chemistry of Industrial Materials	Common to UG Branches – MECH., MECH. & PROD., CIVIL, CHEM., AERO., and AUTO., (II Semester)
4	Applied Bio Organic Chemistry	Common to UG Branches – BIOTECH., BIOMED., AND BIOINFO. (II Semester)
5	Materials Technology	Common to UG Branches – MECH. and MECH & PROD. (V Semester)
6	Energy Engineering	UG – CHEM. ENGG. (VI Semester)
7	Advanced Nanomaterials Characterization Techniques	M. Tech. – NANOTECHNOLOGY (III Semester)
8	Introduction to Quantum Chemistry	UG – BIOINFO. (III Semester)

10. Number of teaching posts sanctioned, filled and actual (Professors / Associate professors / Assistant professors / others)

Designation	Sanctioned	Filled
Professor	2	2
Associate Professors	1	1
Assistant Professors	7	7
Others	-	-

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance:

Sl. No.	Name	Qualification	Designation	Specialization	No. of years of experience	No of PhD/ M. Phil students guided for the last 4 years	
						Guiding	Guided
1	Dr. A. Sheik Mideen	M.Sc., Ph.D	Professor & Head	Corrosion Science; Advanced Batteries	23 Years 2 Months	Ph. D: 1	Ph. D:2
2	Dr. A. Nageswara Rao	M.Sc., M.Phil.,Ph.D	Professor	Catalysis	31 Years 2 Months		Ph. D:3
3	Dr. V. Kavitha	M.Sc., M.Phil.,Ph.D	Assistant Professor	Environmental Organic Chemistry	11 Years 2 Months		
4	Dr. T. Krithiga	M.Sc., M.Phil.,Ph.D	Assistant Professor	Catalysis	10 Years 2 Months		
5	Dr. J. Karthikeyan	M.Sc., Ph.D	Assistant Professor	Inorganic and Bio Inorganic Chemistry	8 Years 4 Months	Ph. D: 1	Ph. D: 1
6	Dr. S. Supriya	M.Sc., Ph.D	Assistant Professor	Supramolecular Chemistry	8 Years 6 Months	Ph. D: 2	
7	Dr. S. Sunitha	M.Sc., M.Phil., Ph.D	Associate Professor	Catalysis	12 Years 1 Month		

S.No.	Name	Qualification	Designation	Specialization	No. of years of experience	No of PhD/ M. Phil students guided for the last 4 years	
						Guiding	Guiding
8	Mrs. Janet Sabina	M.Sc., M. Phil.,	Assistant Professor	Inorganic and Bio organic Chemistry	6 Years 8 Month		
9	Dr. M. Kannan	M.Sc., Ph. D	Assistant Professor	Polymer Science	6 Years 6 Months		
10	Dr. K. Chennakesavalu	M.Sc., M.Phil., Ph. D	Assistant Professor	Supramolecular Chemistry; Nanoscience	4 Years 3 Months		

12. **List of senior visiting fellows, adjunct faculty, emeritus professors:**

1. Dr. Atmanand, Director, NIOT, Chennai
2. Prof. S. Baskaran, IIT-Madras
3. Dr. Aruna Dhathathreyan, CLRI, Chennai
4. Prof. Puspendu Kumar Das, IISC., Bangalore
5. Prof. B. Viswanathan, IIT-Madras
6. Dr. S. Sriman Narayanan, University of Madras
7. Dr. R. Karvembu, NIT, Trichy
8. Dr. G. Sekaran, CLRI, Chennai
9. Dr. Anabarasam, IIT, Madras
10. Prof. Vasudeva Rao, Former Director, IGCAR
11. Dr. Ramesh, IBAT, Chennai
12. Dr. Venkatesah, IGCAR

13. **Percentage of classes taken by temporary faculty-programme –wise information** : NIL

14. **Programme-wise Student Teacher ratio** :

The staff student ratio of the department is 1:15 by considering the subjects handled by the faculty of other departments.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Designation	Sanctioned	Filled
Technical Staff	3	3

16. **Research thrust areas as recognized by major funding agencies:**

Thrust Areas	Name of Funding Agency
Electro chemical science	VSSC, ISRO, Thiruvananthapuram; IGCAR, Kalpakkam
Catalysis	IGCAR, Kalpakkam
Inorganic and Bio Inorganic Chemistry	CSIR, New Delhi
Supramolecular Chemistry; Nanoscience	CVRDE-DRDO
Polymer Science	
Environmental Organic Chemistry	

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

Sl. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr. K. Chennakesavalu	Development of polymer nanocomposites for EMI shielding	CVRDE, Avadi, DRDO	2016	Rs.19.69 Lakhs	2 years
2	Dr. J. Karthikeyan	Synthesis of Non-platinum based anticancer drug	Council of Scientific and Industrial Research- CSIR, New Delhi	2012	Rs.16.57 Lakhs	3 years
3	Dr. S. Lathasree	Photocatalytic degradation of n-butanol	Indira Gandhi Centre for Atomic Research, Kalpakkam	2008	Rs.6.0 Lakhs	2 years
4	Dr. T. Alamelu	Synthesis and Electrical resistivity studies on Filled Skutterudites	Vikram Sarabhai Space Research Centre, ISRO, Thiruvananthapuram	2004	Rs.3.75 Lakhs	1 year
5	Dr. T. Alamelu	Synthesis and Electrical resistivity studies on Filled Skutterudites	DST, New Delhi	2005	Rs.10.02 Lakhs	3 years
6	Dr. A. Sheik Mideen	Corrosion behavior of aluminium alloy 2219 in different media under different conditions	Vikram Sarabhai Space Research Centre, ISRO, Thiruvananthapuram	2004	Rs.4.36 Lakhs	2 years
Total					Rs. 60.39 Lakhs	

18. Inter-institutional collaborative projects and associated grants received

- a) National collaboration : NIL
 b) International collaboration: NIL

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sl. No.	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned	Duration
1	Dr. K. Chennakesavalu	Development of polymer nanocomposites for EMI shielding	CVRDE, Avadi, DRDO	2016	Rs.19.69 Lakhs	2 years
2	Dr. J. Karthikeyan	Synthesis of Non-platinum based anticancer drug	Council of Scientific and Industrial Research-CSIR, New Delhi	2012	Rs.14.22 Lakhs	3 years
3	Dr. S. Lathasree	Photocatalytic degradation of n-butanol	Indira Gandhi Centre for Atomic Research, Kalpakkam	2008	Rs.6.0 Lakhs	2 years
4	Dr. T. Alamelu	Synthesis and Electrical resistivity studies on Filled Skutterudites	Vikram Sarabhai Space Research Centre, ISRO, Thiruvananthapuram	2004	Rs.3.75 Lakhs	1 year
5	Dr. T. Alamelu	Synthesis and Electrical resistivity studies on Filled Skutterudites	DST, New Delhi	2005	Rs.10.02 Lakhs	3 years

6	Dr. A. Sheik Mideen	Corrosion behavior of aluminium alloy 2219 in different media under different conditions	Vikram Sarabhai Space Research Centre, ISRO, Thiruvananthapuram	2004	Rs.4.36 Lakhs	2 years
					Total Rs. 60.39 Lakhs	

20. Research facility / centre with

- **State recognition:** NIL
- **National recognition:**
Centre for Nanoscience and Nanotechnology (In association with Indira Gandhi Centre for Atomic Research, Kalpakkam)
- **International recognition:** Nil

21. Special research laboratories sponsored by / created by industry or corporate bodies

S. No.	* Name of the Equipment	Agency Sponsored / Industry
1	AC power supply 0-150V, 10 A	IGCAR-Kalpakkam
2	Mechanical Polishing Machine Single Disc-Grinder polisher	IGCAR-Kalpakkam
3	Photocatalytic reactor	IGCAR-Kalpakkam
4	Tubular furnace	DST-New Delhi

22. Publications:

Number of papers published in peer reviewed journals (national / international)	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.)
140	81

- Monographs : Nil
- Chapters in Books: Nil
- Edited Books :07
- Books with ISBN with details of publishers: Nil
- Scopus : 47 WOS : 34
- Citation Index – range / average: 1 – 158 / 5.46
- SNIP: 0.15 – 2.45
- SJR: 0.71 – 2.4
- Impact Factor – range / average: 0.03 – 8. 26 / 1.20
- h-index: 7

23. Details of patents and income generated : NIL

24. Areas of consultancy and income generated : NIL

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad:

Sl. No.	Name of Faculty	Name of the Institute	Duration	Sponsored by	Remarks
1	Dr.M.Kannan	Uniuersity of Madras, taramani campus	56 days	Indian academy of science, Bangalore	Summer fellowship
2	Dr.J.Karthikeyan	IIT, Bombay	56 dyas	Indian academy of science, Bangalore	Summer fellowship
3	Dr. K. Chennakesavalu	Uniuersity of Madras, taramani campus	30 days	UGC Sponsored	UGC FDP

26. Faculty serving in a) National committees b) International committees c) Editorial Boards

Name of Faculty	National committees / International committees / Editorial Boards	Position
Dr. A. Sheik Mideen	BHAVINI, Kalpakkam	Member in Scientific Assistant Recruitment Board
	Madurai Kamaraj University, Madurai	Ph. D Thesis Evaluator
Dr. K. Chennakesavalu	Mediterranean Journal of Chemistry	Editorial Board Member
	National Journal on Chembiosis (ISSN 0975-7317)	Editorial Board Member

d) Any other (please specify)

Name of Faculty	National committees / International committees / Editorial Boards	Position
Dr. S. Lathasree	1. Journal of applied catalysis 2. Journal of molecular catalysis, Journal of hazardous materials	Reviewer
Dr. A. Sheik Mideen	Environmental monitoring and assessment	Reviewer
Dr. A. Nageswara Rao	1. Journal of hazardous materials 2. Catalysis communications	Reviewer
Dr. K. Chennakesavulu	1. Thermochemica Acta 2. Journal of Thermal Analysis and Calorimetry	Reviewer
Dr. J. Karthikeyan	1. Indian Journal of Chemistry A 2. Indian Journal of Chemical Technology 3. Proceedings of Indian National Academy of science 4. Environmental monitoring and assessment 5. Journal of molecular catalysis 6. Journal of Iranian chemical society	Reviewer

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S. No.	Date	Type of the Program	Topic
1	Dr. K. Chennakesavalu	UGC sponsored FDP	
2	4 th Jan 2014	Workshop	Workshop on Art of Investing, organized by Sathyabama University, Chennai
3	2 nd July 2013	Orientation Programme	Faculty Orientation Programme organized by Sathyabama University, Chennai

4	24-26 th July 2013	Conference	International conference on Advanced Nanomaterials & Emerging Engineering Technologies (ICANMEET-2013), organized by Sathyabama University, Chennai
5	17 th Feb 2011	Workshop	Value @ Amirta's workshop on virtual labs in physics/chemistry organized by Amrita School of Engineering, Coimbatore
6	7 th June 2011	Seminar	International seminar on waste management, organized by Sathyabama University, Chennai
7	22 nd Mach 2011	Workshop	Workshop on recent trends in Modern Chemistry , organized by Anna university, Chennai
8	20-21 st Jan. 2011	Workshop	Workshop on Current trends in chemical and bioengineering (CTCAB-2011), organized by Sathyabama University, Chennai
9	15–17 th Dec. 2011	Conference	International conference on Green Technology & Environmental Conservation (GTEC-2011), organized by Sathyabama University, Chennai

S. No.	Date	Type of the Program	Topic
10	6 th -7 th , Jan. 2011	Workshop	National work shop on Recent Trends in plastics engineering & Technology (RTPET-2011), organized by Anna University, Chennai
11	13 th August 2010	Workshop	National workshop on research problem formulation and output documentation, organized by Sathyabama University, Chennai
12	23 – 25 th July 2010	Conference	National conference on Trends in Renewable energy sources, Applications & Climate change (TRESAC-2010), organized by Sathyabama University, Chennai

13	25 th April 2010	Course	Course on Nano Science and Technology, organized by IIT Madras, Chennai
14	4-5 th Dec. 2009	Faculty Development Programme	Faculty Development Programme on Modern teaching methods and research in Engineering and Technology, organized by Sathyabama University, Chennai
15	14-18 th , Dec. 2009	Workshop	work shop on School on Mineral Biotechnology conducted, organized by Indian Institute of Science, Bangalore
16	28-29 th , May 2009	Short term course	Short term course on NMR Spectroscopy, organized by SAIF-IIT Madras, Chennai
17	12 th Nov. 2008	Workshop	Work shop on TGA-DTA & DSC, organized by SAIF-IIT Madras, Chennai

28. Student projects

- Percentage of students who have done in-house projects including inter- departmental projects:

Sl. No.	Name of the project	Name of the guide	Name of the students	Branch	Batch
1	Synthesis, characterization and application of iron nanoparticles	Dr.I.Prabha	Ms.Kareti Mounika Ms.Risa Geogoi	Chemical Engineering	2013-2017
2	Production of metal doped activated carbon from waste	Dr.T.Krithiga	Mr.Anuragkumargupta Mr.Md.Danish Nayeem	Chemical Engineering	2013-2017

3	Study of the efficiency of oxidizing agents in effluent treatment process	Dr.S.Supriya	Mr.B.Jeyanth Ashwin	Chemical Engineering	2013-2017
4	Study of adsorbed metal complexes in the dye degradation process using ZnO nano photocatalyst	Dr.S.Supriya	Mr.Debrate Pal Ms.Madhumita Das	Chemical Engineering	2012-2016
5	Production of graphene oxide from food waste	Dr.T.Krithiga	Mr.Amand Kumar Sharma Mr.Tanmoy Das	Chemical Engineering	2012-2016
6	Removal of hexavalent chromium from wastewater using conchshell	Dr.V.Kavitha	Ms.C.Sangeetha	Chemical Engineering	2012-2016
7	Photocatalytic degradation studies on organic textile dyes using Ni doped ZnO/Carbon Nanocomposite	Mrs. S. Sunitha	Mr.Rahul Lokanathan Mr.Srintah Bhuvanapalli	Chemical Engineering	2012-2016
8	Visible light mediated photo-catalytic degradation of textile dyes by using Fe doped ZnO/C nanocomposite	Mrs. S. Sunitha	Mr.Shailesh Kumar Mr.Siddharth Gupta	Chemical Engineering	2012-2016

Sl. No.	Name of the project	Name of the guide	Name of the students	Branch	Batch
9	Adsorption of heavy metals using magnetic adsorbent	Mrs. S. Sunitha	Mr.Avula Venkatram Mr.Kuchipudi Punithsai	Chemical Engineering	2011-2015
10	Visible light assisted photocatalytic degradation of organic dyes using nanocatalyst	Mrs. S. Sunitha	Mr. Nitin Viji Jacob Mr. Mohammed Arshad	Chemical Engineering	2009-2013
11	Extraction of calcium from RO rejecter	Dr. S. Lathasree	Ms. Presila John and Ms. Nimmy George	Chemical Engineering	2010-2014
12	Green synthesis of quinoline	Dr.V.Kavitha	Mr.Karthik	M.Sc.	2015-2017
13	Protection of bamboo by CNS	Dr.K.Chennakesavulu	Ms.Jothilakshmi	M.Sc.	2015-2017
14	Nanodots synthesis from natural sources	Dr.M.Kannan	Mr.Jeyakanth	M.Sc.	2015-2017
15	Synstthesis of Inorganic complex	Dr.J.Karthikeyan	Ms.Kasthuri	M.Sc.	2015-2017

- Percentage of students doing projects in collaboration with other universities/industry / institute: NIL

29. Awards / recognitions received at the national and international level by:

		National Level	International Level
Staff		-	-
Students	(Extra / Cocurricular)	-	-
	Sports	-	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

Sl. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	Outstanding Participants*
1	New Vistas and Challenges in Chemistry (NEVACC-2013)	23 rd to 25 th January, 2013	DST (SERB), New Delhi	1. Dr.Atmanand, Director, NIOT, Chennai 2. Prof. S. Baskaran, IIT-Madras 3. Dr. Aruna Dhathathreyan, CLRI, Chennai 4. Prof. Puspendu Kumar Das, IISc., Bangalore 5. Prof. B. Viswanathan, IIT-Madras 6. Dr. S. Sriman Narayanan, University of Madras 7. Dr. R. Karvembu, NIT, Trichy 8. Dr. G. Sekaran, CLRI, Chennai

2	Orientation Programme on Instrumental Methods of Analysis" (OPIMA-2014)	14 th March, 2014	Sathyabama University	Dr.Swarna Prabhakar, Deputy Director, NML-CSIR, Chennai
3	Orientation Programme on Instrumental Methods of Analysis" (OPIMA-2015)	28 th January, 2015	Sathyabama University	
4	Orientation Programme on Computational chemistry	20 th February, 2016	Sathyabama University	

Sl. No.	Name of Seminars/ Conferences/Workshops organised	Date	Funding Agency	Outstanding Participants*
5	Workshop on Applications of Radioactivity (WAR-2016) [In association with The Indian Association of Nuclear Chemists and Allied Scientists (IANCAS), IGCAR, Kalpakkam]	11 th ,12 th July, 2016	Sathyabama University	Dr. P.R. Vasudeva Rao, Dr. G.V.S. Ashok Kumar, Dr. K.A. Venkatesan, Dr. R Kumaresan. IGCAR, KALPAKKAM
6	Workshop on applications of Thin layer chromatography (WAT-2016)	25 th July, 2016	Sathyabama University	Dr.Anbarasan, IIT, Madras Dr.Ramesh, IBAT, Tambaram Dr.Mohan, Scientist, Nicolas

31. Code of ethics for research followed by the departments:

- While applying sponsored research projects, publications and in Ph.D. thesis preparation the department follows the guidelines of code and ethics prescribed by National and International agencies.

32. Student profile programme-wise:

Name of the Programme (refer to question 4)	Applications received	Selected	
		Male	Female
Ph. D	20	5	5
M.Sc(2015-2016)	4	2	2
M.Sc(2016-2017)	4	0	4

33. **Diversity of students** : All the PG students are from within the state

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise** : NA

35. **Student progression** : NA

36. **Diversity of staff**

Percentage of faculty who are graduates	
of the same university	Nil
from other universities within the State	86.7%
from universities from other States	13.3%
from universities outside the country	Nil

37. Number of faculty who were awarded M. Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: 02

38. Present details of departmental infrastructural facilities with regard to

a) Library

Number of Books		Cost
Number of Text Books	Number of Reference Books	
53	NIL	Rs.13,538

b) Department laboratories

Sl. No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	UG/PG Chemistry Lab	14,000	Rs. 5,52,730

39. List of doctoral, post-doctoral students and Research Associates :

a) from the host institution/university :02 (4 Years)

b) from other institutions/universities : 09 (4 Years)

40. Number of post graduate students getting financial assistance from the university: NIL

41. Was any need assessment exercise undertaken before the development of new programme (s)? If so, highlight the methodology. NIL

42. Does the department obtain feedback from:

a) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

- Yes. Before curriculum revision the faculty is actively involved in the discussion to bring out the inclusion of emerging trends and scientific advancements in chemistry so that the students can acquire basic knowledge to face the challenges in their technical programmes.

b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

- Yes. The inputs from the student feedback are utilized to instruct the staff about their drawbacks so that they can effectively deliver their lecture.

c) Alumni and employers on the programmes offered and how does the department utilize the feedback? : NIL

43. List the distinguished alumni of the department (maximum 10) : NIL

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Workshops	3
Seminars	-

45. List the teaching methods adopted by the faculty for different programmes.

Name of Teaching Methods Adopted by the Faculty	Name of Programme
Smart Class Rooms	For Guest lecture; Faculty Development Programme
Models	Lecture Class

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

To achieve above 85% results in University Examinations and to meet this goal, the periodical assessment tests will be carried out. On the basis of results obtained, the weak students will be identified and they will be given a special coaching.

47. **Highlight the participation of students and faculty in extension activities.**

Sl. No.	Name of the students/Staff	Date of visit/ Duration	Name of the Industry / Research Institute	Reason for visit
1	Dr.J.Karthikeyan		IIT, Bombay	Summer fellowship
2	Dr.M.Kannan	May, 2016	Madras University	Summer fellowship
3	P G students 2015-2017 Batch	8 th October, 2015	Orchid Pharmaceuticals	Industrial visit
4	Ms.E.Jothilakshmi	8 th to 14 th June, 2016	PAR Active Technologies Pvt. Ltd. Alathur.	Industrial Inplant Training
5	Mr.J.Jayakanth	8 th to 14 th June, 2016	PAR Active Technologies Pvt. Ltd. Alathur.	Industrial Inplant Training

48. **Give details of “beyond syllabus scholarly activities” of the department.**

Conducting the programmes like Sathyabama – Role of Science and Humanities in Technological Innovations (SHRISTI) to bring out students innovative ideas in the form of paper presentation, developing new models.

49. **State whether the programme / department is accredited/ graded by other agencies? If yes, give details.**

- Department of Mechanical Engineering, Department of Electronics and Communications Engineering, Department of Master of Business Administration, Department of Computer Science Engineering and Department of Instrumentation and Control Engineering are accredited by NBA with A grade.
- The University is Accredited by NAAC with B++ grade
- Declared as A category University by the task force appointed by MHRD
- Certified as ISO 9001:2008 by DNV, Netherlands

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- Faculty members are actively involved in guiding the UG and PG students for their project works.
- Faculty members of the department are actively involved in interdisciplinary research to update the current scenario.
- The department organized and conducted national seminars and workshops to exchange their views and interact with the experts in various specialized areas.
- The department organized training sessions for PG students (M.Sc.Chemistry) to learn about sophisticated instruments like UV, FTIR, GCMS, SEM, XRD, AFM etc. at International Research Centre.
- The department organized training sessions for PG students (M.Sc.Chemistry) to learn about NMR at SAIF-IIT Madras, Chennai.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

a) Major Strengths

- 85% of staff members are doctorates from reputed institutes like IIT, NIT, CECRI, NML, Madras University and Anna University.
- Publications in refereed and reputed international journal like CSIR-NISCAIR, RSC, ELSEVIER, SPRINGER, TAYLOR AND FRANCIS with high impact factor and indexed in web of science and scopus.
- Sponsored projects from government agencies like DST-SERB, ISRO-VSSC, CSIR, DRDO
- Editorial Board Member and reviewers in Refereed Journals
- Fund generation through projects, conferences and workshops.

b) Weaknesses

- Lack of Patents
- Lack of full time research scholars

c) Opportunities and Challenges (SWOC) of the department

- To increase the citation index of research papers and to file patents through quality research.
- To get more funded projects in interdisciplinary research areas.
- To organize guest lectures from reputed leading industrial and academic experts in the thrust areas.

52. Future plans of the department.

- PG students will be utilized as full time research scholars by the faculty members for carrying out intensive research in their thrust areas.
- To increase the number of publications from PG students.
- To increase the number of funded projects.
- To file the patents

- Name of the department** : VISUAL COMMUNICATION
2. **Year of establishment** : 2003
3. **Is the Department part of a School / Faculty of the University?**
School of Science & Humanities
4. **Name of Courses / programmes offered**
- UG Course**
B.Sc VISUAL COMMUNICATION
- PG Course**
M.Sc VISUAL COMMUNICATION
- Ph. D. Programme**
Doctor of Philosophy
5. **Inter Disciplinary programmes and departments involved** : yes
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Yes
7. **Details of programmes discontinued, if any, with reasons** : Nil
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system** :
Semester system / absolute credit based system

9. Participation of the department in the courses offered by other departments : Nil

10. Number of teaching posts sanctioned, filled and actual

	Sanctioned	Filled
Professor	Nil	Nil
Associate professors	Nil	Nil
Assistant Professors	09	09
Others (Technical staffs)	05	05

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name of the Faculty	Designation	Qualification	Experience			Specialization	Number of Ph.D students guiding for the last 4 years
				Teaching	Industry	Total		
1	Mrs. N. NAZINI	ASSISTANT PROFESSOR	M.Sc., M.Phil, (Ph.D)	11 Years 7 months	1 Year	12 Years 7 months	Multimedia/ Journalism	Nil

S.No	Name of the Faculty	Designation	Qualification	Experience			Specialization	Number of Ph.D students guiding for the last 4 years
				Teaching	Industry	Total		
2	Dr. S.JANET MARY	ASSISTANT PROFESSOR	M.Sc., M.Phil., Ph.D	7 years	1 year	8 years	Research	Nil
3	Mr.R. PUGALENDHI	ASSISTANT PROFESSOR	M.Sc., D.F.Tech.	7 years	4 years	11 years	Sound Recording, Engineering and Television Production	Nil
4	Mr. A.R.VIMAL RAJ	ASSISTANT PROFESSOR	M.Sc Viscom	6 years	5 years	11 years	Television production	Nil
5	Mr. N.RAJA	ASSISTANT PROFESSOR	M.Sc., M.Phil PGDPR	6 Years	5 Years	11 Years	Video Editing	Nil
6	Ms. M. SAMANDHA SMITH	ASSISTANT PROFESSOR	M.A., M.Phil.	6 Years	2 years	8 years	Communication Research & Journalism	Nil
7	Ms.DEBORAH RAJ	ASSISTANT PROFESSOR	B.Sc Viscom, M.A.	3 Years	2 Years	5 Years	Communication, Public Relations	Nil
8	Mr.SENTHIL KUMARAN	ASSITANT PROFESSOR	MCJ, M.Phil	7 yrs	5 yrs	12yrs	Multimedia/ film editing	Nil
9	Mr.EDWARD KENNEDY	ASSISTANT PROFESSOR	M.F.A	2yrs	12 yr	14yrs	Fine Arts / Set design	Nil

12. List of senior visiting fellows, adjunct faculty, and emeritus professors

Adjunct faculty	International Speaker	Visiting faculty
Nil	Dr.Van .D. Romero, Vice President, Research & Economics, Development ,New MexicoTech, USA.	Mr.Anant Albal (Senior Advocate, Supreme court, Bangalore)
		Mr. Vijaya Kumar (Creative consultant ,Kalaingar TV)
	Dr.Mahua Bhattacharya, Professor, Department of Information Technology, Indian Institute of Information Technology and Managament,Gwalior, Allahabad	Dr.Nivedhita, Reader, Dept. of Mass Communication, Pondicherry University
	Dr. Chen Tet Khuan (Kent) Asia Pacific University of Technology & Innovation (APU) Technology Park Malaysia	Mr. Kaviarasu, Loyolla College

13. Percentage of classes taken by temporary faculty – programme - wise information : NIL

14. **Programme- wise Student Teacher ratio**

By taking into account the subject handled by the faculty members of other departments into consideration, the teacher student ratio of the department is 1:15.

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Technical staffs	05	05

16. **Research thrust areas as recognized by major funding agencies** : NIL

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.** : NIL

18. **Inter institutional collaborative projects & associated grants received** : NIL
a) National collaboration b) International collaboration

19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

NIL

20. **Research facility / centre with** : NIL

21. **Special research laboratories sponsored by / created by industry or corporate bodies**

NIL

22. **Publications:**

Details	Faculty of Science & Humanities
Total number of papers published (National/International)	41
Total number listed in International database (Scopus& web of science)	Nil
Citation Index –range / Average	Nil
SNIP Range	Nil
SJR Range	Nil
Impact Factor- range/ average	Nil
h-index	Nil
Monographs	Nil
Chapters in Books	9
Books Edited	Nil
Books with ISBN with details of publisher	1

23. **Details of patents and income generated** : NIL
24. **Areas of consultancy and income generated** : NIL
25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:** Nil
26. **Faculty serving in**
 a) National committees b) International committees c) Editorial Boards d) Any other (please specify) : NIL
27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

S.NO.	NAME OF THE FACULTY	NAME OF THE ORGANISATION	DATES & DURATION	Workshops / faculty development programmes
1.	Ms.Nazini	Sathyabama University	13 th & 14 th September 2013	Research Techniques using SPSS Tools
		NITTTRC	19 th – 23 rd Nov 2012	Digital media Development for Education
		Anna University	1 st – 7 th December 2008	Graphics & Multimedia
		IIT Madras	June 7-14 2014	Screen writing workshop (Imaging cinema)
		SRM (CHIRON)	23 rd & 24 th October 2015	Script writing workshop
		Chintamani Computers Pvt ltd.	4 th & 5 th June 2016	Final Cut PRO X (Professional course)

2.	N.Raja	NITTTRC, Chennai	19 th – 23 rd Nov 2012	Digital media Development for Education
		Sathyabama University	7 th March 2013	Financial Literacy
		NITTTRC	August 30 th – sept 3 rd 2010	Scriptwriting and video production workshop
		Sathyabama University	13 th & 14 th September 2013	Research Techniques using SPSS Tools
		Sathyabama University	29 th November 2013	Big Data Analytic and Social Media Challenges
3.	Vimal Raj A.R.	Sathyabama University	7 th March 2013	Financial Literacy
4.	V.Nirandharan	Sathyabama University	7 th March 2013	Financial Literacy
5.	N.Arun	Sathyabama University	7 th March 2013	Financial Literacy
6.	M.Pugalendhi	Sathyabama University	7 th March 2013	Financial Literacy
		Sathyabama University	29 th November 2013	Workshop on Big Data Analytic and Social Media Challenges
7.	M.Samandha smith	Sathyabama University	7 th March 2013	Financial Literacy
		Sathyabama university	4 th & 5 th August, 2011	Art of writing
		NITTTRC	18 th March - 22 nd March 2013	Soft Skills
		Loyallo College	30 th & 31 st January 2015	Eteaching workshop for educators

8.	S. Janet Mary	NITTRC	18 th March - 22 nd March 2013	Soft Skills
		Sathyabama university	4 th & 5 th August, 2011	Art of writing
		Sathyabama University	13 th and 14 th Sept 2013	Research Analysis using SPSS Tools

28. **Student projects**

- Percentage of students who have done in-house projects including inter- departmental projects : Nil
- Percentage of students doing projects in collaboration with other universities/industry / institute : Nil

29. **Awards / recognitions received at the national and international level by**

		National Level	International Level
Staff		-	-
Students	(Extra / Cocurricular)	86	-
	Sports	2	1

30. **Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any. : NIL**31. **Code of ethics for research followed by the departments :**

As per the UGC Regulations and Guidelines in admitting and evaluation of PhD., are being followed.

32. **Student profile programme-wise:**

A) Profile

Name of the Programme	Application received	Selected	
		Male	Female
I Year UG	100	48	16
II Year UG	100	55	23
III Year UG	150	58	23

B) University result – April 2016 examination

Name of the Programme	Pass Percentage	
	Male	Female
I Year UG	58%	88%
II Year UG	81%	100%
III Year UG	72%	100%

33. Diversity of students

Name of the Programme	% of Students from the Same university	% of students from other universities within the State	% of students From universities outside the State	% of students From other countries
-	--	-	-	-

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. : NIL

35. Student progression

Student progression	Percentage against enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed (Campus selection)	40% - Batch (2005)
Other than campus recruitment	Batch 2008 – 2011 : 76%
	Batch 2009 -2012 : 100%
	Batch 2010 – 2013 : 75%
	Batch 2011 – 2014 : 60%
	Batch 2012 – 2015: 86%
	Batch 2013 – 2016: 84%

Entrepreneurs	Batch 2008 – 2011 :	12%
	Batch 2010 – 2013 :	50%
	Batch 2011– 2014 :	10%
	Batch 2012 – 2015 :	6%
	Batch 2013 – 2016 :	6%

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	-
from other universities within the State	100%
from universities from other States	-
from universities outside the country	-

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Number of faculty	Degree awarded	year
2	M.Phil.	2007-2008
1	Ph.D	2015

38. Present details of departmental infrastructural facilities with regard to

a) Library

No. Of Books	No. Of Text Books	No. Of References	Cost Of All The Books	No.of Journals,
374	160	72	Rs. 3,32,082	Nil

b) Internet facilities for staff and students : Yes

c) Total number of class rooms : 03

d) Class rooms with ICT facility : Nil

e) Students' laboratories : 04

S.No	Name of the Laboratory	Area in Square Feet	Cost of Equipment
1	Television Production Lab & Photography lab	2400 SQ FT	Rs.10,34,029
2	Sound Studio	410 SQ FT	Rs. 2,33,000
3	Editing studio	410 SQ FT	Rs.8,73,935
4	Multimedia Lab	1000 SQ FT	Rs.2,00,000

f) Research laboratories : NIL

39. **List of doctoral, post-doctoral students and Research Associates : Nil**

40. **Number of post graduate students getting financial assistance from the university: Nil**

41. **Was any need assessment exercise undertaken before the development of new Programme :**

Dept of Visual Communication UG Programme aims to provide Industry oriented curriculum for the students since 2003 we got feedback from students & media industry that post graduate is Basic requiremnts for any job in the Print & Electronic Media .After considering the feedback we analyse and implemented M.Sc viscom and certificate course to cater the needs of the present Media industry. In year 2014 we conducted Board of studies and panel members are from Media industry and Reputed Institutions took at most care in framing the syllabus. Some of subjects were unique practical & research oriented.

42. **Does the department obtain feedback from**

a. **faculty on curriculum as well as teaching-learning-evaluation :** Yes

b. **students on staff, curriculum and teaching-learning-evaluation :** Yes

- Parents are frequently reported about their wards performance in the classes and in the examinations. In case of necessity parents are requested to meet the respective counselors, to know about their ward's activities in the university.

c. **alumni and employers on the programmes offered :** Yes

43. List the distinguished alumni of the department (maximum 10)

S.No	Name	Students Batch	Position
1.	Mr.Atlee	2005 - 2008	Film Director – (Raja Rani)
2.	Mr.Praveen Padmanaban	2004 - 2007	Producer (PictureMakers)
3.	Ms.Preethi Nagaraj	2004 - 2007	Web Practice -NewZealand, Web Designer
4.	Mr.Jeffery	2004 - 2007	Lowé Lintas, Visualizer
5.	Mr.N.Rajesh kumar	2005 - 2008	Cinematographer
6.	Ms.Shreesa Reddy	2005 - 2008	Headlines today- News Reporter
7.	Ms.Nancy shaila	2007 - 2010	RJ, Radio city
8.	Mr.Dharshan	2008 - 2011	Programme Producer, ZEE Tamil
9.	Mr.Rajesh Kannan	2005 -2008	Producer, PudiyaThalamurai channel
10.	Mr. Madhusudhanan	2010 – 2013	News Reporter, Times Now
11.	Mr.Vetri	2010 - 2013	Photojournalist, Ministry of Information and broadcasting

S.No	Name	Students Batch	Position
12.	Mr.Sujin	2011 - 2014	Acting
13.	Mr.Arun Sunai Kani	2011 - 2014	Green Horse Production
14.	Ms.Varsha	2011 - 2014	Green Horse Production
15.	Mr.Khishore	2011 -2014	Editor
16.	Mr. Sarathi	2011 -2014	Asst Cameraman
17.	Mr.Prasanth	2011-2014	Graphic Designer
18.	Mr.Jijendran	2012 - 2015	Asst .Film Editor
19.	Mr.Thejus	2012-2015	Asst .Film Editor
20.	Mr.Thamarai Selvan	2012-2015	News Producer (NEW 7 channel)
21.	Mr.Haridas	2012-2015	Transmitter Controller (THANTHI Channel)
22.	Mr.Ebenezer	2012-2015	Backend Support technical (SUTHERLAND)
23.	Mr.Madan Thapa	2013 - 2016	Stray videos (Director)

44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Special Lecture	27
Workshops	11
Seminars	10

45. List the teaching methods adopted by the faculty for different programmes.

- Using Visual aids
- Seminar presentation by students for given topics
- Practical approach by Visiting to the Press, TV channel, Radio ,Film Production

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- The goal and objectives are set at the beginning of each semester. The objective of the department is reviewed every month and at the end of the semester which is updated in the review matrix.
- The parameters in the review matrix includes pass percentage of each batch, no of doctoral, the percentage of the students secured first class in their final examination, the review of labs, number of industrial visits and guest lecturers arranged for the student, feedback taken from the student about curriculum and infrastructure, articles which are published in conferences and journals by the staff members etc. The data documented are reviewed once in a month and necessary actions are initiated in order to achieve the set objectives.
- Exposure of students to industries, through Inplant Training and Industrial Visit.
- Getting a practical hand on experience through workshop & Seminars
- Developing leadership qualities by organizing Media Seminar - Legend (every year)
- Our Department students are part of our University Volleyball.
- Students are involved in Community development Cell Activities
- Going for Internships to Media industry for practical knowledge.
- Assessment and Written exams

47. Highlight the participation of students and faculty in extension activities.

- Students won first place in Hindustan University National film festival for the short film “ EN MEL VILUNTHA MALAI THULI” and also won third place in Tamil Nadu Short Film Association (TNSA)
- Students won best script writer award for the short film “SECOND CHANCE” in the “GATEWAY AWARD '06”
- Student won first place in photography in WCC for the topic “city life” by the student of batch 2005
- Students won first place for best PSA (SHUT UP) in Loyola College , “RELIVE AWARDS '08” by second year students of the department.(batch 2007)
- Students won first place for best PSA(SHUT UP) in Asan Memorial College , “ASAN VIDEO AWARDS '08”by the Students of the department (batch 2007)
- Students won first place for best short film in Appollo tyres, “ Qfest 13” by the students batch 2012
- Students Won Second place for best short film Appollo tyre, “Qfest 14” by the Students batch 2012
- Student won second place for best graphics design ,society for animation ,Agafa 2014,by the student batch 2012
- Students won First place in Public service Announcement , Asan Memorial college,“ASAN VIDEO AWARD '15’ by the students of batch 2013
- Student recieved ALUMNI AWARD of 2015, in the category of sports.
- Students received Outstanding EXCELLENCE AWARD in field of Photography & Dubbing .

48. **Give details of “beyond syllabus scholarly activities” of the department.**

- Beyond curriculum, activities such as Industrial Visit, Guest Lecturer, in-plant training, project development, and Media Seminars, Film Festivals, Educational Tour for Photography and Documentary are organized by the department.
- Students are motivated to participate in the various film festival / photography/ designing /painting competition organized in various Universities / Colleges / Organizations.

49. **State whether the programme / Department is accredited / graded by other agencies:**

- Accredited by NAAC
- Certified by ISO 9001: 2008 DNV Netherland
- Declared as category “A” University by (Task force Appointed by Ministry of Human Resource Development, MHRD, Govt.of India)

50. **Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- Students are taught for making reality shows using chromo key, short films, animation films and new creative techniques in photography by the Staff Members.

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Strengths

- Staffs have presented research papers in international conferences held at various institutions
- Staffs have published research papers in diversified fields in various reputed international journals.
- Well equipped laboratory & Library with collection of 374 books utilized by students
- Many students have participated and won the prizes in the sports events conducted by various universities and colleges.
- Many students have participated and won the prizes in the Film festival & Culturals organized by various universities and colleges.
- Educational trip for all the students (Photography /TVP & Film editing)

Weaknesses

- Number of funded projects obtained in the department needs to be improved.
- Number of research papers published by the staff members with high impact factor and standard indexing needs to be improved.
- Planning the Collaboration of the department with other Institutions and Industries need to be improved.

Opportunities

- The department possesses advance equipment's required for carrying university activities.
- A Preview theatre can be established exclusively for the department with the expansion of advanced equipment's and technology.

Challenges

- To achieve improved percentage of placement of students in core Media industries.
- To enrich the motivational program on self-entrepreneurship to students in order to achieve 100% employment.
- To motivate the staff to identify and compete in the recognition / awards for academic faculty in National / International level.

52. Future plans of the department.

- Establishing new Lab for screening Films/ Preview theatre
- Latest equipments to be purchase for the dept.
- To aim in obtaining more number of funded projects from various funding agencies.
- To encourage research and development activities in collaboration with industries in order to apply for intellectual property rights
- Specialized courses are planned to be initiated.
- Number of research papers published by the staff members with high impact factor and standard indexing needs to be improved.

8. SCHOOL OF MEDICINE

1. **Name of the Department** : School of Medicine
2. **Year of establishment** : 2009
3. **Is the Department part of a School/Faculty of the university?**
Yes, Faculty of the University - Faculty of Dental Sciences
4. **Name of the programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., D.Sc., D.Litt.,BDS etc.,)**
Bachelor of Dental Surgery (B.D.S)
5. **Inter Disciplinary programmes and departments involved** : Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Nil
7. **Details of programmes discontinued, if any, with reasons** : Nil
8. **Examination systems; Annual/ Semester/ Trimester/Choice based credit system** : Annual Examination System
9. **Participation of the department in the courses offered by other departments** : Nil

10. Number of teaching posts sanctioned, filled and actual (Professors/Reader/ Lecturer&Tutor)

Minimum Staff Pattern for Ungraduate Dental Studies for 100 Admissions as per DCI Regulation

Category	Requirement	Actual
Professor	6	6
Reader	13	13
Lecturer/Tutor	40	40

Medical teaching staff in dental college as per DCI Regulation

Category	Requirement	Actual
Professor	NIL	NIL
Reader	09	09
Lecturer/Tutor	22	22

11 Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
1	Dr. A.G. Manimegalai	MDS	Principal	Periodontics	18 Years
2	Dr. R. Hari Babu	MDS	Professor & HOD	Prosthodontics	20 Years & 1 Month
3	Dr. S. Prakasam	MDS	Professor & HOD	Conservative Dentistry and Endodontics	39 Years & 1 Month

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
4	Dr. S.Gandhi Raj	MDS	Professor & HOD	Oral and Maxillofacial Surgery	30 Years & 1 Month
5	Dr. M.G. Krishna Baba	MDS	Professor & HOD	Periodontics	18 Years & 7 Months
6	Dr. B. Thayumanavan	MDS	Professor & HOD	Oral Pathology	16 Years & 6 Months
7	Dr. Shahul Hameed Faizee. K. M	MDS	Professor & HOD	Orthodontics	13 Years & 5 Months
8	Dr. Johara Maria Cruz	MDS	Professor	Prosthodontics	12 Years & 9 Months
9	Dr. V. Balakumar	MDS	Professor	Prosthodontics	12 Years & 9 Months
10	Dr. Ajay Chandran	MDS	Professor	Oral and Maxillofacial Surgery	11 Years & 8 Months
11	Dr. Suraj Balaji	MS	Professor	General Surgery	15 Years & 1 Months
12	Dr. Kurinji Amalavathy. R	MDS	Reader	Conservative Dentistry and Endodontics	8 Years & 9 Months
13	Dr. K. Sathyanarayanan	MDS	Reader	Conservative Dentistry and Endodontics	8 Years & 1 Months
14	Dr. Nachiappan. S	MDS	Reader	Oral and Maxillofacial Surgery	9 Years & 8 Months
15	Dr. P. Anu Sudha	MDS	Reader	Oral and Maxillofacial Surgery	7 Years & 4 Months
16	Dr. P.B. Anand	MDS	Reader	Periodontics	9 Years & 10 Months
17	Dr. Sumathi. H. Rao	MDS	Reader	Periodontics	9 Years
18	Dr. K. M. Vidya	MDS	Reader	Oral Pathology	9 Years & 6 Months
19	Dr. Bhavani Balakumar	MDS	Reader	Pedodontics	8 Years & 1 Months
20	Dr. C. Pravda	MDS	Reader	Oral Medicine and Radiology	9 Years & 9 Months
21	Dr. N. R. Shrinivaasan	MDS	Reader	Orthodontics	6 Years & 11 Months

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
22	Dr. Nandini. G. D	MDS	Reader	Oral and Maxillofacial Surgery	6 Years & 10 Months
23	Dr. Gayathri. S	MDS	Reader	Periodontics	6 Years & 10 Months
24	Dr. N. Anuradha	MD	Reader	Physiology	11 Years & 7 Months
25	Dr. M. Adil Ahmed	MDS	Reader	Public Health Dentistry	6 Years & 2 Months
26	Dr. Vijay Amirtharaj. J	MD	Reader	General Pathology	7 Years & 3 Months
27	Dr. Prathiba. G	Ph.D.	Reader	Microbiology	16 Years & 6 Months
28	Dr. Kannan	MS	Reader	Anesthesia	7 Years & 2 Months
29	Dr. Tharani kumar. S	MDS	Reader	Oral and Maxillofacial Surgery	6 Years & 1 Month
30	Dr. Khadijah Mohideen	MDS	Reader	Oral Pathology	5 Years & 10 Months
31	Dr. Ishita Kukreja	MDS	Reader	Pedodontics	6 Years & 4 Months
32	Dr. Anu. V	MDS	Reader	Public Health Dentistry	5 Years & 2 Months
33	Dr. Tamil Selvi. P	Ph.D.	Reader	Anatomy	7 Years & 1 Month
34	Dr. S. Priya	Ph.D.	Reader	Pharmacology	6 Years & 7 Months
35	Dr. Srividya. S	Ph.D.	Reader	Biochemistry	11 Years & 8 Months
36	Dr. Basweswar	MD	Reader	General Medicine	23 Years & 1 Month
37	Dr. S. Sankara krishnan	MDS	Senior Lecturer	Prosthodontics	4 Years & 1 Month
38	Dr. Sushmita Shivanna	MDS	Senior Lecturer	Conservative Dentistry and Endodontics	8 Years & 1 Month
39	Dr. V. Nandhini	MDS	Senior Lecturer	Periodontics	3 Years & 8 Months

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
40	Dr. S. Rajkumari	MDS	Senior Lecturer	Oral Pathology	4 Years & 6 Months
41	Dr. A. Murali Balasubramaniam	MDS	Senior Lecturer	Oral Pathology	3 Years & 3 Months
42	Dr. Xavier Dhayananth	MDS	Senior Lecturer	Orthodontics	4 Years & 5 Months
43	Dr. Navaneetha Nambi	MDS	Senior Lecturer	Orthodontics	3 Years & 4 Months
44	Dr. Sonali Sarkar	MDS	Senior Lecturer	Oral Medicine and Radiology	3 Years & 2 Months
45	Dr. Bellamkonda Pavani	MDS	Senior Lecturer	Public Health Dentistry	2 years & 5 Months
46	Dr. Santham Krishnamoorthy	MDS	Senior Lecturer	Pedodontics	2 Years & 1 Month
47	Dr. Indu Bharkavi. S. K	MDS	Senior Lecturer	Oral Pathology	1 Year & 11 Months
48	Dr. Hema Nandhini	MDS	Senior Lecturer	Prosthodontics	10 Months
49	Dr. Sonali Nabil Saroosi	MDS	Senior Lecturer	Conservative Dentistry and Endodontics	9 Months
50	Dr. Sakshi Gulati	MDS	Senior Lecturer	Oral Medicine and Radiology	2 Years & 11 Months
51	Dr. Ashok Prasanna. R	MDS	Senior Lecturer	Oral and Maxillofacial Surgery	6 Months
52	Dr. R. Piradhiba	MDS	Senior Lecturer	Orthodontics	2 Months
53	Dr. N. Venkata lakshmi	Ph.D.	Lecturer	Anatomy	5 Years & 10 Months
54	Mrs. Rupasri Dutt- Roy	M.sc	Lecturer	Physiology	22 Years & 1 Months
55	Dr. G. Sridevi	Ph.D.	Lecturer	Physiology	9 Years & 1 Month
56	Dr. M. Prem Janu	Ph.D	Assistant Professor	Biochemistry	17 Years & 1 Month

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
57	Dr. Abirami	MBBS	Lecturer	Biochemistry	2 Months
58	Dr. Jeeva Jerome	MD	Lecturer	General Pathology	4 Years & 4 Months
59	Dr. A. Krishnakanth	MBBS	Lecturer	General Pathology	16 Years
60	Dr. Malathy. B. R	Ph.D.	Lecturer	Microbiology	15 Years & 7 Months
61	Dr. Padmalakshmi	MBBS.	Lecturer	General Surgery	38 Years
62	Dr. R. Amudhan Ramachandran	MBBS	Lecturer	General Surgery	26 Years
63	Dr. Sundari Chandrasekar	MBBS	Lecturer	Anesthesia	34 Years
64	Dr. Kiruthika shree	MBBS	Lecturer	Anatomy	3 Years
65	Dr. T. Geetha	BDS	Tutor	Conservative Dentistry and Endodontics	7 Years & 4 Months
66	Dr. Aishwarya. N	BDS	Tutor	Prosthodontics	6 Years & 7 Months
67	Dr. K. Vidya	BDS	Tutor	Prosthodontics	6 Years & 7 Months
68	Dr. Christy Tibina. C	BDS	Tutor	Oral Medicine and Radiology	1 Year & 9 Months
69	Dr. Anusha. M	BDS	Tutor	Orthodontics	1 Year & 9 Months
70	Dr. Daifra. C	BDS	Tutor	Prosthodontics	1 Year & 9 Months
71	Dr. Lisi Bonsika. M	BDS	Tutor	Conservative Dentistry and Endodontics	1 Year & 9 Months
72	Dr. Powlin Shinu Lincy. J	BDS	Tutor	Oral Medicine and Radiology	1 Year & 1 Month
73	Dr. Aashini Maria Georgina	BDS	Tutor	Conservative Dentistry and Endodontics	9 Months

SL No	Name	Qualification	Designation	Specialization	No of Years of Experience
74	Dr. Sobiha	BDS	Tutor	Pedodontics	7 Months
75	Dr. R. Revathy	Ph.D.	Lecturer	Pharmacology	5 Months
76	Dr. Tharani	MBBS	Lecturer	General Medicine	8 Years
77	Dr. Savitha	MD	Lecturer	General Medicine	1 Month
78	Dr. Revathy	MBBS	Lecturer	General Medicine	2 Months
79	Dr. Manjula. V	MBBS	Lecturer	General Surgery	2 Months
80	Dr. Geetha	MBBS	Lecturer	Microbiology	11 Months
81	Dr. Radhuka	BDS	Tutor	Oral and Maxillofacial Surgery	1 Month
82	Dr. Logesh. Y	MBBS	Lecturer	Anatomy	2 Month
83	Dr. Nandhini. P	MBBS	Lecturer	Anatomy	2 Month
84	Dr. Rajlakshmi	MBBS	Lecturer	Pharmacology	2 Month
85	Dr. Archimedes	MBBS	Lecturer	Pharmacology	2 Months
86	Dr. Sharmila Swaminathan	BDS	Tutor	Public Health Dentistry	1 Month
87	Dr. Arthi	BDS	Tutor	Periodontics	1 Month
88	Dr. Deepa	BDS	Tutor	Oral and Maxillofacial Surgery	1 Month
89	Dr. Manjula. M	BDS	Tutor	Prosthodontics	1 Month
90	Dr. Anandha Pathmanabhan	BDS	Tutor	Conservative Dentistry and Endodontics	1 Month

12. List of senior visiting fellows, adjunct faculty, emeritus professors : Nil

13. Percentage of classes taken by temporary faculty-programme-wise information : Nil

14. Programme- wise Student Teacher ratio

As per DCI Norms 1: 5.5

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

S.No	Designation	Requirements	Name
MANAGERS/OFFICE SUPTD			
1	Establishment	1	Sudhakar
2	Accounts	1	Arul jothi
3	Security	1	L. Ganesan
4	Computer	1	Nirmal
ASSISTANTS			
1	Establishment	1	Mary Shoba
2	Accounts	1	Nagarajan D
3	Admissions	1	Suresh M
4	Exams	1	Dhanraj C V
5	Stores	1	Samynathan
6	Library	2	Sasikumar, Vishwanath
7	Maintenance	1	JanakiRaman

S.No	Designation	Requirements	Name
RECEPTIONIST			
1	Receptionist	8	Jasmine Jenifer ThanuSheela Apsara Barvin Subashini Jenni Elferin Geethu Sajitha Anusha
LIBRARIAN			
1	Library	1	Johnson
DSA(chairside attendant)			
1	Clinical departments	10	Ashokan M Shesh Kant L.C. Arul R. Nepolian S Raja Guru B Manikandan S. Rogers Kathiravan M Loganathan P

S.No	Designation	Requirements	Name
DENTAL TECH(MECHANICAL)			
1	Clinical Department	6	Vijay
			Dhandapai
			Muthu
			Ram Kumar
			Krishnan
			Krishna Kumar
DENT.HYGST			
1	Clinical Department	4	Lavanya
			Gowri Priya
			Suba J
			Krishnakumari. S
RADIOGRAPHER			
1	Clinical Department	2	Kumar
			Gopal
PHOTOGRAPHER			
1	Illustration	1	Danapathy
ARTIST			
1	Illustration	1	Pugazhendhi
PROGRAMMER			
1	Computer	1	Raja
DATA ENTRY OPERATORS			

S.No	Designation	Requirements	Name
1	Computer	1	Baskar
PHYSICAL DIRECTOR			
1	Sports	1	Ravi
ENGINEER			
1	Maintenance	1	Manoj
ELECTRICIANS			
1	Maintenance	2	Mohan
			Arul
PLUMBER			
1	Maintenance	1	Kannan
CARPENTER			
1	Maintenance	1	Ramesh
MASON			
1	Maintenance	1	Raj Kumar R
AC TECH			
1	Maintenance	1	Dhanraj
HELPERS ELETRICAL			
1	Maintenance	1	Guna
SWEEPERS & SCAVANGERS			

S.No	Designation	Requirements	Name
1	Library	2	Mohan Rao A
			Babu
2	Maintenance	2	Joseph
			Deva Doss
3	Clinical depts	3	Jacob
			Lathan
			Anjali
4	Laboratories	3	Amudha
			Lakshmi
			Aarun
ATTENDERS			
1	Receptionist	2	Kannan D
			Jaganathan R
2	Establishment	1	Vel Murugan S
3	Accounts	1	Sekar J
4	Exams	1	Deepak L
5	Stores	1	Jaya Kumar K
6	Library	1	Santhosh
7	Maintenance	2	Sasi Kumar G
			Jaya Raman
8	Clinical Depts	4	Palani S
			Manikandan S

S.No	Designation	Requirements	Name
			Sundara pandian
			Karthikeyan S
9	Computer	1	Yuvaraj S
10	Laboratories	4	Manikandan J
			Santhosh
			Vimal
			Anbu R
SECURITY PERSONAL			
1	Security	5	Ram Prasad
			Krishna Bahadur
			Lal Bahadur
			Deepak C.
			Ganesh Tapa
DEPT.SECRETARIES			
1	Clinical Depts	4	Karunakaran P
			Prabhakaran
			Antony P
			Senthil Nathan
DRIVER			
1	Security	4	Bishnu Prasad
			Rama Moorthy
			Thulasingam
			Ramkumar

S.No	Designation	Requirements	Name
NURSES			
1	Clinical Depts	3	Hemalatha Radha Gopinath Libincy Praba Jose Mary Geethanjali Ezhilarasi Sahaya Janet Gowsalya Sathya
LAB.TECHNICIANS			
1	Laboratories	3	Selvaraj Kaathamuththu Monisha Shalini

16. **Research thrust areas as recognized by major funding agencies**

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Amt. Sanctioned (Lakhs)
1	Dr. Jayshree Nellore Dr.R.Malathy	Reversal Of Multi Drug Resistant Pseudomonas Aeruginosa Isolated From Various Clinical Sources By Pyochelin Conjugated Liposome Oleic Acids Co-Encapsulated With Combination Antibiotics	ICMR	Rs. 51,00,065/-
Total				Rs. 51,00,065/-

17. **Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.** : NIL
18. **Inter-institutional collaborative projects and associated grants received** : NIL
 a) National collaboration b) International collaboration
19. **Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

SI No	Project title	Name of the student	Year	Guided by	Outcome	Grant ICMR
1	Gender differences in autonomic functional status in response to stress	Miss. Sahera Shabnam	2011	Mrs. G.Sridevi	Project completed and published	RS.10000
2	Impact of examination stress in the autonomic functional status in 1 yr BDS students	Mr. Surya Goutham Abraham	2014	Mrs. G.Sridevi	Project completed and under review for publication	RS.10000
3	Facial - Odontometric Analysis To Estimate The Height Of An Individual	Ms Monica Dev. D. S	2012-17	Dr. Rajkumari. S	Completed	RS 10000

SI No	Project title	Name of the student	Year	Guided by	Outcome	Grant ICMR
4	Reversal Of Multi Drug Resistant Pseudomonas Aeruginosa Isolated from Various Clinical Sources by Pyochelin - Conjugated Liposome Oleic Acids Co-encapsulated with Combination Antibiotics	-	Jul 2012 - Jul 2015	Dr. B. R. Malathy	Completed	51.85 lakhs
Total						Rs 52.15 lakhs

PROPOSALS

SI No	Project Title	Staff	Department	Year	Status
1	Influence of insulin signaling on autophagy with special reference to Adipose-resident stem cell ageing	Ms Tamil Selvi. P	Anatomy	2016	Project Proposal Applied DST SERB
2	Efficacy of Natural Polymeric Herbal Diabetic Wound Dressing Films	Dr. S. Srividya & Dr. G. Sridevi	Biochemistry & Physiology	2016	Project under consideration in DBT

20. **Research facility / centre with**

- State recognition
- National recognition
- International recognition NIL

21. **Special research laboratories sponsored by / created by industry or corporate bodies** : Nil

22. **Publications:**

- Number of papers published in peer reviewed journals (national / international) :150 (2011 till date)
Publications for the year 2015-2016: 22
- Monographs : NIL
- Chapters in Books : 3
- Edited Books : NIL
- Books with ISBN with details of publishers : NIL
- Number listed in International Database :PUBMED 35 (2015-16 – 8), Web of Science-9, Scopus-35,EMBASE:17,EBSCO:22,DOAJ:20,INDEX COPERNICUS:33,HINARI:20,Open JGate:16
- Citation Index – range / average : 1-10/5.0
- SNIP : 0.057 – 0.676
- SJR : 0.104 – 0.334
- Impact Factor – range / average : 0.730 – 2.057
- h-index : 4

23. **Details of patents and income generated** : Not Applicable

24. **Areas of consultancy and income generated**

Treatments are provided at free of cost for all patients except for material & lab charges

25. **Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad** : NIL

26. **Faculty serving in**

a) National committees b) International committees c) Editorial Boards d) any other (please specify)

Dr. Balakumar - Dept. of Prosthodontics : Reviewer in JIDAT,
Journal of Indian dental Association, Tamilnadu
Journal of Indian Prosthodontic society

Dr. S.Priya - Dept. of Pharmacology : Life time member of Indian Association of Biomedical scientists (IABMS)
Life time member of Society of Toxicology (STOX)

27. **Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):** NIL

28. **Student projects** :

Department	Students	Status		
		Planned	InProgress	Completed
Microbiology – Biotechnology	4 -	-	- 1	3

Department	Students	Status		
		Planned	InProgress	Completed
Physiology – Biochemistry	6	-	-	6
Physiology	4	-	2	2
Physio – Biotech				
Biochemistry – Public health	1	-	-	1
Oral pathology	5	-	5	-
PHD	21	-	-	21
Periodontics	2			2
Cons & endo	1	1	-	1
Total	45	1	8	36

- Percentage of students who have done in-house projects including inter- departmental projects
- Percentage of students doing projects in collaboration with other universities/industry / institute : NIL

29. Awards / recognitions received at the national and international level by :

- Faculty Awards: 2012-15: 6
 - Doctoral / post-doctoral fellows: 9
 - Students

Year	No: of events	Scientific Papers	Scientific posters	Others*	Awards won
2016	9	8	21	20	17
2015	7	7	10	8	9
2014	8	18	15	9	19
2013	8	38	28	10	24
2012	4	11	6	2	2
Total	35	82	80	49	71

30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any. :

SEMINARS, GUEST LECTURES, SYMPOSIUMS & WORKSHOPS – Organized

Summary

Total No of Events – 37

Clinical – 25

Basic Sciences – 12

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
1	29 th & 30 th Jan 2010	National Seminar on Sterilization Protocols, AIDS control and Focal Sepsis in Dental Practice	Prof. J. S .N. Murthy <small>M.D, DNB</small> Dr. A. Ramachandran <small>M.D</small> Dr. A. G. Ramesh <small>M.B.B.S, M.S</small> Dr. A. V. Srinivasan <small>M.D, D.M</small> Dr. Krishna Kumar Raja <small>M.D.S</small>	College
2	16 th & 17 th Feb 2010	IPD d.SIGN- Metal Ceramic Course	Dr. Sujithra <small>B.D.S.</small> (Instructor–IVOCLAR).	College
3	18 th Sep 2010	Newer Trends in Esthetic Dentistry	Dr. Vijayalakshmi Acharya <small>MDS</small> Dr. Ashok Doble <small>MDS</small> Dr. Sandesh Mayekar <small>MDS</small>	Orthodontics
4	24 th Nov 2010	Stem Cell Application for Spinal Cord Injury Treatment	Dr. V. Sankar, Msc., Ph.D., Department of Anatomy University of Madras (Anatomy)	Anatomy
5	24 th Nov 2010	Human physiology and yogic sciences	Dr. Meenakshi, Professor in Physiology, Muthukumaran Medical College and Research Institute, Chennai.	Physiology

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
6	Nov 2010	Saliva as a diagnostic window	Dr. Ashok Ben, Associate Professor, Sri Ramachandra Medical College	Biochemistry
7	25 th Nov 2011	Anti-Retroviral Therapy	Dr. Kumaraguru Rajan, Deputy Director, TANSACS	Pharmacology
8	07 th Mar 2011	Dentist Day Celebration & Oral Cancer Awareness	Dr. Srinivasan MD, DMRD (Regional Cancer Institute, Kancheepuram) Dr. Chandra Gupta BDS (General Practitioner)	Oral Medicine & Radiology
9	01 st Aug 2011	Oral Hygiene Day	Dr. N. Ambalavanan MDS	Periodontics
10	30 th Nov - 2 nd Dec 2011	Lingual Orthodontic Workshop		Orthodontics
11	3 rd Dec 2011	National Symposium on Orthodontic trends		Orthodontics
12	30 th Mar 2012	Periodontal Medicine	Dr. Jaideep Mahendra MDS	Periodontics
13	20 th Apr 2012	Oral Premalignant lesions	Prof. Hema MD Balaji Medical College, Chrompet	General Pathology
14	20 th Apr 2012	Basic Understanding of Pain	Dr. Viswanatha Rao, Professor in Physiology, Madras medical college	Physiology
15	30 th Apr 2012	Stem Cells and Clinical Implications	Dr. Rosy Vennila	Microbiology
16	10 th May 2012	Clinical Trial – An Overview	Dr. Mithra Dhanraj MD, DGO, Centre Head, Centre for Clinical and Pharmaceutical Research, Lotus labs	Pharmacology

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
17	Jul 2012	Genotoxicity & Essentials for New Drug Designing.	Dr.S.S.Murugan, Toxicologist GLRS Laboratories	Biochemistry
18	28 th Sep 2012	HIV & AIDS Awareness	Dr. N. Usman MD, DV	Periodontics
19	26 th April 2013	Environment & Health	Prof. Dr. Sivagami Kangayappan Deccan Foundation	Public Health Dentistry
20	26 th April 2013	Anaemia	Prof. Dr. C.T. Chidambaram MD, DNB Consultant Pathologist, SRL Ranbaxy	Gen Pathology
21	8 th May 2013	Physiology of shock and its management	Dr.Viswanatha Rao, Professor in Physiology, Madha Medical college & Research Institute	Physiology
22	29 th Sep 2013	Fitness to overcome occupational hazards of Dental Surgeons	Mr. Kannan Pugazhendhi, Sports & Fitness Medicine Consultant	Orthodontics
23	04 th Feb 2014	Viridans streptococci and its Role in Endocarditis	Dr.S. Prabu MSc.Ph.D, Asst Professor Dept. Of Microbiology, Dr ALM PG IBMS, Taramani campus, University of Madras	Microbiology
24	28 th Mar 2014	Nanotechnology and its applications	Dr. Kuppusamy Dr. Rajesh Kannan Dr. Gopi Saravanan	College
25	16 th & 23 rd April 2014	SCOPE 2014 – Guest Lectures, Panel Discussions, Paper & Poster Presentations and Quiz	Dr. Kamal Kannadasan, Dr. D. Arunachalam, Mr. Srinivas Acharya, Mr. Thirunavukkarasu	Periodontics
26	27 th Jun 2014	Oral Cavity and Systemic Disesases	Dr. Gnanasundaram MDS Former Dean, GDC Chennai	Oral Medicine & Radiology

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
27	16 th to 18 th July 2014	Basic Life Support – Hands-on course	Dr. Ramkumar, SRMC Ms. Lydia, ATLS coordinator, TACT	Oral & Maxillofacial Surgery
28	31 st Oct 2014	National Board Dental Education	Mrs. Vinitha Thomas, Deputy General Manager, The Chopras Global Education	College
29	16 th Nov 2014	Enhancing Pediatric Dentistry Practice	Dr Vijayaprabha MDS Reader, Dept of Pedodontics Ragas Dental College & Hospital Dr R Bhavani MDS Reader, Dept of Pedodontics Sathyabama University Dental College & Hospital Dr Chockalingam MDS Dr M. Saravana Kumar MDS Reader, Dept of Pedodontics Indira Gandhi institute of dental sciences Dr M.S.Muthu Prof & Head, Dept of Pedodontics, SRMC - Faculty of dental sciences	Pedodontics

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
30	28 th Nov 2014	Tobacco Cessation Methodology	Dr. VIDHU BALA Head, Department of Psycho-oncology, Adyar Cancer Institute, Chennai	Oral Medicine & Radiology
31	27 th Jan 2015	Clinical Perspectives in Maxillofacial Surgery	Dr. Vivek Narayanan, MDS, Dean, Prof & HOD, Dept of OMFS, SRMK dental college.	Oral & Maxillofacial Surgery
32	07 th Apr 2015	IDA Webinar – “Offer Implants as Treatment Modality to you patients”	Dr. Ratnadeep Patil	College
33	22 nd Apr 2015	Sterilisation Protocol for an Accredited Dental Practice	Dr. Vidya Hari Iyer, BDS	
34	27 th Apr 2015	Elsevier Dental Science Olympiad 2015-16 in Oral Medicine, Oral Diagnosis and Oral Radiology	Dr. Pravda, MDS, Reader, Dept of OMRD, Sathyabama University Dental College & Hospital	Oral Medicine & Radiology
35	27 th & 28 th May 2015	Evolutions and revolutions – SCOPE'15	Dr. E. Munirathram Naidu, MDS, Prosthodontist & Implantologist, Dr. Naidu's Dental Clinic. Dr. Kandaswamy. MDS, Dean, Prof and HOD, Dept of Conservative Dentistry, Sri Ramachandra Dental college Dr. K. Ranganathan, MDS, M.S (OHIO), Ph.D Prof and HOD, Dept of Oral Pathology, Ragas dental college	Oral Pathology

S No	DATE	TOPICS	SPEAKER(s)	Department(s)
			<p>Dr. Krishna Kumar Raja, MDS, Prof and HOD, Dept of OMFS, SRM dental college</p> <p>Dr. Suraj Balaji, MBBS, MS, FSQE, DLS (Ger) Prof and HOD, Dept of General Surgery, Sathyabama University Dental college</p> <p>Dr. T.N. Ravi Shankar, MBBS, FCGP, DFM, Director, Deepam Hospitals.</p>	
36	2015	Recent advancements on diagnosis and treatment strategies for oral carcinoma	Dr. Rajkumar, M.D, Head of Research, Adyar Cancer Institute.	Public Health Dentistry
37	19 th Jul 2016	IDA Webinar on "Implant Dentistry – A New Beginning"	Dr. D. Arunachalam	College

31. **Code of ethics for research followed by the departments** : Following ICMR regulations

32. **Student profile programme-wise**

a) Profile

Name of the Program (refer to question 4)	Application received	Selected	
		Male	Female
I	2135	4	96
II	1932	5	95
III	1753	15	84
IV	1645	24	76
V	572	24	64

b) University Results

Name of the Program (refer to question 4)	Pass Percentage
I	85%
II	97%
III	95%
IV	91%
V	95%

33. **Diversity of students** : Students from various states of India and NRIs

34. **How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.** : Not Applicable

35. **Student progression** : Our students are into clinical practice, either on their own or attached to established clinics & hospitals

Post Graduation – 28 -

- 26 Students doing PG in Dental Subjects
- 1 Student doing Msc in Forensics Odontology
- 1 Student doing MBA in Hospital Administration at IIM - C

Senior Internship – 8

Started own Clinics – 3

Medical Coding, Insurance – 5

Teaching – 7

36. **Diversity of staff** :

37. **Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period** : Not applicable

38. **Present details of departmental infrastructural facilities with regard to**

a) Library

No of Titles	No of Books	No of References	No of Journals	Cost of the Books
1894	5010	343	38	Rs.45,00,000

b) Internet facilities for staff and students – 60 No of Systems available

c) Total number of class rooms - 4

d) Class rooms with ICT facility - 4

- e) Students' laboratories - 9
- f) Research laboratories -

39. **List of doctoral, post-doctoral students and Research Associates** : NIL

- a) from the host institution/university
- b) from other institutions/universities

40. **Number of post graduate students getting financial assistance from the university.** : Not Applicable

41. **Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.** : NIL

42. **Does the department obtain feedback from**

a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Department collects feedback for each subject, from the faculties who are proficient in the respective subjects. These feedbacks are considered along with the suggestions of teaching faculties in reframing / refining the syllabus which takes place every year.

b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Based on the experience of staff members, the subjects are allotted to all the staff members. The Head of the Department collects the feedback from students about the staff performance and other grievances related to curriculum immediately (after one month) after the commencement of the academic year. Depending on the feedback, the Head of the Department has one to one discussion with the corresponding staff members to sort out the issues. After half the academic year gets over, feedback is collected from the students to ensure students comfort. This feedback is filed in the office

c. alumni and employers on the programmes offered and how does the department utilize the feedback? : NIL

43. **List the distinguished alumni of the department (maximum 10)** : NIL

44. **Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts. -**

Please Refer Question No :30

45. **List the teaching methods adopted by the faculty for different programmes. :** Didactic and interactive methods are used with adjuncts such as power point presentations with live demonstrations, speciality scientific videos, teaching models etc.

46. **How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The goal and objectives are set at the beginning of each academic year. The objective of the department is reviewed every month and at the end of the year which is updated in the review matrix. Every four months the students are taking up internal exams for their assessment & evaluation.

The parameters in the review matrix includes pass percentage of each batch, no of doctoral, the percentage of the students secured first class in their final examination, feedback taken from the student about curriculum and infrastructure, articles which are published in conferences and journals by the staff members etc. The data documented are reviewed once in a month and necessary actions are initiated in order achieve the set objective.

47. **Highlight the participation of students and faculty in extension activities. :**

STUDENT EXTENSION ACTIVITIES

Year	No: of events	Scientific Papers	Scientific posters	Others*	Awards won
2016	9	8	21	20	22
2015	7	7	10	8	9
2014	8	18	15	9	19
2013	8	38	28	10	24
2012	4	11	6	2	2
Total	35	82	81	49	76

* Others include table clinics, video presentations, quiz, essay writing, tooth carving etc

STAFF EXTENSION ACTIVITIES

Department	Conferences & Workshops	Guest Lectures	Scientific Session Chairs	Paper Presentations	Awards	Book Contribution	External Examiner ship
CLINICAL DEPARTMENTS							
Anatomy	2	-	1	-	-	1	-
Physiology	8	2	1	1	-	-	-
Biochemistry	13	-	-	-	1	-	-
Pharmacology	-	-	-	-	-	1	-
Microbiology	10	-	1	-	-	-	6
BASIC SCIENCES TOTAL	33	2	3	1	1	2	6

Department	Conferences & Workshops	Guest Lectures	Scientific Session Chairs	Paper Presentations	Awards	Book Contribution	External Examiner ship
CLINICAL DEPARTMENTS							
Oral Pathology	45	1	5			5	1
Oral Medicine & Radiology	29			2	1	2	
Oral Surgery	9			5	1	2	
Prosthodontics	22	13	13		1	2	
Pedodontics	21	1	3	4	1	3	
Conservative Dentistry & Endodontics	23	1	7				
Public Health Dentistry	4					1	
Periodontics	45	4	2	3	1	3	1
Orthodontics	12	6					
Clinical Departments Total	210	26	30	14	5	18	2

48. Give details of “beyond syllabus scholarly activities” of the department (2015-2016). :
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.
 BDS – Recognized by the Dental Council of India (DCI)
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

We conduct clinical society meetings to update our knowledge periodically and conduct students enrichment programs. We encourage students to enrich their basic and clinical knowledge by attending workshops and CMEs.

The Clinical Society of Sathyabama University was started in 2011, headed by Dr. M. G. Krishna Baba, Professor and Head, Department of Periodontics.

The meetings are held about once in two months, other than the exam months. Each year, a new department takes charge of the meetings.

SUMMARY OF MEETINGS

Total No of Meetings	22	Staff Presentations	34
Total No of Lectures	51	Student Presentations	23

(7 Presentations were combined Staff & Student Presentations)

Department-wise Details

Department	No	Department	No
Oral Medicine	6	Oral & Maxillofacial Surgery	6
Prosthodontics	8	Pedodontics	2

Department	No	Department	No
Conservative Dentistry & Endodontics	5	Public Health Dentistry	3
Periodontics	6	Orthodontics	7
Oral Pathology	8	Physiology	1

DETAILS OF MEETINGS

S No	Date	Topic	Presenter(s)	Department
1	04.07.11	Computerised Treatment Planning in Implantology	Dr. Prabhu	Prosthodontics
2	05.08.11	Mini implants in Orthodontics	Dr. Sudhakar Dr. Deepa. M	Orthodontics
3	30.09.11	Biological Width	Dr. P.B. Anand	Periodontics
4	31.10.11	Early Orthodontics	Dr. C. Venkatraman	Orthodontics
5	31.10.11	Implants	Dr. Balakumar. V	Prosthodontics
6	31.10.11	Impaction	Dr. Nachiappan	Oral & Maxillofacial Surgery
7	25.11.11	Antibiotic resistance – No Action Today, No Cure Tomorrow	Dr. A. Sujatha	Public Health Dentistry
8	25.11.11	Pathology & Practice in Operative Procedures	Dr. Chandrasekar	Oral Pathology
9	25.11.11	Avatar	Dr. Narasimha Bharadhwaj	Conservative Dentistry & Endodontics
10	03.02.12	Drugs – Sword or Shield	Dr. Pravda. C	Oral Medicine & Radiology

S No	Date	Topic	Presenter(s)	Department
11	03.02.12	Aggressive Periodontitis	Dr. Sumathi. H. Rao	Periodontics
12	02.03.12	Dental Caries in 3D	Dr. Kurunji Amalavathy	Conservative Dentistry & Endodontics
13	02.03.12	Anterior Aesthetics in Paediatrics	Dr. Ishita Kukreja	Pedodontics
14	02.03.12	Need for Clinico-pathologic Interactions	Dr. Rajkumari. S	Oral Pathology
15	27.04.12	Lasers	Dr. A. G. Manimegalai	Periodontics
16	27.04.12	First Impression is the Best Impression	Dr. Sudhakar	Orthodontics
17	07.09.12	Shadow cities	Dr. Anitha. M	Public Health Dentistry
18	30.11.12	Importance of Diagnosis – Role of Oral Clinician	Dr. Thanuja Ramadoss	Oral Medicine & Radiology
19	30.11.12	Instrumentation in Minor Oral Surgery Procedures	Dr. Tharani Kumar. S	Oral & Maxillofacial Surgery
20	30.11.12	Role of Triclosan in Plaque Control	Dr. Gayathri. S	Periodontics
21.	30.11.12	Limitations of Forensic Odontology	Geetha Antony. J (IV BDS)	Oral Pathology
22	22.03.13	Saliva as Diagnostic Marker	Dr. Rupashree Dutt Roy	Physiology
23	22.03.13	Surgical Orthodontics	Dr. Sudhakar	Orthodontics
24	22.03.13	Remineralisation of White Spot Lesions	S. Ishwarya (CRRRI)	Oral Pathology
25	29.09.13	Back to Basics	Dr. Aswin Mathew George	Orthodontics

S No	Date	Topic	Presenter(s)	Department
26	22.11.13	Practice before Practice	Dr. Chandrasekar	Oral Pathology
27	31.01.14	Diagnostic Aids in Implants	Meenu. S. M. (CRRI)	Prosthodontics
28	31.01.14	Current Trends in Periodontics	Alfred Rupak. G. R (CRRI)	Periodontics
29	31.01.14	Titanium Bone Screw used as Endodontic Implant	Selwin Gabriel Samuel (IV BDS)	Conservative Dentistry & Endodontics
30	31.01.14	Gorlin – Goltz Syndrome	Suvarna. V. Raj (CRRI)	Oral Medicine
31	28.02.14	Treatment Options in Distal Extension Cases	Nandhini Karpiga. B (CRRI)	Prosthodontics
32	28.02.14	Post for Retention and Resistance	Sathyapriya. R (IV BDS)	Conservative Dentistry & Endodontics
33	28.02.14	Molarisation of Right Lower 2 nd Premolar Gemination	Theertha Sudhakaran (CRRI)	Oral & Maxillofacial Surgery
34	28.02.14	Variation in the Developmental Anomalies of Teeth	Naga Yalini (IV BDS)	Oral Pathology
35	30.05.14	Cleft lip & Palate Management	Dr. Johara Maria Cruz	Prosthodontics
36	30.05.14	Effect of Intramuscular & Submucosal Dexamethasone on Post-operative Sequelae after 3 rd Molar Surgical Removal	Dr. Nandini. G. D	Oral & Maxillofacial Surgery
37	30.05.14	Oral Exfoliative Cytology	Shabnam. A. A (CRRI)	Oral Pathology
38	30.05.14	Provisional Restoration in Fixed Prosthesis – Optional or Mandatory	Nidhishree (CRRI)	Prosthodontics
39	28.11.14	Attributes to Healthy Smile	Navid Ahmed Wani (CRRI)	Orthodontics
40	27.01.15	Management of Early Class III Malocclusion	Dr. Navaneetha Nambi Ajit. C (CRRI)	Orthodontics

S No	Date	Topic	Presenter(s)	Department
41	27.01.15	Biomedical Waste Management	Sumaiyya. M (CRRRI) Gayathri. K (CRRRI)	Oral Surgery
42	20.02.15	Implant impressions	Sathyapriya. R (CRRRI)	Prosthodontics
43	20.02.15	Chambers of Secret – M ₃ Maxillary Molar – MB ₂	Dr. Sushmitha Nadeem. M. A (CRRRI)	Conservative Dentistry & Endodontics
44	24.03.15	Management of an Extensive Mandibular Lesion with Multiple Impacted Teeth in a Patient with Cleidocranial Dysostosis – A Case Report	Dr. Anu Sudha. P Charanya. C (CRRRI)	Oral & Maxillofacial Surgery
45	24.03.15	Detecting Child Abuse & Neglect	Dr. Adhil Ahmed Karthika (CRRRI) Anshi Mofidha (CRRRI)	Public Health Dentistry
46	24.03.15	Behaviour Management	Dr. Ishita Kukreja Vennila. A (CRRRI)	Pedodontics
47	25.09.15	Case Series – Pemphigoid Lesions Red Lesions of Gingiva	Dr. V. Nandhini Yazhini Bala. A (CRRRI)	Periodontics
48	25.09.15	Flexible Dentures – A Case Report	Dr. Sankarakrishnan	Prosthodontics
49	29.07.16	Tobacco Induced Oro dental Changes	Dr. Khadijah Mohideen	Oral Pathology
50	29.07.16	Tobacco Awareness Survey – An Ounce of Prevention is worth a Pound of cure	Monica Dev. D. S (IV BDS)	Oral Medicine & Radiology
51	29.07.16	Role of Dentists in Tobacco Cessation	Dr. C. Pravda	Oral Medicine & Radiology

S No	Date	Topic	Presenter(s)	Department
52	29.07.16	Orofacial Pain "The Pain Diagnosis"	Surya Gowtham Abraham Ruksar Rasheed Angel. D (CRRIs)	Oral Medicine & Radiology

51. **Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

Opportunities

- Since our area is improving, we have an opportunity to serve more number of patients and treat variety of oral diseases

Challenges

- To achieve improved performance of the students.
- To encourage the students to achieve improved confidence, skill and knowledge

52. **Future plans of the department.**

- As an under graduate dental college, we would like to go for the Post graduation

CENTRE FOR RESEARCH**Centre for Remote Sensing and Geoinformatics**

1. Name of the Centre
2. Year of establishment : 2004
3. Courses in collaboration with other universities, industries, foreign institutions, etc.

S.No	Name of the Project	Funding Agency	Conducted for	Duration
1.	Capsule course on remote sensing and GIS/Awareness training programme on RS & GIS Orientation training programme on RS & GIS (9/4/1/2005-II dated : 22-3-2006)	ISRO	School Students, School Teachers and Government Officials	2days / one week / two weeks
2.	Geospatial Technology-Concepts and Applications Total number of programmes -7	DST	Government officials, Academic Faculties, Research Scholars and NGOs	Feb 2nd – 17th 2006, March 6th - April 4th 2010 21 Days/ 22nd January to 11th February, 2014
3.	Sensor Web Enablement	DST	Intutional Scientists, Technicians, and Research Scholars	2 days June 1st – June 2nd 2008
4.	Awareness Training Programme on Remote Sensing and GIS to school students (16 Programmes)	ISRO	School Students	May 2005/2006/2007 & May 2008/2009

5.	Disaster Management using Remote Sensing and GIS to Government officials	MoES	Government officials, Academic Faculties, Research Scholars , NGOs	6 days Nov 8th – Nov 13th 2010
6.	Summer / Winter Science Camp under INSPIRE Programme	DST (INSPIRE)	School Students	July 4th- July 8th 2011 Nov 7th – Nov 11 th 2011 July 30th – Aug 3rd 2012
7.	Remote Sensing and Geospatial Technologies for Coastal Environment	MoES	Government officials, Academic Faculties, Research Scholars / NGOs	3 days May 2nd – May 4th 2012
8.	Monsoon Vagaries and its Impact on Ground Water status of Chennai and its Neighbouring Districts in Tamil Nadu	ISRS	Government officials, Academic Faculties, Research Scholars and ISRS members, Chennai Chapter	One Day August 3rd , 2013
9.	Awareness program for remote sensing	NNRMS	Government officials, Academic Faculties, Research Scholars and NGOs	6 Weeks 2015
10.	National Level Conference on Coastal Environment	MoES	Government officials, Academic Faculties, Research Scholars and NGOs	2 Days/Oct 29-30th, 2015
11.	Awareness Program on Geospatial Technologies	DST- NRDMS	Government officials, Academic Faculties, Research Scholars and NGOs	3 Days /Aug 19th-21st , 2015
12.	Ten days Training Program for School Teachers	NCERT	School Teachers from Kendra Vidhayalaya, Navodhaya Vidhayalaya / CBSE private Schools	27th July to 7th Aug ,2015
13.	One day Workshop on Sodar in atmospheric sciences	MoES	Government officials, Academic Faculties, Research Scholars and NGOs	1 Day/16th July 2015

4. Participation of the department in the courses offered by other departments

- Department of Civil Engineering
- Department of Architecture

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name of the Scientists	Qualification	Designation	Area of Specialization	Experience	Research under Guidance
1.	Dr. V. E. Nethaji Mariappan	M.Sc., Ph.D (Agriculture)	Scientist – F	Natural and Bio Resource Assessment and Management	18	
2.	Mrs. T. German Amali Jecintha	M.Sc.,(Geoinformatics) Ph.D (Pursuing)	Scientist – C	Remote Sensing, GIS Photogrammetry	10	
3.	Dr. K. Nagamani	M.Sc.,(Geography) Ph.D (Coastal Studies)	Scientist – C	Coastal and Socio economic survey	14	1
4.	Mrs. P. Mohana	M.Sc.,(Geoinformatics), Ph.D (Pursuing)	Scientist - C	Agriculture and Forest	10	
5.	Dr. K.Jayakumar	M.Sc.(Spatial Information Technology), Ph.D	Scientist-C	Coastal Wetland Ecosystem	9	
6.	Mr. J.Sriganesh	M.Sc., M.Phil., Geology Ph.D. (Pursuing)	Scientist-C	Geology, and Remote Sensing, GIS applications in Coastal	10	
7.	Mr. Kishan Singh Rawat	M.Sc.,Physics, M.Sc. Geoinformatics, M.Tech (Remote Sensing and GIS) Ph.D.(Pursuing)	Scientist-C	Natural Resources Management	9	

S.No	Name of the Scientists	Qualification	Designation	Area of Specialization	Experience	Research under Guidance
8	Dr. Anoop Kumar Mishra	M.Sc. Physics.Ph.D.,	Scientist-D	Satellite Remote Sensing, Climate change study & Disaster Management	10	1
9	Dr. Marykutty Abraham	M.E., Ph. D (Water Resources)	Scientist-E	Water Resources Engineering	19	7
10	S. Parthiban	M.Sc. Geography, MSc., Geoinformatics	Technical Assistant	Remote Sensing & GIS, Soil Moisture	7	
11	V.S.Pooja	M.Tech (Remote Sensing and GIS)	Technical Assistant	Image Processing, GIS	1	
12	Mohammed Rafiq	M.Sc. Geoinformatics, PhD.(Pursuing)	JRF (MoES Project)	Remote Sensing and GIS, Disaster Management & Cryosphere	2.6	

6. List of senior visiting fellows, adjunct faculty, emeritus professors

- Dr. A. Senthilkumar, Dean and Director, Indian Institute of Remote sensing, ISRO, Dehradun, Uttarakhand.
- Dr. V. Jayaraman, Emeritus Professor, Indian space Research Organization, Bangalore H.Q, Bangalore.
- Dr. V.K. Dadwhal, Director, Indian Institute of space Technology, ISRO, Thiruvannathapuram.
- Dr. Shailesh Nayak, former Secretary, Ministry of Earth Sciences, New Delhi.
- Dr. G. Sampath Kumar, Member Secretary, Central Ground Water Board, Faridhabad, New Delhi.
- Dr. T. Natarajan, Visiting Professor, Oil industry Development Board, Anna University, Chennai.
- Dr. Ramalingham, Former Director, Institute of Remote Sensing, Anna University, Chennai.

7. Research thrust areas as recognized by major funding agencies

Climate change, Watershed development, Wind Resource Assessment, Biomass Assessment, Soil Moisture on Crop growth

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned
1	Marykutty Abraham	Know Your Watershed and give water a hand	NCSTC-DST	Oct. 2015 1 year	Rs. 6, 23, 150
2	Anoop Kumar Mishra	An investigation of the changes in cloud cover using long term trends in precipitation extremes and their impact on radiation feedback	SERB DST	3 Years	Rs. 6,50,000/-
3	Anoop Kumar Mishra	Quantification of impact of regional climate change on precipitation patterns over Indi	MoES	3 Years	Rs. 15,43,200
4	Dr.K.Nagamani Co-PI Mr. Sriganesh	Integrated Scientific Approach for Sustainable Development of Tribal Community – A case study of Kalrayan Hills, Villipuram district, Tamil Nadu using remote sensing and GIS	DST- NRDMS	1 Year	Rs. 7,21,000/-
5	P.Mohana	Agro Ecological Zone Based Biomass Assessment of Tiruvannamalai District for Climate Change Adaptation	DST WOS	3 Year	Rs. 5,55,000/-
6	Dr.V.E.Nethaji Mariappan	Extracting the geo coordinates of Windmills for six states in India using Satellite data	NIWE	1 Year	Rs. 3,02,500/-
Total					Rs. 43,94,850/-

9. Inter-institutional collaborative projects and associated grants received

Rs. 1,00,000/- (Forest College and Research Institute, Mettupalayam, Tamil Nadu Agricultural University)

Rs. 22,00,000/- (National Institute of Wind Energy)

Rs. 19,00,000/- (Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI))

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received : Nil

11. Research facility / centre with state recognition, national international recognition :

Centre for Remote sensing and Geoinformatics established in the year 2004 in association with Indian Space Research Organization (ISRO)

12. Publications

Number of papers published in peer reviewed journals (national / international) :25

Monographs - Nil

Chapters in Books - 4

Edited Books - Nil

Books with ISBN with details of publishers -

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 11 ; WOS - 3

Citation Index :

SNIP – Range : 1.035-1.193

SJR – Range : 0.24-0.767

Impact Factor – Range : 0.18-1.98

h-index : 5

13. Details of patents and income generated: Nil

14. Areas of consultancy and income generated:

Rs. 1,00,000/- (Forest College and Research Institute, Mettupalayam, Tamil Nadu Agricultural University)

Rs. 22,00,000/- (National Institute of Wind Energy)

Rs. 19,00,000/- (Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI))

15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad: NIL

16. Faculty serving in

- a) National committees b) International committees c) Editorial Boards d) any other (please specify)
Dr.V.E.Nethaji Mariappan, Dr. Anoop Kumar Mishra & Dr.K. Nagamani

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Sriganesh and Kishan Singh Rawat attended the following workshop and training repectively

Workshop:

- a). "SODAR Technology and its Applications" on 16th July 2015 Organized by CRSG, Sathyabama University.

Training:

- a). "GEO-SPATIAL Technologies" on 02nd to 04th September 2015 organized by CRSG, Sathyabama University Sponsored by Natural Resources Database Management System (NRDMS), Department of Science and Technology (DST), New Delhi.

18. Awards / recognitions received at the national and international level by

Dr. Anoop Kumar Mishra was conferred Young Scientist Award by Ministry of Earth Sciences dt: 27th July 2016

Dr. V.E.Nethaji Mariappan was conferred Best Scientist Award by Deccan Environmental Research Organization dt: 29th Dec. 2015

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

National Level Workshop on Degradation of Coastal Critical Habitats using Remote Sensing and GIS –MoES, New Delhi

20. Code of ethics for research followed by the departments

The centre takes pride in the quality of research which it undertakes

The Centre strictly follows Satellite data usage policy prescribed by the National Remote Sensing Centre (NRSC) ISRO, GOI, Hyderabad

- Reliability in performing research
- Objectivity
- Responsibility for the scientist and researchers of the future

This enhances the overall ethical culture of the research and achieved in particular by formulation of projects, suggestion to remedial measure to solve the issues. The societal benefits research will be exposed in the form of organizing symposia, conference, training programmes and individual lectures and publishing research paper and articles in academic journals.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : 01

22. List of doctoral, post-doctoral students and Research Associates: NIL

23. Number of post graduate students getting financial assistance from the university: NIL

24. Highlight the participation of students and faculty in extension activities.NIL

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The wide scope of center abilities including

- Centre plans to widen its scope in the field of Microwave applications for sustainable development of natural resources.
- Environmental pollution abatement is under the research project by carrying out the Assessing the biomass of the Eastern Ghats for Carbon sequestration of Javadhu hills, Kolli hills, Yelagiri hills and Sitteri hills. This project attempts to assess the content of biomass and carbon by the ways to sequester the CO₂ emitted from the industries
- Centre also join hands with ICMR-NIE in attempting to assess the impact of stone quarry and its implication on the environment and as well as health of quarry workers and its neighbourhood.

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

- a) Strength : Infrastructures – manpower, software's, hardware's, sponsored consultancy projects, training, workshop etc.,
- b) Weakness : National and International collaboration
- c) Opportunities : nice working environment, Independent research, Research discussion with multi disciplinary team of Scientists, guide under graduate, post graduate and doctoral students
- d) Challenges : bringing up centre as centre of excellence

27. Future plans of the department.

- To develop the centre as a Centre for Excellence through innovative projects in the area of Remote Sensing and GIS technology along with Natural and Human resource development.
- To initiate under graduate, post graduate and integrated courses in the field of Geo spatial technology for human resources development
- The projects that were completed so far pertain to state of Tamil Nadu, having lot of support in the form of hardware and software's with technical manpower, Centre like to extend its research activity covering southern states of India.
- Planning to initiate collaboration projects with central agencies like CGWB, ICMR, CWET where domain knowledge with respect to geoinformatics lie with CRSG and other respective core fields lie with central agency.
- Centre also plan to establish a online real time satellite data reception centre. Such initiative will help in dissemination of satellite data free of cost to the user community.
- Centre is in the process of collaborating with Madras Institute of Technology (MIT) Chennai in utilizing the close range images acquired from UAV for Urban applications.
- Several project proposals are being initiated on themes such as artificial groundwater recharge, Planning for utilization of tanks in the context of urbanization, estimation of water potential, augmentation of surface and groundwater resources, impact of climate change on water resources, creating web portal for community awareness generation and to initiate involvement of the community in water related sector for increasing the efficient use of water resources.

1. Name of the Centre **Centre for Nanoscience & Nanotechnology**

2. Year of establishment : 2006

3. Names of any certificate / diploma Courses

S. No	Name of the Course offered	Certificate / diploma
1.	Training program on Synthesis and Characterization Techniques	Certificate Programme
2.	Training program on Field Emission Scanning Electron Microscopy (FESEM& EDAX)	Certificate Programme
3.	Training Program on Thin Film Deposition Techniques	Certificate Programme
4.	Training Program on X-ray Diffraction Unit	Certificate Programme
5.	Hands on Training series (2013-2014) Nanomedicine and Molecular Neuroscience	Certificate Programme
6.	Summer Training on Atomic Force Microscope(AFM)	Certificate Programme

4. Interdisciplinary courses and departments involved

S. No	Name of the Interdisciplinary Course offered	Name of the Departments involved
1	M.Tech -Material Science & Engineering	Mechanical Engineering, Mech & Production Engineering, Chemical Engineering,
2	M.Tech- Nanoscience & Nanotechnology	Electronics & Communication Engineering

5. Courses in collaboration with other universities, industries, foreign institutions, etc

Centre	Nature of Collaboration (Joint Publication/Certificate Course)	National and International institution Collaboration	Funds obtained (if any)
University of Lorraine, Nancy, France	Joint Publication	International	-
University of Concepcion, Chile University of Singapore (NUS), Singapore	Joint Publication	International	-
University of Hyogo, Himeji, Hyogo, Japan	Joint Publication	International	-
University of Minho, Portugal	Joint Publication	International	-
Harvard Medical School	Joint Publication	International	-
European Molecular Biology Lab (EMBL)	Joint Publication	International	-
University of Illinois, USA	Joint Publication	International	-
Rice University, USA	Joint Publication	International	-
Konkuk University, Seoul	Joint Publication	International	-
Jeju National University, South Korea.	Joint Publication	International	-
Horticulture Research Centre, Malaysia	Certificate Course	International	-
Autonomous University of the State of Morelos, Mexico	Certificate Course	International	-

6. Participation of the Centre in the courses offered by other departments

Participation as	Department
Provision for infrastructure and characterization facilities , Teaching and technical guidance for B.E/ B.Tech / M.Tech/ M.Phil /M.Sc level projects/ Ph.D Work	Department of Civil Engineering, Department of Electronics and Communication Engineering, Department of Biotechnology, Department of Mechanical Engineering, Department of Physics, Department of Chemistry, Department of Biomedical, Department of Chemical Engg.

7. Scientist profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D. / M.Phil, etc.)

S.No	Name of the Scientists	Qualification	Designation	Specialization	Years of Experience	Research under Guidance
1	Dr.Vinita Vishwakarma	Ph.D (Botany)	Scientist-F	Environmental nanotechnology, Biofouling, Bio Corrosion, Thin Films Cement and concrete research	15	5
2	Dr. R. Rajesh Kannan	Ph.D (Marine Biotechnology)	Scientist-E	Molecular medicine & Functional Genomics	8	5
3	Dr. J. Brijitta	Ph.D (Chemistry)	Scientist-D	Materials Chemistry, Imaging and Microscopy	8	2
4	Dr.T.S.Shyju (on deputation)	Ph.D (Physics)	Scientist-D	Materials Science	6	2
5	Dr.P. Kuppusami	Ph.D (Physics-Metallurgy interdisciplinary)	Senior Scientist	X-ray Diffraction, Electron Microscopy, Surface Engineering, and Materials Science and Physics	38	6

S.No	Name of the Scientists	Qualification	Designation	Specialization	Years of Experience	Research under Guidance
6	Dr. Dayanand	Ph.D (Bio Chemistry)	Scientist-E	Nanoenzymes and drug discovery	18	2
7	Dr. Madan Kumar	Ph.D (Bio Chemistry)	Scientist-C	Cancer Biology	8	2
8	Dr. Neelakanta Reddy	Ph.D (Physics)	Scientist-C	Ceramic thin films, reflective and anti-reflective coatings, surface modification and smart materials	6	-
9	Dr. Beema Shafreen	Ph.D (Biotechnology)	Scientist-C	Infectious disease and Bioinformatics	2	1
10	Dr. Sankar Paneerselvam	Ph.D (Medical Biochemistry)	Scientist-C	Functional food in health and disease	Fresher	-
11	Dr. S. Johnson Retnaraj Samuel	M.Sc., Ph.D., (Biotechnology)	Scientist-C	Regeneration & Stem cell Biology	Fresher	-
12	Mr. D. Ramachandran	M.Sc (Chemistry)	Scientist-C	Organic Chemistry, cement and concrete research, bio-fouling, bio-corrosion, characterization techniques of AFM, XRD	6	-
13	Mr. Arul Maximus Rabel	M.Tech (Medical Nanotechnology)	Scientist-C	Medical Nanotechnology, polymer-metal composites, characterization techniques of FESEM	5	-
14	Mr. K. Viswanathan	M.Sc (Industrial Electronics)	Scientist-C	Embedded Systems and VLSI, Nanosensors	7	-

S.No	Name of the Scientists	Qualification	Designation	Specialization	Years of Experience	Research under Guidance
15	Mr. K. Gobi Saravanan	M.Tech (Nanotechnology)	Scientist-C	Thin Films, Biomaterials & Corrosion Science	3.5	-
16	Mr. V P Goutham Murari	M.Tech (Material Science)	Scientist-C	Material characterisation, Metallurgical studies	1	-
17	Mr.S.Nandha Gopal	M.Sc (Marine Biotechnology)	Scientific Assistant	Marine Biotechnology	2	-
18	Mr.M.Sreedhar	M.Tech Nanoelectronics	Senior Scientific Assistant	Thin film deposition, Nanoelectronics, Spin Coatings, Anodic bonding Systems	3	-
19	Mr.W.A.Carlton Ranjith	M.Sc. BioTechnology	Scientific Assistant	Molecular Cell Biology	4	-
20	Mr.Kathikeyan	M.Phil, Microbiology	Project Fellow	Microbiology	2	-

S.No	Name of the JRF	Qualification	Title of the project involved	Specialization	Years of Experience
1.	Mr. P. Arjun	M.Sc Marine Biotechnology	Fabrication of neurospecific nanogels for targeted drug delivery, molecular imaging and analysis in APO-E-GFP zebrafish model	Marine Biotechnology	2
2.	Mr.N. Anbarasan	M.Sc, Organic Chemistry	Modification of concrete structures by Bio-waste (Cow dung) to enhance the durability and anticorrosive Properties	Industrial chemistry	2
3.	Ms.Jaibella	M.Sc., M. Phil., Microbiology	Studies on β -lactamase Inhibiter(s) from Streptomyces sp SBRK-1 and its effect on Staphylococcus aureus infected zebrafish embryos	Infectious Disease Biology	1

S.No	Name of the JRF	Qualification	Title of the project involved	Specialization	Years of Experience
4.	Ms.Sudha U	M.Sc Biochemistry	Nanophase modification of Fly ash concrete for enhancement of antibacterial, self - cleaning, corrosion resistance properties and durability	Bio-corrosion	2
5.	Mr.A.M.Kamalan Kirubaharan	M.Sc ,M.Tech Polymer Science & Engg	Transmission Electron Microscopy of Compositionally Graded Coatings of YSZ/Ni-YSZ on Ni Base Superalloy for Nuclear Waste Vitrification Components	High Temperature Coating Composite Development	6
6.	Ms. Dharini.T	M.Sc Material Science	Development of Diffusion Barrier Coatings of YSZ/Ni-YSZ on Ni - Based Superalloy by Electron Beam Evaporation for Applications in Nuclear Waste Processing	Material Science	-
7.	Mr.Sanjeevi Prasath.S	M.Sc, Chemistry	Tunable Block Co- polymer Photonic Gels	Chemistry	-
8.	Mr.Srinivasan	M.Sc, Biotechnology	Molecular studies on the β - amyloid plaque inhibiting molecule(s) of marine sponge Symbionts in zebrafish (<i>Danio rerio</i>) model.	Neuroscience	1
9.	Mr.Anadha Jesuraj	M.Sc, M.Phil, (Physics)	Development of Thermal barrier coating by Electron Beam Physical vapor Deposition	Thin film	1
10.	Mr. B.Vigneshwaran	M.Sc. Materials Science	Development of BaXSr _{1-X} TiO ₃ (BST) tunable Dielectric thin films prepared by Pulsed Laser Deposition	Thin film	1
11.	Mrs.Renu Mary	M.Sc, Physics M.Tech, Nanotechnology	Colour switching electrochemically tunable pH responsive etalons	Physics	1

S.No	Name of the JRF	Qualification	Title of the project involved	Specialization	Years of Experience
12.	Ms. S. Seema	M.Sc., M.Phil Microbiology	Exploration of small peptides from marine echinoderms against candidal amyloid proteins using zebrafish as a model system	Microbiology	1
13.	Ms Persia Jothy	M.Tech, Biotechnology	Steroidal control of vitellogenesis in the fresh water prawn <i>Macrobrachium rosenbergii</i> : lipogenesis and carotenoid metabolism relating to ovarian development and embryogenesis.	Developmental Biology	1
14.	Ms. Rajlaxmi	M.Tech by Research	Isolation and mass production of β -lactamase class proteins in efflux pump inhibitors against multidrug resistant pathogens from marine actinomycetes	Biotechnology	
15.	Mr.Brijendar Kumar	M.Sc , Biotechnology	Isolation and mass production of β -lactamase class proteins in efflux pump inhibitors against multidrug resistant pathogens from marine actinomycetes	Marine microbiology	1
16.	Ms.Gayathri	M.Sc, Biotechnology	Studies on the anticancer mechanisms of PI3K inhibitor(s) from marine sponge symbionts	Cancer Biology	2
17.	Mr.Niranjan	M.Phil, Marine Biotechnology	Identification and Characterization of molecular link between lamin A and Telomere in the context of aging	Animal Cell culture & Molecular biology	1.5
18.	Mr.Karthik A	M.Sc, Biotechnology	Surface Modified Hybrid Bioimplants by Pulsed Laser Deposition to enhance the implant durability	Molecular biology, Immunological techniques	1

8. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1	Dr. Neil Coville, Professor	University of the Witwatersrand, South Africa	2011
2	Dr. Ashok Kumar Ganguli, Professor	IIT Delhi, Chennai, India	2011
3	Dr. BVR Chowdari, Executive Director	National University of Singapore, Singapore	2011
4	Dr. B R Mehta, Schlumberger Chair Professor	Department of Physics, Indian Institute of Technology Delhi, New Delhi	2011
5	Prof. Monica A.Cotta, Professor	UNICAMP - IFGW – DFA, Brazil	2011
6	Pushan Ayyub, Professor	Dept. of Condensed Matter Physics, Tata Institute of Fundamental Research, Mumbai	2011
7	Prof. Chuan-Pu Liu, Professor	Department of Materials Science and Engineering, National Cheng Kung University Tainan, Taiwan	2011
8	Dr. Sunil Kumar, Professor	CoatingsMantra Science and Technology Consulting, South Australia	2011
9	Dr. Jean-Francois PIERSON	Institute Jean Lamour (UMR CNRS 7198), Department CP2S, University of Lorraine, France.	2014 & 2016
10	Dr. Arun Kumar Bhaduri	Professor, Homi Bhabha National Institute Outstanding Scientist & Director, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam	2014
11	Dr. M.Venkateswarlu	Head, Fundamental Research, R & D, Amara Raja Batteries Ltd. Karakambadi, India.	2014

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
12	Prof. Sangam Banerjee	Surface Physics Division, Saha Institute of Nuclear Physics Kolkata	2014
13	Dr. Anoop Kumar Mukhopadhyay	Head, Central Glass and Ceramic Research Institute (CGCRI), Kolkata	2014
14.	Prof. D. D. Sarma	Chairman, Solid State & Structural Chemistry Unit, IISc, Bangalore	2015
15.	Dr. Wilfried Haensch	IBM T.J. Watson Research Center, Yorktown Heights, New York, USA	2015
16.	Prof. Chris Philips	Dean, Faculty of Natural Sciences, Department of Physics Imperial College, London, UK	2015
17.	Prof. Michael Turner	Professor of Materials Chemistry, School of Chemistry, The University of Manchester, Manchester, United Kingdom	2015
18.	Dr. Paulraj Manidurai	Professor, University of Concepción, CHILE	2015
19.	Prof. Dr. Alain BILLARD	University of Technology Belfort-Montbeliard, France	2016
20.	Prof. Abraham OGWU	University of the West of Scotland	2016
21.	Prof. Mohan Rao	Indian Institute of Science, Bangalore, India.	2016
22.	Prof. Dr. Lan YU	Kunming University of Science and Technology, China.	2016
23.	Dr. Goutam Kumar Dalapati	Institute of Materials Research and Engineering (IMRE), Singapore	2016

9. Research thrust areas recognized by funding agencies

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.Vinita Vishwakarma (PI) & Ms. J. Josephine Therasa (Co-PI)	Improving the Antimicrobial Properties of Condenser Material by Surface Modification using Nanotechnology	IGCAR, Kalpakkam	2008-2010	15, 08,000/-	2yrs
2.	Dr.Vinita Vishwakarma (PI) & Mr. S Samal (Co-PI)	Detailed investigations of microbiological aspects of biodeterioration/biodegradation of concrete by sulphur oxidizing bacteria/fungi	IGCAR, Kalpakkam	2009-2011	19, 08,950/-	2yrs
3.	Dr.Vinita Vishwakarma (PI) & Mr. D.Ramachandran (Co-PI)	Modification of concrete structures by Bio-waste (Cow dung) to enhance the durability and anticorrosive Properties	Bioremediation, DBT, New Delhi	2013-2015	20,34,400/-	2yrs
4.	Dr.Vinita Vishwakarma (PI) & Mr. D.Ramachandran (Co-PI)	Nanophase modification of Fly ash concrete for enhancement of antibacterial, self -cleaning, corrosion resistance properties and durability	BRNS, Mumbai	2013-2016	24,19,650/-	3yrs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
5.	Dr.R.Rajesh Kannan(PI) & Dr.Vinita Vishwakarma (Co-PI)	Studies on β -lactamase Inhibiter(s) from streptomyces sp SBRK -1 and its effect on staphylococcus aureus infected zebra fish empyos.	DBT, New Delhi	2013-2016	42,30,000/-	3yrs
6.	Dr.R.Rajesh Kannan(PI) & Dr.Brijitta (Co-PI)	Fabrication of Neuro specific nanogels for targeted drug delivery molecular imaging and analysis in APO-E-GFP Zebra fish model	DBT, New Delhi	2013-2016	35,93,800/-	3yrs
7.	Dr.P.Kuppusami (PI) & Dr.Shyju (Co-PI)	Transmission Electron Microscopy of Compositionally Graded Coatings of YSZ/Ni-YSZ on Ni Base Superalloy for Nuclear Waste Vitrification Components	UGC-DAE CSR, Indore	2013-2016	11,00,000/-	3yrs
8.	Dr.P.Kuppusami (PI) & Dr.Shyju (Co-PI)	Development of Diffusion barrier coating of YSZ/Ni-YSZ on Ni-Based Superalloy by Electron Beam Evaporation for Applications in Nuclear Waste Processing.	BRNS,Mumbai	2013-2016	24,89,200/-	3 yrs
9.	Dr.J.Brijitta	Tunable Block Co-polymer Photonic Gels	(DST-SERC) Fast Track Scheme	2013-2015	27,00,000/-	3yrs.

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
10.	Dr.Vinita Vishwakarma & Dr.S.Ravichandran	Development of Carbon nanotube based epoxy composites	ADE, DRDO, Bangalore	2012-2014	9,31,000/-	2 yrs
11.	Dr.Shyju (PI) & Dr.Kuppusami (Co PI)	Development of thermal barrier coatings by electron beam physical vapor deposition	VSSC, Thiruvananthapuram	2014-2017	19,41,000	3 yrs
12.	Ms.Kalaiarasi (PI) & Dr.Rajesh Kannan(Mentor)	Molecular Studies on the β - amyloid plaque inhibiting molecules of Marine sponge Symbionts in Zebrafish (Daniorerio) Model	DBT, New Delhi.	2014-2017	28,90,000	3 yrs
13.	Dr.Madan Kumar(PI)	Screening and molecular characterization of FLK-1 inhibitor(s) from marine sponge symbionts and real time molecular imaging studies	SERB, DST, New Delhi.	2015-2018	22,89,600	3 yrs
14.	Dr.Brijitta(PI) & Mr.Ramchandran (Co PI)	Shear Thickening Dispersion of Monodisperse Colloidal Particles For Ballistic Protection	Armament Research Board, DRDO	2015-2018	23,61,250/-	3 yrs
15.	D.Ramachandran, Arul maximus Rabel & P. Kuppusami	High Temperature X-ray Diffraction Studies on Precipitation Behaviour of Ni and Fe Based Alloys	LPSC,ISRO	2015-2018	18,42,000	3yrs
16.	Mr. K. Viswanathan	Development of CNT Based Strain Sensor	LPSC (Bangalore) ISRO	2015-2018	19,55,000	3yrs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
17.	Dr. R. Beema Shafreen	Exploration of small peptides from marine echinoderms against Candidal amyloid proteins- using Zebra fish as model system	DST-SERB	2015-2018	25,90,000	3yrs
18.	Dr. P. Kuppusami (PI) & Dr. I. Neelakanta Reddy (Co-PI)	Development of Ba _x Sr _{1-x} TiO ₃ Tunable Dielectric Thin Films Prepared by Pulsed Laser Deposition	ISRO (VSSC)	2015-2018	24,67,000	3 Yrs
19.	Dr. A. Madan Kumar (PI) & Dr.R. Rajesh Kannan (Co-PI)	Studies on the Anticancer mechanisms of PI3K inhibitor(s) from marine sponge symbionts	DBT, Aquaculture and Marine biotechnology, New Delhi	2016-2019	28,67,853	3 Yrs
20.	Dr Vinita Vishwakarma (PI) & Mr. K. Gobi Saravanan (Co-PI)	Surface Modified Hybrid Bioimplants by Pulsed Laser Deposition to enhance the implant durability	DBT, Bioengg., New Delhi	2016-2019	30,11,800	3 Yrs
21.	Dr. S. Johnson Retnaraj Samuel	Identification and Characterization of molecular link between lamin A and Telomere in the context of aging	SERB – DST	2016 - 2019	27,50,000	3 Yrs
22.	Dr.R. Rajesh Kannan (PI)	Isolation and mass production of β -lactamase class proteins in efflux pump inhibitors against multidrug resistant pathogens from marine actinomycetes	MoES-CSIR(CDRI) (Drug from Sea)	2016-2019	45,16,800	3 Yrs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
23.	Dr.R. Rajesh Kannan (PI), T. Subramoniam & A Dayananadan	Steroidal control of vitellogenesis in the fresh water prawn <i>Macrobrachium rosenbergii</i> : lipogenesis and carotenoid metabolism relating to ovarian development and embryogenesis	DST (SERB) - Extra Mural Research Funding	2016-2019	41,65,000	3 Yrs
24.	Dr. R. Rajesh Kannan (Mentor)	Molecular studies on the β – amyloid plaque inhibiting molecule(s) of marine sponge Symbionts in zebrafish (<i>Danio rerio</i>) model	DBT (Bio-CARe-RGO Scheme) Mrs. Kalairasi	2015-2018	32,48,000	3 Yrs
25.	Dr. R. Rajesh Kannan (Mentor)	Insights the mechanism of ALK drug resistance in human lung cancer treatment and identification of potential inhibitor	DST (SERB)-NPDF Dr. Nagasundram	2016-2019	19,20,000	3 Yrs
26.	Dr. R. Rajesh Kannan (Mentor)	Development of multicolor fluorescent-sorbitol derivatives for blood brain barrier permeability and real time imaging studies in embryonic zebrafish	DST (SERB)-NPDF Dr. Rajsekhar	2016-2019	19,20,000	3 Yrs
27.	Dr. J. Brijitta	Colour switching electrochemically tunable pH responsive etalons	UGC- DAE, CSR	2016-2019	13,00,000	3 Yrs

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
28.	J. Brijitta (Supervisor)	Decontamination of toxic metals from waste water using agricultural wastes and its polymerization	UGC-Post Doctoral Fellowship for Women Dr. Preeti Goyal	2014-2016	14,16,000	3 Yrs
29.	Dr. J Brijitta (Mentor)	Synthesis, characterization and collective behaviour of Active particles	DST-Women Scientist-A Mrs. Reenu Mary Kuriakose	2016-2019	19,00,000	3 Yrs
30.	Mr. K. Gobi Saravanan	Recent Trends in thin film development and their applications in Biomedical and biosensor devices	DBT, New Delhi	2016-2017	6,00,000	1Yrs
Total					7,08,66,303 /-	

10. Inter-institutional collaborative projects and grants received

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Grant Received from	Amount	Duration
1	Dr.Vinita Vishwakarma (PI) Ms. J. Josephine Therasa (Co-PI)	Improving the Antimicrobial Properties of Condenser Material by Surface Modification using Nanotechnology	IGCAR Kalpakkam	IGCAR, DAE	Rs.15, 08,000 /-	2years (Completed)
2	PI: Dr.Vinita Vishwakarma, Co-PI: Mr. S S Samal	Detailed investigations of microbiological aspects of biodeterioration/biodegradation of concrete by sulphur oxidizing bacteria/fungi	IGCAR Kalpakkam	BRNS, Mumbai	Rs.19, 08,950/-	2years (Completed)
3	Dr.Vinita Vishwakarma (PI) &Mr.Ramachandran (Co-PI)	Nanophase modification of Fly ash concrete for enhancement of antibacterial, self-cleaning, corrosion resistance properties.	IGCAR Kalpakkam	BRNS, Mumbai	Rs.24, 19,650/-	3years (Ongoing)
4	D.Ramachandran,Arul maximus Rabel & P. Kuppusami	High Temperature X-ray Diffraction Studies on Precipitation Behaviour of Ni and Fe Based Alloys	LPSC, ISRO	ISRO	Rs.18, 42,000/-	3years (Ongoing)
5	Dr. P. Kuppusami (PI) and Dr. T.S.Shyju(Co-PI)	Transmission Electron Microscopy of Compositionally Graded Coatings of YSZ/Ni-YSZ on Ni Base Superalloy for Nuclear Waste Vitrification Components	UGC-DAE-CSR	UGC-DAE	Rs.11,00,000/-	3 years

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Grant Received from	Amount	Duration
6	Dr. P. Kuppusami (PI) and Dr. T.S.Shyju(Co-PI)	Development of Diffusion barrier coating of YSZ/Ni-YSZ on Ni-Based Superalloy by Electron Beam Evaporation for Applications in Nuclear Waste Processing	IGCAR, BRNS(DAE)	DAE-BRNS	Rs. 24,89,200/-	3 years
7	Mr. K. Viswanathan	Development of CNT Based Strain Sensor	LPSC, ISRO	ISRO	19, 55,000/	3 years
8	Dr. P. Kuppusami & Dr. I. Neelakanta Reddy	Development of $Ba_xSr_{1-x}TiO_3$ Tunable Dielectric Thin Films Prepared by Pulsed Laser Deposition	ISRO (VSSC)	ISRO	24, 67,000/	3 years
9	Dr. J. Brijitta	Color switching electrochemically tunable pH responsive etalons	IGCAR, Kalpakkam	UGC- DAE, CSR	24, 67,000/	3years (Ongoing)
10	Dr.Shyju & Dr.Kuppusami	Development of thermal barrier coatings by electron beam physical vapor deposition	VSSC	ISRO	19, 41,000/	3years (Ongoing)

11. Research facility / centre with state recognition, national international recognition : a) All India Collaboration b)International Collaboration

All India collaboration

S.No	Name of Principal Investigator	Name of the collaborating Institution	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.Vinita Vishwakarma & Ms. J. Josephine Therasa	Indira Gandhi Centre for Atomic Research, (IGCAR), Kalpakkam	Improving the Antimicrobial Properties of Condenser Material by Surface Modification using Nanotechnology	IGCAR, DAE	2008	15, 08,000	2
2.	Dr.Vinita Vishwakarma & Mr. S S Samal	Indira Gandhi Centre for Atomic Research, (IGCAR), Kalpakkam	Detailed investigations of microbiological aspects of biodeterioration/biodegradation of concrete by sulphur oxidizing bacteria/fungi	BRNS, Mumbai	2009	19, 08,950	2
3.	Dr.Vinita Vishwakarma & Mr. D.Ramachandran	Indira Gandhi Centre for Atomic Research, (IGCAR), Kalpakkam	Nanophase modification of Fly ash concrete for enhancement of antibacterial, self-cleaning, corrosion resistance properties	BRNS, Mumbai	2013	24, 19,650	3
4.	Mr.D.Ramachandran, Arul maximus Rabel & P. Kuppusami	LPSC, Trivandrum	High Temperature X-ray Diffraction Studies on Precipitation Behaviour of Ni and Fe Based Alloys	ISRO	2015	18, 42,000	3

S.No	Name of Principal Investigator	Name of the collaborating Institution	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
5.	Mr. K. Viswanathan	LPSC, Trivandrum	Development of CNT Based Strain Sensor	ISRO	2015	19, 55,000	3
6.	Dr. P. Kuppusami & Dr. I. Neelakanta Reddy	LPSC, Trivandrum	Development of Ba _x Sr _{1-x} TiO ₃ Tunable Dielectric Thin Films Prepared by Pulsed Laser Deposition	ISRO	2016	24, 67,000	3
					Total	1,20,97600/-	

International

S.No	Name of Principal Investigator	Name of the collaborating Institution	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.Vinita Vishwakarma	University of Ilorin, Nigeria	Effects of Rootzone Design and Nitrogen Fertilizer on Carbon Sequestration in Bermuda grass and St. Augustine Turfs	RTF-DCS, NAM,S&T	2015	2,70,000	6months
2.	Dr.Rajesh Kannan	University of Yaoundé I Cameroon.	Identification, Antimicrobial and Antitumoral Potential of Endophytic Actinomycetes of Some Cameroonian Medicinal Plants	RTF-DCS, NAM,S&T	2015	2,70,000	6months

S.No	Name of Principal Investigator	Name of the collaborating Institution	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
3.	Dr. Dayanand	Industrial Research and Consultancy Centre, Sudan	Production, Characterization & Purification of Protease from Thermophilic <i>Bacillus sp</i>	RTF-DCS, NAM,S&T	2015	2,70,000	6months
					Total	8,10,000	

12. Projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1.	Dr.Vinita Vishwakarma	Modification of concrete structures by Bio-waste (Cow dung) to enhance the durability and anticorrosive Properties	Bioremediation DBT, New Delhi	2013-2015	20,34,400/-	2
2.	Dr.R. Rajesh Kannan	Studies on β -lactamase Inhibiter (S) from Streptomyces sp SBRK-1 and its effect on Staphylococcus aureus infected zebrafish embryos	DBT, New Delhi	2013-2016	42,30,000/-	3
3,	Dr.R. Rajesh Kannan	Fabrication of Neuro specific nanogels for targeted drug delivery molecular imaging and analysis in APO-E-GFP Zebra fish model	DBT, New Delhi	2013-2016	35,93,800/-	3

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
4.	Ms.Kalaiarasi	Molecular Studies on the β - amyloid plaque inhibiting molecules of Marine sponge Symbionts in Zebrafish (Daniorerio) Model	DBT, New Delhi	2014-2017	28,90,000/-	3
5.	Dr. A. Madan Kumar (PI) & Dr.R. Rajesh Kannan	Studies on the Anticancer mechanisms of PI3K inhibitor(s) from marine sponge symbionts	DBT, Aquaculture and Marine biotechnology, New Delhi	2016-2019	28,67,853/-	3 Yrs
6.	Dr Vinita Vishwakarma & Mr. K. Gobi Saravanan	Surface Modified Hybrid Bioimplants by Pulsed Laser Deposition to enhance the implant durability	DBT, Bioengg., New Delhi	2016-2019	30,11,800/-	3 Yrs
7.	Mr. K. Gobi Saravanan	Recent Trends in thin film development and their applications in Biomedical and biosensor devices	DBT, New Delhi	2016-2017	6,00,000	1Yrs
Total					1,92,27,853/-	

13. Is your research centre or any facility recognized by a State/National/International body

Research Centre/Facility	State recognition	National recognition	International recognition
Centre for Nanoscience & Nanotechnology FESEM, EDAX, XRD, AFM, EBPVD, RF Sputtering etc.		VSSC, ISRO, Bangalore	
AFM Characterization (Topographical, Thickness and line profile roughness)		ISAC, ISRO Satellite Centre, Bangalore	

Research Centre/Facility	State recognition	National recognition	International recognition
Microstructural analysis	Central Leather Research Institute (CLRI), Chennai		
FESEM & cross section view	National Metallurgical Laboratory (NML), CSIR, Tharamani		
FESEM,EDAX		Indian Council of Agricultural Research, New Delhi	
FESEM & EDAX			Jeju National University, Korea
FESEM,EDAX		Central Institute of Plastics Engineering & Technology	
FESEM with EDAX, XRD	Indira Gandhi Centre for Atomic Research (IGCAR) Kalpakkam		
FESEM & EDAX	Seven Glocon India Pvt. Ltd, Chennai		
AFM & XRD		Nano Therapeutics Pvt. Ltd, Gujarat	
FESEM	Kemin Industries, Chennai.		
FESEM	Johnson & Johnson, Chennai		
FESEM & EDAX	Larsen & Toubro		
FESEM & EDAX, AFM, XRD	Renault Nissan, Chennai.		
FESEM & EDAX		IISC, Bangalore	
Carbonation Chamber and RCPT	Vels University, Chennai		
Coating	Maxon Power Pvt. Ltd., Nanganallur, Chennai		

Research Centre/Facility	State recognition	National recognition	International recognition
Microstructural analysis and EDS Mapping	Central Institute of Plastics Engineering & Technology		
High temperature X ray diffraction studies	FLSmith, Chennai.		
FESEM & EDAX	Gabriel India Pvt. Ltd, Hosur.		
FESEM with EDAX mapping	Kemin Industries, Chennai.		
FESEM & EDAX- Fractured Surface Analysis	Bimetal Berring Ltd, Huzur Gardens, Sembaiam, Chennai		
FESEM with EDAX, XRD	International Lab Services, Mambalam, Chennai		
Imaging the wear on steel samples	Indian Council of Agricultural Research, New Delhi.		
High temperature XRD, FESEM & EDAX – Microstructure analysis	Indian Piston Ltd., Chennai.		
EDAX	IP Rings Ltd., Malankarai, Tamilnadu		
FESEM, EDAX,XRD, AFM, Microsturcture, Surface roughness and crystallized size analysis	Orchid Chemicals & Pharmaceuticals, Chennai		
FESEM & EDAX Fractured Surface Analysis	Race TRIN Steeling System, Chennai.		
XRD & FESEM	SPEL Semi conductor Limited, Chennai		
FESEM & EDAX	Hospira Healthcare India Pvt. Ltd		

13. Special research laboratories sponsored by / created by industry or corporate bodies:

(* Equipment procured through sponsored research projects can also be included)

S.No	* Name of the Equipment	Agency Sponsored / Industry
1	Bioanalyzer 2100	DBT, New Delhi
2	Stereofluorescent Microscope	DBT, New Delhi
3	Micromanipulator	DBT, New Delhi
4	Laser Lamp	DBT, New Delhi
5	DC Magnetron Sputtering	Indira Gandhi Centre for Atomic Research, Kalpakkam
6	PCR	BRNS, Mumbai
7	Gel Documentation	BRNS, Mumbai
8	Carbonation Chamber	Bioremediation, DBT, New Delhi
9	Rapid Chloride Permeability Test (RCPT)	Bioremediation, DBT, New Delhi
10	UV – Visible-NIR Spectrophotometer Model V-670, Jasco, Japan	DST SERC, New Delhi

S.No	* Name of the Equipment	Agency Sponsored / Industry
11	Spin Coater	Indira Gandhi Centre for Atomic Research, Kalpakkam
12	Tubular Furnace	BRNS , Mumbai
13	CO ₂ incubator	DST SERB, New Delhi
14	PCR	DST SERB, New Delhi
15	EVOS Inverted Fluorescence Microscope	DST SERB, New Delhi
16	Keithley source meter	LPSC, ISRO

14. Publications

Number of papers published in peer reviewed journals (national / international) :154

Monographs - Nil

Chapters in Books - 4

Edited Books - 04

Books with ISBN with details of publishers - 02

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS / WOS - 128

Citation Index : 754

SNIP – Range : 0.43-1.653

SJR – Range : 0.18 - 2.77
 Impact Factor – Range : 0.514 – 8.262
 h-index : 14

15. Details of patents and income generated

S.No	Name of the Faculty	Title of the Patent	Application No	Patent No	Year	Date of Grant
1	P. Antony Premkumar and K. S. Nagaraja, P. Kuppusami, A.Dasgupta, V.S.RaghunathanC.Mallika and Baldev Raj	A glow discharge plasma based CVD technology for the production of Ni coatings and composite coatings of CrN and nickel	272/Che/2005			
2	P. Kuppusami, Arup Dasgupta, O.M. Sreedharan, Falix Lorrence, V.S.RaghunathanBaldev Raj, N. Nagaraja Antony Prem Kumar	A process for providing hard chromium nitride coating on substrates	37/MUM/01	198325	09/07/2001	17.1.2006
3	U. Kamachi Mudali, P. Kuppusami, V. R. Raju and V. S. Raghunathan,	An improved process for producing mixed oxide coated titanium electrodes having enhanced life in electrochemical applications and the electrodes so prepared	807/Bom/99	195371		17.11.1999

S.No	Name of the Faculty	Title of the Patent	Application No	Patent No	Year	Date of Grant
4	S. Arockiaswamy, P. Antony Premkumar, K.S. Nagaraja, V.S. Raghunathan, P. Kuppusami, C. Mallika, A.Dasgupta,	Pulsed DC plasma based CVD technology for the production of Ti metallic, TiN/Ni composite coatings using metalloorganic precursors of Ni and Ti	1012/CHE/2008			
5	R.Rajesh Kannan V.S.Priya Adharshini Samuel Gnana Prakash Vincet	Isolation purification and Characterization of a Novel Lectin from plant Madhuca Longifolia	1878/CHE/2010		02/07/2010	
6	R.Rajesh Kannan Samuel Gnana Prakash Vincet	Isolation of Novel Bioactive compound from Rhizophora mucronata for Methicillin resistant Staphylococcus aureus(MRSA) & Compound Toxicity Assessment in Zebra Fish Embryo	2246/CHE/2010		02/07/2010	
7	Brijitta Ramachandran Nixon Raj Viswanathan Gopi Saravanan Dr.T.Sasipraba Dr.Marie Johnon Dr.Mariazeena Johnson Col.Jeppiaar	UV Blocking Antiwrinkle Fabrics Using Nanoparticles	No: 4189/ CHE/2013		18/09/2013	

S.No	Name of the Faculty	Title of the Patent	Application No	Patent No	Year	Date of Grant
8	Dr.Brijitta Ramachandran Nixon Raj Viswanathan Gopi Saravanan Dr.T.Sasipraba Dr.Marie Johnon Dr.Mariazeena Johnson Col. Jeppiaar	Superhydrophobic Coatings Using Nanoparticles	No: 4191/ CHE/2013		18/09/2013	
9	Brijitta Ramachandra Nixon Raj Viswanathan Arul Maimus Dr.T.Sasipraba Dr.Marie Johnon Dr.Mariazeena Johnson Col. Jeppiaar	UV Blocking Non Wetting Fabric Using Nanoparticles	No: 4188 / CHE /2013		18/09/2013	

16. Areas of consultancy and income generated:

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned	Duration
1	VSSC, ISRO	Thin film Coatings & Characterization	15,44,098	2012 2013 2014 2015
2	CLRI	Thin film Coatings & Characterization	1,35,000	2012 2013 2014 2015
3	Indian Council of Agricultural Research, New Delhi.	Thin film Coatings & Characterization	25,000	2012
4	Central Institute of Plastics Engineering & Technology	Thin film Coatings & Characterization	51,500	2013
5	Indira Gandhi Centre for Atomic Research (IGCAR) Kalpakkam	Thin film Coatings & Characterization	78,600	2012 2013
6	ISRO Satellite Centre(ISAC), Bangalore	Thin film Coatings & Characterization	30,000	2014 2015
7	Vels university, Chennai	Concrete carbonation and durability	10,000	2016

17. Scientists selected nationally/ internationally to visit other laboratories in India and abroad

S. No	Scientist Name	Name of the laboratory / Institution	Duration	year
1.	Dr.R. Rajesh Kannan	European Bioinformatics Institute WT ,Genome Campus, Cambridge, UK	15 Days	2012
2.	Dr.R. Rajesh Kannan	University of Göttingen, Germany	3 Months	2015
3.	Dr.Vinita Vishwakarma	IGCAR, Kalpakkam & VSSC, Trivandrum	45 days (IGCAR), 3 days	2008-2016
4.	Dr.Kuppusami	IGCAR, Kalpakkam, Bhavini, Kalpakkam, BARC, Mumbai.	40 days	2013-2016
5.	Dr.Shyju	VSSC, Trivandrum	5 days	2014
	Dr.Brijitta	NCL, Pune	10 days	2015
6.	Dr.Madan Kumar	TRC(ICMR), CSIR, Taramani	2 days	2014
7.	Dr.Dhayanathan	CLRI, Chennai	5 days	2014
8.	Mr.Arul Maximus Rabel	NIIST, Thiruvananthapuram	5 days	2013
9.	Mr.Gopi Saravanan	CECRI, Karaikudi	4 Days	2014
10.	Mr.Pradhaban	IGCAR, Kalpakkam	10 days	2013-2014
11.	Mr.Neelakanta Reddy	ISAC, Bangalore, Amara Raja Batteries Limited, Chennai.	3 days	2014
12.	Mr.Sreedhar	Amara Raja Batteries Limited, Chennai.	3 days	2014
13.	Mr.P.Arjun	European Bioinformatics Institute WT ,Genome Campus, Cambridge, UK	10 days	2015
14.	Mr.D.Ramachandran	IGCAR, Kalpakkam	45 days	2011-2016
15.	Mr.Viswanathan	IIT Hyderabad	10days	2016

18. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)

S. No	Name of the Scientist	Name of the Steering Committee National / International
1	Dr.Vinita Vishwakarma	Institutional Biosafety Committee, Member, Sathyabama University
2	Dr.R.Rajesh Kannan	Biochemical Society, UK
3	Dr.Kuppusami	1. Vice Chairman, Technical Committee for the International Conference on Energy Materials, ICEM-2014. 2. Convener, International Conference on Nanoscience and Nanotechnology for Energy Applications(EApp-2016) 3. Member, Selection Committee and Doctoral committee of IGCAR

S. No	Name of the Faculty	Editorial board name of the journal
1.	J. Brijitta, K. Chennakesavulu	Materials Today Proceedings, Elsevier
2.	J. Brijitta,	International Journal of Nanoscience, World Scientific
3.	J. Brijitta	Journal of Biomimetics, Biomaterials and Biomedical Engineering, Trans Tech Publications

19. Awards / recognitions received at the national and international level by

S.No	Name of the event	Institution / organization	National / international	Date	Remarks / achievements
1.	Drug Discovery Programme	WT , UK	International	2012	Bursary grant for Small Molecule drug discovery programme
2.	Inside of the compound eye of a mosquito	Oxford Instruments Plasma Technology	International	2014	SEM Micrograph Competition
3.	Rod Shaped Silica Nanoparticles	Oxford Instruments Plasma Technology	International	2014	SEM Micrograph Competition
4	Silicon nitride+Tungsten anodized membrane Sub 30nm Iron Oxide Nanoparticles	Oxford Instruments Plasma Technology	International	2014	SEM Micrograph Competition
5	Sub 30nm Iron Oxide Nanoparticles	Oxford Instruments Plasma Technology	International	2014	SEM Micrograph Competition
6	Post Doctoral fellowship	University of Concepcion, Chile	International	2016	Dr.T.S.Shyju, Scientist-D
7	DFG- INSA Fellowship	University of Göttingen	International	2015	International Collaboration / Exchange Programme

20. Code of ethics for research followed by the Centre

Centre for Nanoscience and Nanotechnology was established at Sathyabama University in 2006 in association with IGCAR, Kalpakkam. The Centre functions routinely in submitting proposals for Research calls announced by National and International funding Agencies. The Scientists involved in research work follow ethics such as facts, originality, freedom of expression, responsibility, and professionalism laid out by the University. The work related to the

sanctioned Projects are taken up by the Investigators, Collaborators and Research fellows strictly abiding by the guidelines issued by the funding agencies with the objective of timely deliverables within the allotted budget. The outcome of research is expected to be delivered in terms of Publications, Prototypes, Patents and Products.

Research Values

First, norms promote the aims of research, such as knowledge, truth, and avoidance of error. For example, prohibitions against fabricating, falsifying, or misrepresenting research data promote the truth and minimize error.

The researchers begin their research at the Centres on agreeing to conduct themselves with the values outlined below

- Promotion of aims research such as knowledge, truth and avoidance of error.
- Great amount of cooperation and coordination among many different people in different disciplines and institutions
- Excellence in research
- Enhancing productivity of the research centres in terms of publications, patents, products through the research either agency or in-house funded
- Encouragement of e participation research and academic colleagues of other centres and departments in the university
- Credit for the contributions of the Individuals
- Fairness that builds trust
- Sharing of our resources
- Transfer of skills and knowledge
- Open-mindedness in approaching conflict
- Creativity and innovation
- Responsible use of available resources
- Encouragement of learning and development
- To follow social responsibility, human rights, animal welfare, compliance with the law, and public health and safety.
- Service to the nation

Research Principles

In all research situations researchers shall uphold and respect the principles of:

- Respect and protection
- Transparency
- Scientific and academic professionalism
- Accountability

21. Diversity of staff

Total number of Scientists	No of Scientists who are graduates of the same university	%	No of Scientists from other universities within the State	%	No of Scientists from universities from other States	%	No of Scientists from universities outside the country	%
16	NIL		14		2		NIL	

22. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period: (2007-14)

Name of the Scientists	Name of the Degree	Year
Dr.Brijitta	Ph.D	2011
Dr. T.S. Shyju	Ph.D	2012
Dr.Rajesh Kannan	Ph.D	2012
Dr.S.Johnson Retnaraj Samuel	Ph.D	2013
Dr.Madhan Kumar	Ph.D	2014

Dr.Beema Shafreen	Ph.D	2014
Dr.Neelakanta Reddy	Ph.D	2015
Dr.Sankar Paneerselvam	Ph.D	2016

23. List of doctoral, post-doctoral students and Research Associates:

a) Doctoral students: 19

b) Post-doctoral Fellows: 04

24. Briefly highlight the contributions of the Centre in generating new knowledge, basic or applied.

Fabrication of photovoltaic solar cells based on copper-zinc-tin-sulphur (CZTS) absorber thin films on n-type silicon wafers have been carried out by magnetron sputtering to achieve enhanced efficiency. Graded coatings of Ni-YSZ on superalloy substrates were developed and their nanomechanical properties for applications in nuclear waste processing were investigated. Tunable dielectrics based on B-Sr-T-O thin films were fabricated by pulsed laser deposition. Several monolayers to a few micron thick metallic coatings based on titania and copper on bio-compatible substrates were produced with excellent anti-bacterial properties. Thermal barrier coatings with yttria stabilized zirconia (YSZ) coatings as top coat for aerospace applications have been developed. A significant contribution has been made in the areas of drug delivery of neuroactive and cardioactive small molecules in wild and transgenic zebrafish model system. Development and functional genomic research for therapeutic drug delivery and small molecule screening from marine sources have been established. An important contribution was the cost effective production of umbrellas using nano particles which protect people from ultra violet radiation and rain water efficiently.

25. Future plans of the Centre:

The future plans of the centre are to undertake the research and development projects in various area of nanotechnology. In addition, to conduct training program, workshops, conferences in recent developments of nanoscience on various them of national and international interest. The centre also takes consultancy work from various institute and industries.

The Centre plans to focus on energy materials, in particular, the development of cost effective solar absorber materials with high efficiency and fabrication of doped ceria electrolytes for high performance low temperature solid oxide fuel cells. Self-cleaning windows for photovoltaic solar cells and solar thermal panels to improve conversion efficiency and to avoid deposition of organic molecules on the solar panel surface. Wear resistant hard coatings for ball bearings will be developed and their nanomechanical properties will be evaluated. by Several bio-active and bio-compatible coatings such as doped zirconia, multilayers based on transition metal nitrides and hydroxyl apatite will be developed for biomedical applications. A serious effort will be made in the study of bio-corrosion in concrete for nuclear reactor applications and development of tunable block co-polymer photonic gels. Establishment of nano bio-photonic facility, ultrastructure imaging and nano-laser surgery for cardiovascular biology, cancer biology and infectious diseases.

26. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the Centres.

The Centre has state-of the art infrastructure facilities to facilitate nanoscience and nanotechnology research in the following areas

Material Science

Chemical Science

Molecular and Nanomedicine Research Facility

Zebra fish Research Facility

The Centre has the following excellent characterization facilities mentioned that consistently offer consultancy services for self sustainability:

- Pulsed Laser Deposition (PLD) - Microtech Srl, Italy
- RF Magnetron Sputtering - Plassys, France
- DC Magnetron Sputtering - Hind High Vacuum, Bangalore
- Thermal Evaporator - Hind High Vacuum, Bangalore
- Chemical Vapor Deposition (CVD) - Mansha Vacuum Technologies, Bangalore
- E-Beam Evaporator - Plassys, France
- X-Ray Diffractometer (XRD-SMART lab) - Rikagu, JAPAN
- Field Emission Scanning Electron Microscope(FESEM-SUPRA 55) - CARL ZEISS,
- Atomic Force Microscope(AFM) - NTMDT, Ireland
- Optical microscope - OLYMPUS, Japan
- Epifluorescence Microscope - Nikon, Japan
- Precision Cutting Machine - STRUERS, Denmark
- Polishing Machine - STRUERS, Denmark
- Ball Mill - Mansha Vacuum Technologies, Bangalore
- UV – Visible-NIR Spectrophotometer Model V-670, Jasco, Japan
- Carbonation Chamber
- Rapid chloride permeability test

An excellent team of scientists with expertise in Materials Science, Surface Engineering, Photonics, Environmental nanotechnology, Plant Pathology, Cytogenetics, Medical Nanotechnology, Nanosensors, Molecular medicine and Functional Genomics, Materials Chemistry, Imaging and Microscopy

The main strengths of the Centre are the availability excellent infrastructure, adequate equipments and staff to carry out the research in the projects funded by Govt. agencies. The Centre also periodically conducts workshops, theme meetings, and awareness programmes, national and international conferences to update the research skill of the staff members. There are several opportunities for the Young researchers to get training in advanced equipments and to take up challenging areas and to do Ph.D programmes. The weakness of the Centre relates to in -adequate e-literature and senior scientists to mentor budding researchers.

- 1.Name of the Centre** Centre for Ocean Research
- 2.Year of establishment** : 2007
- 3.Courses in collaboration with other universities, industries, foreign institutions, etc.** Nil
- 4.Participation of the department in the courses offered by other departments:** Nil
- 5.Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

S. No.	Name of the Faculty	Qualification	Designation	Area of specialization	Experience (years)	Research students under guidance
1.	Dr.S.R.Radhika Rajasree	M.Sc., Ph.D.,	Scientist-E & In Charge	Mariculture and Marine Biodiversity,	16 years	- 5
2.	Dr. D. Inbakandan	M.Sc., Ph.D.,	Scientist-E	Marine Biotechnology	16 years	4
3.	Dr. L. Stalney Abraham	M.Sc., Ph.D.,	Scientist –E	Marine Microbial Technology	15 years	2
4.	Dr. V. Ganesh Kumar	M.Sc., M.Phil.,Ph.D	Scientist -E	Material Chemistry	12 years	3
5.	Dr. K. Govindaraju	M.Sc., M.Phil.,Ph.D	Scientist –D	Drug Development	10 years	3
6	Dr. V. Parameswaran	M.Sc., M.Phil.,Ph.D	Scientist-D	Fish Stem Cell Biology	12 years	1

7	Dr.Suchithra Sundaram	M.Sc.,M.Tech	Scientist-D	Monsoon Dynamics, Air Sea interaction, Paleoclimate Modelling Studies	14 years	-
8	Dr. M. Ravi	M.Sc.,Ph.D.,PDF.	Research Scientist	Aquatic Animal Medicine	9 years	-
9	Dr. T. Stalin Dhas	M.Sc.,Ph.D.,	Senior Scientific Assistant	Nanobiotechnology	5.8 years	-
10	Dr. V. Karthick	M.Tech.,Ph.D	Senior Scientific Assistant	Nanobiotechnology	5.1 years	-
11	Mr. T .Y. Suman	M.Sc.,B.Ed (Ph.D)	Senior Scientific Assistant	Ecotoxicology	4 years	-
12	Mr. C .Kumar	M.Sc.,M..Phil (Ph.D)	Scientific Assistant	Marine Biotechnology	4.8 years	-
13	Mr.R.Thirugnanasambandam	M.Sc (Ph.D)	Scientific Assistant	Enzyme Technology	6.6 years	
14	Dr. A. Veeruraj	M.Sc.,M.Phil.,Ph. D.	Scientific Assistant	Marine Pharmacology	10 years	
15	Ms. Remya. R. R	M.Tech (Ph.D)	Technical Assistant	Macro algal product development	4 years	
16	Dr. S. Seshadri	M.Sc.,Ph.D.	TBI Co-ordinator	Biotechnology and Microbiology	26 years	
17	Mr. Karthik Sekar	M.B.A., PGDIB	TBI-Manager	Business Administration	12 years	
18	Ms. Gayathri. S	M.Sc.,M.Tech (Ph.D)	Technical Assistant	Macro algal Product Development	4 years	

6. List of senior visiting fellows, adjunct faculty, emeritus professors

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1	Dr. G. Gopakumar Emeritus Scientist	Research Centre of CMFRI, Vizhinjam, Trivandrum	2015
2	Dr. A.S. Ninawe Advisor	Department of Biotechnology, New Delhi	2015
3	Prof. T. Balasubramanian Former Dean and Director	CASMB, Annamalai University	2015
4	Dr. E. Vivekanandan Emeritus Scientist & Consultant	CMFRI, Chennai	2015
5	Dr. Rabmir Singh Scientist-D	DST, New Delhi	2015
6	Dr. Rajeev Sharma Scientist-D	DST, New Delhi	2016
7	Dr. D. Chandramohan Former Deputy Director	NIO, Goa	2016
8	Dr. B. Venkatraman OS and Associate Director	RSEG, IGCAR, Kalpakkam	2016

7. Research thrust areas as recognized by major funding agencies

S. No.	Thrust areas of Research	Funding Agencies
1.	Studies of ecotoxicology of engineered nanoparticles in selected marine organisms.	DBT
2.	Stabilization and utilization of trash fish and fish processing waste as a slow release nitrogenous organic fertilizer for increased production in vegetable farming	DST
3.	Monitoring of bioavailability, toxicity and trophic transfer of manufactured metal oxide nanoparticles in marine ecosystem	International Foundation for Science
4.	Land based closed cycle culture of Indigenous sea urchin species and development of post harvest protocols for preservation of roes	MoES
5.	Technology Business Incubator	DST
6.	Antibacterial activity of Actinomycetes against pathogenic <i>Vibrio harveyi</i> and its protective efficacy in penaeid shrimp	DST-SERB
7.	Isolation, Culture and Characterization of Fish Embryonic Stem Cells and Their Application in Transgenesis	DST-SERB
8.	Awareness, Survey and Conservation of Rays in Indian Coast Lines	The Rufford Foundation- UK
9.	Utilization of steel plant waste in the manufacture of paver blocks and slag foams	Ministry of Steel
10.	Biologically synthesized gold nanoparticles using seaweed <i>Sargassum</i> spp for antidiabetic studies	DST

S. No.	Thrust areas of Research	Funding Agencies
11.	Microbial ensilation and co-fermentation of shell wastes for extraction of biopolymer	DST
12.	Oral delivery and immunomodulatory effect of quercetin loaded chitosan tripolyphosphate nanoparticles in <i>Vibrio harveyi</i> challenged shrimp, <i>Penaeus monodon</i> and its immune-related gene expressions	DST
13.	Studies on the effect of PFBR on biological life before and after commissioning	Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI),DAE
14.	Studies on adsorption characteristics of radionuclides by phyco-colloids of seaweeds	Atomic Energy Regulatory Board
15.	Biofabrication of gold nanoparticles as potent anti-breast cancer drug	DST-SERB, New Delhi
16.	Biological evaluation of functionalized gold nanoparticles as potent anti-diabetic agent in regulating glucose transport using <i>in vitro</i> model	DAE-BRNS
17.	Nano micronutrients: preparation and foliar application in agriculture	ICAR, New Delhi
18.	Studies on the impact of elevated levels of water temperature and acidity on the developmental stages, biochemical, immunological and molecular responses in marine organisms (<i>artemia</i> , rotifer and <i>Penaeus vannamei</i>) as model	ICAR-NICRA, New Delhi
19.	Studies on the anticancer potential of venom proteins from jellyfish species and their structural characterization	DBT, New Delhi

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned	Amount Released	Status
1.	Radhika Rajasree,S.R. – PI	Land based closed cycle culture of Indigenous sea urchin species and development of post harvest protocols for preservation of roes	MoES	3 years	Rs.56,59,375/-	Rs.34,75,775/-	Ongoing
2.	Dr.B .Sheela Rani, Dr. Radhika Rajasree S.R. Dr.D Inbakandan Dr.L.Stanley Abraham Dr.V.Ganesh Kumar	Technology Business Incubator	DST	5 years	Rs.158.275	134.225	Ongoing
3.	Dr. Ravi Mani	Antibacterial activity of Actinomycetes against pathogenic <i>Vibrio harveyi</i> and its protective efficacy in penaeid shrimp	DST-SERB	3 Years	8,50,000/-	5,50,000/-	Ongoing
4.	Dr. V. Parameswaran	Isolation, Culture and Characterization of Fish Embryonic Stem Cells and Their Application in Transgenesis	DST-SERB	3 years	23,80,000/-	11,00,000/-	Ongoing

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned	Amount Released	Status
5.	Dr. V. Ganesh Kumar	Utilization of steel plant waste in the manufacture of paver blocks and slag foams	Ministry of Steel	3 years	73,00,000/-	66,29,000/-	Ongoing
6.	D. Inbakandan	Oral delivery and immunomodulatory effect of quercetin loaded chitosan tripolyphosphate nanoparticles in <i>Vibrio harveyi</i> challenged shrimp, <i>Penaeus monodon</i> and its immune-related gene expressions	DST	2 Years	21,00,000	16,00,000	Ongoing
7.	Dr. L. Stanley Abraham	Studies on adsorption characteristics of radionuclides by phyco-colloids of seaweeds	Atomic Energy Regulatory Board	2 Years	37, 07, 800/-	29, 01, 400/-	Ongoing
8	Dr.K.Govindaraju	Biological evaluation of functionalized gold nanoparticles as potent anti-diabetic agent in regulating glucose transport using <i>in vitro</i> model	DAE-BRNS	Three Years	17,23,000	Rs.10,69,617	Ongoing

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned	Amount Released	Status
9	Dr.K.Govindaraju	Nano micronutrients: preparation and foliar application in agriculture	ICAR, New Delhi	1 Year Three months	Rs.11,90,000	Rs.7,86,800	Ongoing
10	Dr.K.Govindaraju	Studies on the impact of elevated levels of water temperature and acidity on the developmental stages, biochemical, immunological and molecular responses in marine organisms (artemia, rotifer and <i>Penaeus vannamei</i>) as model	ICAR-NICRA, New Delhi	Three Years	Rs.31,00,000	Rs.7,65,000	Ongoing
11	Dr.K.Govindaraju	Studies on the anticancer potential of venom proteins from jellyfish species and their structural characterization	DBT, New Delhi	Three Years	Rs. 30,00,000/-		Recommended

9. Inter-institutional collaborative projects and associated grants received : Rs.1,26,22,200/-

S.No	Name of the Investigators	Title	Collaborator	Duration	Amount	Status
1	PI: Dr. S. R. Radhika Rajasree Co-PI: Dr.Ganesh kumar.V	Studies of ecotoxicology of engineered nanoparticles in selected marine organisms.	Dr..Venkatesan .R. NIOT	3 years	Rs.21,78,000/-	Completed
2	D. Inbakandan	Studies on the effect of PFBR on biological life before and after commissioning	Shri. L.Swamiraju Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI),DAE	2 Years	14,03,000	Completed
3	Dr. L. Stanley Abraham	Microbial ensilation and co-fermentation of shell wastes for extraction of biopolymer	Dr.R.Kirubakaran NIOT	2Y 6M	16, 96, 800/-	Completed
4	Dr.V.Ganesh Kumar	Biological synthesis of gold nanoparticles using seaweeds for antidiabetic studies	Dr..Venkatesan .R. NIOT	3 years	Rs.24,39,800/-	Completed

S.No	Name of the Investigators	Title	Collaborator	Duration	Amount	Status
4	Dr. L. Stanley Abraham	Studies on adsorption characteristics of radionuclides by phyco-colloids of seaweeds	Dr.V.P. Venugopalan Atomic Energy Regulatory Board ,DAE	2 Years	37, 07, 800/-	Ongoing
5	Dr.K.Govindaraju	Nano micronutrients: preparation and foliar application in agriculture	Prof.K.S.Subramanian (TNAU) ICAR	1 Year Three months	Rs.11,90,000	Ongoing

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received: Rs. 12,57,27,177/-

11. Research facility / centre with state recognition, national international recognition

Indiragandhi Centre for Atomic Research Centre

12. Publications

Number of papers published in peer reviewed journals (national / international) : **98**

Monographs - **Nil**

Chapters in Books - **6**

Edited Books - **Nil**

Books with ISBN with details of publishers – **6**

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 82 ; WOS - 52

Citation Index : 964

SNIP – Range : 0.372-1.42

SJR – Range : 0.175-2.128

Impact Factor – Range : 0.32-5.08

h-index : 04

13. Details of patents and income generated

S.No.	Title of the Invention	Inventors	Date of filing	File No.	Date of Grant	Patent No.	Year
1	<i>Kappaphycus alvarezii</i> sap extractor	1) LOUIS STANLEY ABRAHAM 2) DHINAKARASAMY INBAKANDAN 3) THANKAPPAN SASIPRABA 4) BALASUBRAMANIAN SHEELA RANI 5) DR. JEPPIAAR	06/05/2011	Application No.1584/CHE/2011 A Publication Date : 10/06/2011	-	-	-

14. Areas of consultancy and income generated: Characterization 1,49,865INR

Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad:

Name of the faculty	Nature of Visit	Sponsoring agency	Duration	University/Institution
Mr.C. Kumar	International Training Course on Mangrove Ecosystem	United Nations University (UNU) and Institute for Water, Environment & Health (INWEH), Canada	October 27 th to November 10 th 2014	Centre of advanced study in marine biology, Annamalai University, Chidambaram
Mr.C. Kumar	National Training course	ICAR- NBFGR	July 18-27, 2016	ICAR- National Bureau of Fish Genetic Resources- Lucknow

15. Faculty serving in

a. National committees b) International committees c) Editorial Boards d) any other (please specify)

Name of the faculty	Organization/Committee or Journal Name	Type of Association	Duration
Dr. Radhika Rajsree S R	Elsevier –Ecotoxicology and Environmental Safety	Reviewer (Research Articles)	---
	Elsevier-Aquatic Toxicology		
	Elsevier-Material Science & Engineering C		
	Elsevier-Engineering in Agriculture, Environment and Food		
	Elsevier-Spectrochimica Acta –Part A Molecular & Biomolecular Spectroscopy		
	Elsevier- Journal of King Saud University (Science) - JKUS-D-13-00298R2		
	PLOS ONE (PONE-D-14-55039)		
	NISCAIR- Indian Journal of Fisheries		
	NISCAIR- Indian Journal of Geo-Marine Sciences		

Name of the faculty	Organization/Committee or Journal Name	Type of Association	Duration
Dr. V. Ganesh Kumar	Materials Research Bulletin	Reviewer (Research Articles)	---
	Powder Technology		
	Colloids and Surfaces B: Biointerfaces		
	Surface and Coatings Technology		
	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy		
	Ceramics International		
	Arabian Journal of Chemistry		
	International Journal of Biological Macromolecules		
	Journal of Chemical Technology & Biotechnology		
	Clean - Soil, Air, Water		
	Brazilian Journal of Microbiology		
	Journal of Nanobiotechnology		
	International Journal of Nanomedicine		
	Biochemistry and Cell Biology		
Advances in Colloid and Interface Science			

Name of the faculty	Organization/Committee or Journal Name	Type of Association	Duration
Dr. K.Govindaraju	Molecular Therapy-Nucleic Acids (Nature publishing group)	Reviewer (Research Articles)	---
	Journal of Nanoscience		
	(Hindawi Publishing Corporation)		
	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (Elsevier)		
	Aquaculture Research (Wiley Interscience)		
	Materials Science and Engineering C (Elsevier)		
Dr. D.Inbakandan	Colloids and Surfaces A: Physicochemical and Engineering Aspects	Reviewer (Research Articles)	---
	Colloids and Surfaces B: Biointerfaces		
	Science of the Total Environment		
	Proceedings of the National Academy of Sciences, Biological Sciences (NASB)		
Dr. A.Veeruraj	Environmental Toxicology and Pharmacology- Elsevier	Reviewer (Research Articles)	---
	Hazardous Materials- Elsevier		
	Process Biochemistry- Elsevier		
	International Journal of Biological Macromolecules- Elsevier		
Mr.T.Y.Suman	Journal of Radiation Research & Applied Sciences	Reviewer (Research Articles)	---

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Sl.No	Agency	Name of the Investigator	Title	Duration
1	Sathyabama University	Centre for Ocean Research	1 st Workshop on Fish cell culture techniques No. of Participants: 5	2 days 24 th -25 th of July 2015
2	Sathyabama University	Centre for Ocean Research	1 st Advanced training program on Spectroscopy and Microscopy No. of participants: 36	3 days 12 th -14 th August 2015
3	Sathyabama University	Centre for Ocean Research	2 nd Advanced training program on Spectroscopy and Microscopy No. of participants: 13	2 days 29 th -30 th October 2015
4	Sathyabama University	Centre for Ocean Research	3 rd Advanced training program on Spectroscopy and Microscopy No. of participants:39	2 days 13 th &15 th April 2016
5	Sathyabama University	Centre for Ocean Research	2 nd Workshop on Fish cell culture techniques No. of Participants: 5	2 days 3 -4 th of November 2015

6	Sathyabama University	Centre for Ocean Research	1st Workshop cum Training on Biotechnological Tools & Techniques in Aquaculture	1 day 15 th October 2015
7	Sathyabama University	Centre for Ocean Research	^{3rd} Workshop on Fish cell culture techniques No. of Participants: 5	2 days 29 & 1 st of March 2016

18. Awards / recognitions received at the national and international level by

Name of the faculty	Award Received	Agency	Type of Recognition	Place and Year of award
Dr.K.Govindaraju	National Excellence award in "Nanomedicine"	Life Science Foundation of India - Government of India	National	2015

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S. No.	Name of the convener	Title of the workshop	Sponsoring agency	Duration	Participants
1	Centre for Ocean Research-TBI	Training on Seaweed Cultivation	DST/NSTEDB	2 days 27 th -28 th July 2015	Coastal womens

S. No.	Name of the convener	Title of the workshop	Sponsoring agency	Duration	Participants
2	Dr, Rajeshwari.M.V Dr.Radhika Rajasree S.R ,	National Fisheries Development Board	NFDB	15 th -20 th April 2015 22 nd 25 th June 2015 29 th June – 2 nd July 2015 6 th -9 th July 2015 3 rd – 6 th August 2015 10 th -14 th August 2015 24 th -28 th August 2015 7 th -11 th September 2015 28 th Sep. – 3 rd October 2015 2 nd November – 6 th November 2015.	Coastal womens
3	Dr. V. Parameswaran	1 st Workshop on Fish cell culture techniques	Sathyabama University	2 days 24 th -25 th of July 2015	Students/Research Scholar No. of Participants: 5
4	Centre for Ocean Research	1 st Advanced training program on Spectroscopy and Microscopy	Sathyabama University	2 days 29 th -30 th October 2015	Students/Research Scholar No. of Participants: 13
5	Centre for Ocean Research	3 rd Advanced training program on Spectroscopy and Microscopy	Sathyabama University	2 days 13 th &15 th April 2016	Students/Research Scholar No. of participants:39

S. No.	Name of the convener	Title of the workshop	Sponsoring agency	Duration	Participants
6	Dr. V. Parameswaran	2 nd Workshop on Fish cell culture techniques	Sathyabama University	2 days 3 -4 th of November 2015	Students/Research Scholar No. of Participants: 5
7	Centre for Ocean Research	1 st Workshop cum Training on Biotechnological Tools & Techniques in Aquaculture	Sathyabama University	1 day 15 th October 2015	Students/Research Scholars
8	Dr. V. Parameswaran	3 rd Workshop on Fish cell culture techniques No. of Participants: 5	Sathyabama University	2 days 29 & 1 st of March 2016	Students/Research Scholars

Conferences:

Sl.No	Agency	Title	Amount Sanctioned	Duration	Remarks
1	Department of Biotechnology	National Conference on New Trends in Biomedical and Pharmaceuticals Application of Marine Natural Products (NCMNP-2016)	Rs. 50,000/-	2 days(10 th to 11 th August 2016)	Completed

20. Code of ethics for research followed by the departments :

The main purpose of the Centre for Ocean Research is innovation and application of high end biotechnologies upon Marine Bio Resources of Indian Coast for genetic characterization, assessment, conservation and bio-prospection of and potent bioactive molecules for sustainable utilization, Intellectual Property Rights, economical benefits and Posterity. The centre is working with a mission of promote, support and facilitate the research to utilize the marine resources with biotechnology relevant discipline and to improve the quality of human resources by organizing the interaction of biotechnology industries with effective measure for societal applications.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

S.No	Name of the doctoral student	*Qualification	Name of the guide	Thesis Title	Funding Agency	Date of Joining and duration
1.	Dr.R.Bhattacharya	Ph.D	Dr.V.Ganesh Kumar	Risk Assessment and Development of Prioritization of Risk through Simulation For Chemical Plants	-	4 Years
2.	Dr.V.Karthick	Ph.D	Dr.V.Ganesh Kumar	Biosynthesis of gold nanoparticles using antidiabetic plants and its evaluation	DST-Nanomission	4 Years
3.	Dr.T.Stalin Dhas	Ph.D	Dr.V.Ganesh Kumar	Biologically synthesized gold nanoparticles using Sargassum spp., and its evaluation for biomedical applications	DST-Nanomission	4 Years

22. List of doctoral, post-doctoral students and Research Associates

S.No	Name of the JRF/SRF	*Qualification	Name of the PI	Project Title	Funding Agency	Total cost (Rs.)	Sanctioned Year & Duration	Date of Joining	Date of Expiry	Present Salary (Rs.)
1.	J.Baalamurugan (JRF)	M.Sc	Dr. V. Ganesh Kumar	Utilization of steel plant waste in the manufacture of payer blocks and slag foams	Ministry of Steel	Rs. 73,00,000/-	2013 & 3 years	06.02.2014	05.02.2017	Rs. 15,000/-
2.	R.Vasantharaja (JRF)	M.Tech	Dr. L. Stanley Abraham	Studies on adsorption characteristics of radionuclides by phyco-colloids of seaweeds	AERB	37,07,800/-	2015 & 2 years	10.8.2015	10.08.2017	32,500/-
3.	Aranganathan. L (Project Fellow)	M.Sc	Dr. Radhika Rajasree S R	Land based closed cycle culture of indigenous sea urchin species and post harvest protocols for the preservation of roes	MoES	Rs.56,59,375/-	2014 & 3 years	10.03.2016	09.03.2019	Rs. 15,000/-

S.No	Name of the JRF/SRF	*Qualification	Name of the PI	Project Title	Funding Agency	Total cost (Rs.)	Sanctioned Year & Duration	Date of Joining	Date of Expiry	Present Salary (Rs.)
4.	Karthih. M.G (Project Fellow)	M.Tech	Dr. Radhika Rajasree S R	Land based closed cycle culture of indigenous sea urchin species and post harvest protocols for the preservation of roes	MoES	Rs.56,59,375/-	2014 & 3 years	10.03.2016	09.03.2019	Rs. 15,000/-
5.	M. Gobala Krishnan (JRF)	M.Sc	Dr. Radhika Rajasree S R	Land based closed cycle culture of indigenous sea urchin species and post harvest protocols for the preservation of roes	MoES	Rs.56,59,375/-	2014 & 3 years	01.04.2016	09.03.2019	Rs. 32,500/-
6.	Jyotsna (JRF)	M.Tech	Dr. V. Parameswaran	Isolation,culture and characterization of fish embryonic stem cells and their application in transgenesis	DST-SERB	23,80,000	2015 & 3 years	6.04.2016	31.3.2019	Rs. 25,000/-

S.No	Name of the JRF/SRF	*Qualification	Name of the PI	Project Title	Funding Agency	Total cost (Rs.)	Sanctioned Year & Duration	Date of Joining	Date of Expiry	Present Salary (Rs.)
7.	Subashni B (JRF)	M. Sc.,	Dr. D. Inbakandan	Oral delivery and immune-modulatory effect of Quercetin-loaded Chitosan nanoparticles in <i>Vibrio harveyi</i> challenged shrimp <i>Penaeus monodon</i> and its immune related gene expression	DST-SERB	Rs. 21,00,000/-	2014 & 3 years	02.05.2016	26.10.2017	Rs. 13,800/-
8.	K.S. Uma Suganya (JRF)	M.Tech	Dr. K. Govindaraju	Biological evaluation of functionalized gold nanoparticles as potent anti-diabetic agent in regulating glucose transport using <i>in vitro</i> models	DAE-BRNS	Rs. 17,23,000/-	2014, 3 years	01.06.2016	01.11.2017	Rs. 16,000/-

S.No	Name of the JRF/SRF	*Qualification	Name of the PI	Project Title	Funding Agency	Total cost (Rs.)	Sanctioned Year & Duration	Date of Joining	Date of Expiry	Present Salary (Rs.)
9.	Dr. S.Tamilselvan (SRF)	Ph.D	Dr. K. Govindaraju	Nano micronutrient preparation and foliar application in agriculture	ICAR	11,96,000	2016 & 1 year	04.07.2016	03.07.2017	Rs. 36400/-

Post Doctoral Students

S.No	Name	Qualification	Mentor
1	Dr.M.V.Rajeswari	M.Sc., Ph.D	Dr.S.R. Radhika Rajasree
2	Dr.S.Nalini	M.Sc., Ph.D	Dr.D.Inbakandan
3	Mr.C.Jayaseelan	M.Sc., Ph.D	Dr.S.R. Radhika Rajasree

23. Number of post graduate students getting financial assistance from the university:

Nil

24. Highlight the participation of students and faculty in extension activities.

- ❖ Marine ornamental culture
- ❖ DST-INSPIRE programme conducted on 30th July 2012
- ❖ International Conference on Climate Change and Adaptation (ICCECO-2011) funded by MoES, New Delhi Training programme on Mushroom cultivation for Women self help group during 5-7, February 2014 sponsored by Department of Science and Technology, NSTDEB, (Govt. of India), New Delhi
- ❖ Seaweed farming in Muttom Fisheries Harbour site (From 2010- present), Sponsored by Sathyabama University, Chennai
- ❖ Workshop on Dissemination of Innovative Technology 2011, Organic aquaculture through EM technology - economical and eco friendly solution” during 10.01.2011 to 12.01.2011. Sponsored by Tamil Nadu state council for science and Technology, Chennai.
- ❖ 1st Lecture Series for the Popularization of Biotechnology - 17th &18th July, 2009 sponsored by Department of Biotechnology (Govt. of India), New Delhi
- ❖ 2nd Lecture Series for the Popularization of Biotechnology - 2-3rd September, 2010 sponsored by Department of Biotechnology (Govt.of India), New Delhi
- ❖ 3rd Lecture Series for the Popularization of Biotechnology – 29th February , 2012 sponsored by Department of Biotechnology (Govt.of India), New Delhi
- ❖ 4th Lecture Series for the Popularization of Biotechnology – 6th March , 2013, sponsored by Department of Biotechnology (Govt. of India), New Delhi
- ❖ +5th Lecture Series for the Popularization of Biotechnology – November 27th 2013, sponsored by Department of Biotechnology (Govt. of India), New Delhi

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Center for Ocean Research (COR) is one of the research and innovation centres managed by Sathyabama University to focus on Marine Science Research and Technology. Our Center has been established in 2007 in collaboration with National Institute of Ocean Technology, mission to encourage targeted sectors of Ocean Research. The primary task of the Center is to find short term as well as long term Government sponsored projects to explore the ocean through basic, applied and operational field research. The COR plays a key role in marine research and development through trainings/workshops and transfer of technology. It also gathers and disseminates knowledge to public in the major areas of Mariculture, Marine Technology and Engineering, Marine Ecology, Marine Nanotechnology, Marine Biotechnology, and Marine Education & Extension. COR had generated national projects from Dept .of Biotechnology, Dept. of Science and Technology, BHAVINI, BRNS, Ministry of Steel and international project from International Foundation for Science (Sweden). In addition, COR lend its expertise to support the Marine Natural Resources in India in its decision-making activities including formulating policies, developing programs and regulations, and setting/managing standardization criteria for better utilization of the sea.

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

- a) Strength : Group Activities , good publications, research projects form multidisciplinary schemes
- b) Weakness : Eligibility to apply for UGC funding such as SAP , Major and minor projects
- c) Opportunities : Exploring vast research areas in marine science
- d) Challenges : International research collaborations, mutual exchange of students from foreign universities

27. Future plans of the department.

- ❖ To initiate bioprospecting programs of some marine species for potent bioactive molecules & compounds of therapeutic and industrial importance.
- ❖ To develop a common platform for Linkages with agencies/ institutions / industries etc. on state, national & international levels for collaborative research projects.
- ❖ To prepare digital data bases of Marine Bioresources.
- ❖ To develop infra structure facilities for applications of high end biotechnologies.
- ❖ To characterize the selected marine organisms for Molecular Taxonomy, Phylogenies and Genetic Biodiversity.
- ❖ To develop a Gene Bank and a Tissue Repository for conservation of resources.
- ❖ To participate in international marine research programs of relevance.
- ❖ To create awareness and disseminate new knowledge attained about Marine Biota.
- ❖ Scientific reports and publications / To protect Intellectual Property Rights and file patents.

1. Name of the Centre Centre for Earth & Atmospheric Sciences

2. Year of establishment : 2010

3. Courses in collaboration with other universities, industries, foreign institutions, etc.

- Our Centre has 50m Instrumented Meteorological tower collaborated with Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam for skills development (education and training) and exploit synergies and complementarities of scientific and technological capabilities.
- India Meteorological Department installed Automatic Rain Gauge Station at our centre. The hourly rainfall data is transmitted from the site to the satellite INSAT 3A which retransmits the data to the central earth station disseminated to the weather forecaster to provide crucial weather services to the general public.

4. Participation of the department in the courses offered by other departments:

- Faculty of Building and Environment
- Faculty of Computing
- Faculty of Science & Humanities

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	Research	Ph.D	M.Tech (By Research)
1.	Dr. P. Sardar Maran	M.Sc.,M.Phil., M.Tech.,Ph.D	Scientist-D	Artificial Neural Network Fuzzy Logic, Data Mining Data base Management Simulation Modeling	3	5	10.5	Nil	Nil
2.	Dr. P.M. Velmurugan	M.Sc.,M.Phil, Ph.D	Scientist-C	Earth Sciences Environmental Marine Geo Chemistry Paleo Climatic Studies	Nil	2.5	4.5	1	Nil
3.	Dr. B. Prabhu Dass Batvari	M.Sc., Ph.D	Scientist-C	Coastal Pollution Monitoring Environmental Geochemistry GIS Socio Economic	Nil	Nil	7	Nil	Nil
4.	Santhiya Antony Mary	M.Sc	JRF	GIS Remote Sensing Geo Chemical Analysis Land use mapping	3	Nil	3 Months	Nil	Nil

S.No	Name	Qualification	Designation	Specialization	No of years of experience			No of Phd/MTech (By Research) students guiding for the last 4 years	
					Industry	Teaching	Research	Ph.D	M.Tech (By Research)
5.	M.Balakrishnan	M.Sc.,M.Phil	JRF	Stratigraphy Economic Geology	Nil	Nil	1	Nil	Nil

6. List of senior visiting fellows, adjunct faculty, emeritus professors

Visiting Academic Experts:

Dr. R. R. Krishnamurthy , Ph.D, Professor and Head, Department of Applied Geology, University of Madras, Chennai.

Dr.M.Jayaprakash, Associate Professor, Department of Applied Geology, University of Madras, Chennai.

Visiting Research Experts:

Dr.R.Venkatesan, Scientist Officer-G, Radiological Safety & Environment Group Radiological Safety Division, IGCAR, Kalpakkam

Dr. K. K. Sharma, Principal Scientist Shri AMM Murugappa Chettiar Research Centre, Taramani, Chennai.

Mr.K.Boopathi, Additional Director / Head, National Institute of Wind Energy (NIWE), Pallikaranai, Chennai

Dr.S.Balachandran, Director (Sc. 'E'), Regional Meteorological Centre, Chennai.

Dr. Selvirajan S, Chief Scientist, CSIR-Structural Engineering Research Centre, CSIR Campus, Taramani, Chennai

7. Research thrust areas as recognized by major funding agencies

- Artificial Neural Network
- Fuzzy Logic, Data Mining
- Data base Management
- Simulation Modeling
- Earth Sciences
- Environmental Marine Geo Chemistry
- Paleo Climatic Studies
- Coastal Pollution Monitoring
- Environmental Geochemistry
- Remote Sensing & GIS
- Geo Chemical Analysis
- Land use mapping
- Stratigraphy
- Economic Geology

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No.	Name of the Investigators	Title of the Proposal	Agency	Year of Sanction	Duration	Amount Sanctioned	Status
1	Dr.B. Prabhu Dass Batvari	Generation of High resolution Digital Elevation Model	Combat Vehicles Research & Development Estt. (CVRDE)-DRDO	Oct 2015	Oct 2015- March 2017	Rs. 9,59,400/-	Ongoing

S.No.	Name of the Investigators	Title of the Proposal	Agency	Year of Sanction	Duration	Amount Sanctioned	Status
2	Dr.B. Prabhu Dass Batvari	Assessment of blue carbon stock in the mangrove ecosystems of Tamil Nadu	Department of Science & technology, Government of India	Dec 2015	Dec 2015- Dec 2018	Rs. 30,27,600/-	Ongoing
3	Dr.P.Sardar Maran	Development of Inversion algorithm for retrieval of atmospheric parameters from atmospheric lidar data	Indian Space Research Organization (ISRO), Bangalore.	Feb 2016	Feb 2016-Feb 2017	Rs. 5,04,000/-	On going
4	Dr.P.M.Velmurugan	Late Holocene tectonic land-level changes and tsunamis: Comparison between Muthupet Lagoon, Bay of Bengal and Rocky Island Creek, South Andaman, Indian Ocean	Department of Science & technology - Science and Engineering Research Board (DST-SERB)	Feb 2016	Feb 2016- Feb 2020	34, 24,968	Ongoing
Total						Rs. 79,15,968/-	

9. Inter-institutional collaborative projects and associated grants received

Awareness programme on Climate Change to Tamil Nadu government school students - Rs.1,20,000/-

Earth Day Celebration program for primary & secondary school students – Rs.1,50,000/-

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received : Nil

11. Research facility / centre with state recognition, national international recognition

- State Recognition : NIL
- National Recognition : 50m Instrumented Meteorological Tower with Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam.
Automatic Rain Gauge Station (ARG) with India Meteorological Department (IMD).

12. Publications

Number of papers published in peer reviewed journals (national / international)

National Journals : 4

International Journals : 7

Monographs -Nil

Chapters in Books - Nil

Edited Books - Nil

Books with ISBN with details of publishers - Nil

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

Scopus - 8

Web of Science - 1

Citation Index - 5

SNIP - 0.451-1.51

SJR - 0.154-1.302

Impact Factor - range / average - 0.78

h-index - 7

13. Details of patents and income generated : Nil

14. Areas of consultancy and income generated:

Micrometeorological wind field Measurement campaign at Sathyabama University for validation of atmospheric flow models during Round Robin Exercise – Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam- Rs.1,10,000/-

15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

November 2015 to December 2015- Visited Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam for the upgradation of Meteorological Sensors.

January 2016 to July 2016 - Visited CSIR-Structural Engineering Research Centre, CSIR Campus, Chennai for carrying out Wind feasibility at our Centre.

16. Faculty serving in

a) National committees b) International committees c) Editorial Boards d) any other (please specify) -Nil

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Dr.P.Sardar Maran- 10 Days Training program on Big Data Analytics- 27th April 2016-7th May 2016, Sponsored by DST.

18. Awards / recognitions received at the national and international level by - Nil

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.No	Agency	Name of the Investigator	Title of Training/Workshop/Seminar Programs	Sanctioned Amount	Duration	Remarks
1	MoES	Dr.P.Sardar Maran	National Workshop on “Real Time Weather Data Analysis & Climate Studies” -	Rs.50,000/-	2 Days 23 - 24th Oct, 2010	Completed
2	ISRO	Dr.P.Sardar Maran	National Level Training on Application of Geoinformatics for Impact of Climate Change on Natural Resources Management (GEO-ICCNRM)	Rs.1,00,000/-	4 days Aug 22 nd – 25 th 2011	Completed
3	MoES	Dr.P.Sardar Maran	National Level Workshop On Application of Geoinformatics for Assessment of Impact of Climate Change on Water Resources (GEO-ICCWR)	Rs.1,00,000/-	2 days Sep 16 th – 17 th 2011	Completed
4	MNRE	Dr.P.Sardar Maran	National Seminar On Application of Conventional & Renewable Energy (ACRES - 2012)	Rs.50,000/-	2 days Oct 28 th – 29 th 2012	Completed
5	SERB	Dr.P.Sardar Maran	National seminar on Impact Analysis of Environment, Energy and Climate Change (IAEECC)	Rs.50,000/-	2 days Jan 24 th – 25 th 2014	Completed
6	MOES	Dr.P.Sardar Maran	Regional level climate change education awareness & Training for school students (CCATS-2014)	Rs.1,20,000/-	9th - 11th October 2014	Completed
7	Self-Funding	Dr.B.Prabhu Dass Batvari	Two Days Training Programme on Open Source GIS Tools	Rs.5,500/-	29 th -30 March 2016	Completed
8	MoES	Dr.P.Sardar Maran	Earth Day Celebration-2016	Rs.1,50,000/-	22 nd -23 rd , April, 2016	Completed

20. Code of ethics for research followed by the departments

Honoring patents, copyrights, and other forms of intellectual property. Give proper acknowledgement or credit for all contributions to research. Never plagiarize.

Improving professional competence and expertise through lifelong education and learning.

Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Ph.D awardees – 1

22. List of doctoral, post-doctoral students and Research Associates: Nil

23. Number of post graduate students getting financial assistance from the university: Nil

24. Highlight the participation of students and faculty in extension activities.

SI.No	Students Project Title	Department
1	Pitch control of a wind turbine using Fuzzy Logic	Faculty of Electrical & Electronics
2	Rainfall forecast modeling in rural area of south Chennai using Artificial Neural Network (ANN)	Faculty of Electrical & Electronics
3	Online Weather Information System (OWIS) using 50m Meteorological tower data	Faculty of Computing
4	Spatial Analysis of Rainfall Variation in Chennai City Using Real Time Weather Data and GIS Techniques.	Faculty of Building & Environment
5	Application of Remote Sensing and GIS for Hydrogeological Mapping in Cooum Sub Basin, Chennai, Tamilnadu.	Faculty of Building & Environment

6	Impact of Climate Change on Solid Waste Dumping and its Related Geo- environmental Hazards in Sholinganallur Taluk, Chennai City. Using Remote Sensing and Geographical Information System.	Faculty of Building & Environment
7	Impact of climate change and urbanization in Surface water Resources in Chennai City. Using Remote Sensing and Geographical Information System.	Faculty of Building & Environment
8	Land use land cover change detection in Chennai outer ring road Pattabiram-Vandalur, using RS and GIS	Faculty of Building & Environment
9	GIS based water quality and quantity of Manali Industrial area	Faculty of Building & Environment

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied. Nil

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Strength:

- Completed two funded projects, four ongoing projects and two is in the review process.
- Publications in Indexed Journals (Scopus and Web of Science)
- Well established laboratory with equipments
- Dedicated staff members.

b)Weakness:

- Percentage of students to opt for research activities.

c) Opportunities:

- More funded projects can be raised with new emerging technologies.
- Funds can be raised by conducting certificate courses.

d) Challenges:

To meet the industry expectations and standards.

27. Future plans of the department.

- To start new courses – B.Tech/M.Tech in Atmospheric Sciences
- To introduce new certification courses
- To aim for more publications from the department
- To induct research activities in atmospheric science technology.

1. **Name of the Centre** :CENTRE FOR QUALITY ASSURANCE AND NON-DESTRUCTIVE EVALUATION
2. **Year of establishment** : 2010
3. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

S.No	Title of the Training programme	Duration	Name	Organization
1	Interpretation Course on "Radiographic Testing"	Oct , 28 th -30 th , 2010	Mr.Subburathnam Mr.N.Raghu	IGCAR, Kalpakkam
2	Training and Certification course on, "Visual Examination ISNT Level-II"	Nov, 7 th -12 th , 2011	Mr.Rajkumar	IGCAR, Kalpakkam
3	Applications of Advanced Signal/Image Processing for Quality Assurance in Food Processing Industry by IR and UT Imaging	Dec 1 st – 3 rd 2011	Dr.Govindraj Dr.Gopal	CEERI , CSIR Chennai
4	Workshop on Software Tools for Intelligent Processing of Images (STIP – 2012)	Feb 1 st – 3 rd 2012	Mr.Santhosh	HCL, IT industry
5	Training and Certification course on, "Ultrasonic Testing "Level II"	June 18 th – 28 th 2012	Mr.Loganathan	BHAVINI, Kalpakkam

6	ISNT Certification Course on “Penetrant Testing ISNT Level II”	Aug 01 st – 4 th 2012	Dr.Venkatraman	IGCAR, Kalpakkam
7	Training and Certification course on, “Visual Examination ISNT Level-II“	Aug 20 th – 23 rd 2012	Dr.Rajkumar	IGCAR, Kalpakkam
8	Durability and performance assessment of the emerging Advanced Materials by Non Destructive Evaluation (Series I & Series II)	7 th - 8 th & 14 th - 15 th Feb 2014	Dr.Debolina Dr.S.N.Jaya Shankar Dr.CV Krishnamurthy Dr.Narayan Parida	IIT, Madras CLRI, Chennai IIT, Madras NML Jamshedpur
9	Awareness Programme on “Training and Certification in Nondestructive Testing”	Aug 22 nd , 2014	Dr.Venkatraman Mr.Kasi Viswanath	IGCAR, Kalpakkam Meena International

4. Participation of the department in the courses offered by other departments

- a) Hands on NDE training for students of School of Mechanical Engineering
- b) Data base generation for Research Scholars
- c) Projects for Bachelor degree students from the School of Electrical and Electronics Engineering
- d) Awareness programs for Students about value added courses for students of School of Mechanical Engineering

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name: Dr. Kunal Das

Qualifications: M.Sc., M.Tech, PhD., Postdoc.

Designations: Scientist-E

Area of Specilizations: Polymer composites/nanocomposites for high end application

Experience: 09 years research experience with 19 publications with Google scholar citation 304 and h-index-9

Research Guidance: One M.tech. Student from IEST, Shibpur jointly guided

Name: Ms.C.F.Theresa Cenate

Qualifications: B.E., M.E, (Ph.D)

Designations: Scientist-D

Area of Specilizations: Image Processing, Neural Networks

Experience: 8 years teaching and 6 years research experience with 9 publications

Research Guidance: 20 B.E. Students batch from Sathyabama University

6. List of senior visiting fellows, adjunct faculty, emeritus professors

Dr.B.Venkatraman, Group Director HRSG, IGCAR, Kalpakkam

7. Research thrust areas as recognized by major funding agencies

- b. Quality inspection of Weldments, Castings & pipelines (DAE)
- c. Structural Health Monitoring (DST)
- d. Data Analysis (Signal/Image/Video)(BRNS/BRFST)
- e. Pattern Recognition and Automation(BRNS/BRFST)
- f. Nondestructive Evaluation(BRNS/BRFST)
- g. Development of advanced materials(DLJ,DRDO)
- h. Materials Characterization(DRDO)
- i. Failure analysis of polymer composites (DRDO)

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No	Agency	Title of the Project	PRINCIPAL INVESTIGATOR
1	BRFST	Design of signal analysis Techniques for Determining the Parameters Responsible for Plasma Disruptions in Aditya Tokamak	Dr.B.Sheela Rani Dr.N.M.Nanaditha
2	BRFST	Design of Tunable optical bandpass filter and Neutral density filter	Dr.B.Sheela Rani Dr.N.M.Nanaditha

3	DRDO	Development of Bio Nanocomposites Materials for Strontium and Cesium Removal from Polluted Water	Dr.Kunal Das
4	BRNS	Characterization of Weld Defects using Fusion of Radiographic and Ultrasonic Phased Array Images	Ms.C.F.Theresa Cenate Dr.B.Sheela Rani

9. Inter-institutional collaborative projects and associated grants received :

S.No	Agency	Title of the Project	PRINCIPAL INVESTIGATOR
1	IPR, BRFST	Fusion Of IR Thermography And Visible Images Using Stockwell Transform	Dr.B.Sheela Rani Dr.N.M.Nanaditha
2	IPR, BRFST	Design of Neuro-Fuzzy Controller for Plasma Position Control in Aditya Tokamak	Dr.B.Sheela Rani Dr.N.M.Nanaditha
3	IGCAR,DST (TNSC ST)	Infrared Thermography for Monitoring and Rejuvenating temples,Rock Sculptures,Monuments and Traditional Buildings	Dr.B.Sheela Rani Dr.N.M.Nanaditha
4	IGCAR, BRNS	Wavelet Analysis for defect characterization in welded joints from ultrasonic signals and Radiographic Images	Dr.B.Sheela Rani Dr.N.M.Nanaditha

S.No	Agency	Title of the Project	PRINCIPAL INVESTIGATOR
5	IGCAR,DST	Development of on-line monitoring system for preventing weld defects in Automated Gas Tungsten ARC welding by infrared Thermography and digital Radiography	Dr.B.Sheela Rani Dr.N.M.Nanaditha
6	IPR, BRFST	Design of signal analysis Techniques for Determining the Parameters Responsible for Plasma Disruptions in Aditya Tokamak	Dr.B.Sheela Rani Dr.N.M.Nanaditha
7	IPR,BRFST	Design of Tunable optical bandpass filter and Neutral density filter	Dr.B.Sheela Rani Dr.N.M.Nanaditha
8	DLJ,DRDO	Development of Bio Nanocomposites Materials for Strontium and Cesium Removal from Polluted Water	Dr.Kunal Das
9	IGCAR, BRNS	Characterization of Weld Defects using Fusion of Radiographic and Ultrasonic Phased Array Images	Ms.C.F.Theresa Cenate Dr.B.Sheela Rani

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received :

S.No	Agency	Title of the Project	Sanctioned	PRINCIPAL INVESTIGATOR
1	BRFST	Fusion Of IR Thermography And Visible Images Using Stockwell Transform	Rs 22,73,000/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
2	BRFST	Design of Neuro-Fuzzy Controller for Plasma Position Control in Aditya Tokamak	Rs.14,39,000/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
3	DST (TNSC ST)	Infrared Thermography for Monitoring and Rejuvenating temples,Rock Sculptures,Monuments and Traditional Buildings	Rs.13,03,200/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
4	BRNS	Wavelet Analysis for defect characterization in welded joints from ultrasonic signals and Radiographic Images	Rs.24,97,750/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
5	DST	Development of on-line monitoring system for preventing weld defects in Automated Gas Tungsten ARC welding by infrared Thermography and digital Radiography	Rs.25,97,617/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
6	BRFST	Design of signal analysis Techniques for Determining the Parameters Responsible for Plasma Disruptions in Aditya Tokamak	Rs.8,10,000/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha
7	BRFST	Design of Tunable optical bandpass filter and Neutral density filter	Rs.13,43,000/-	Dr.B.Sheela Rani Dr.N.M.Nanaditha

8	DRDO	Development of Bio Nanocomposites Materials for Strontium and Cesium Removal from Polluted Water	Rs.9,97,500/-	Dr.Kunal Das
9	BRNS	Characterization of Weld Defects using Fusion of Radiographic and Ultrasonic Phased Array Images	Rs 23,34,692/-	Ms.C.F.Theresa Cenate Dr.B.Sheela Rani

11. Research facility / centre with state recognition, national international recognition

FLIR T335 – IR Camera purchased through and utilized for project titled “Infrared Thermography for Monitoring and Rejuvenating temples, Rock Sculptures, Monuments and Traditional Buildings” sponsored by DST(TNSCST)

12. Publications

Number of papers published in peer reviewed journals (national / international) : **18**

Monographs : **- Nil**

Chapters in Books : **- in revision**

Edited Books : **- Nil**

Books with ISBN with details of publishers - **Nil**

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **WOS-8; SCOPUS – : 10**

Citation Index : 1 - 98

SNIP : 0.376-1.401

SJR : 0.12 - 2.12

Impact Factor – Range: 0.12 – 3.73

h-index : 8

13. Details of patents and income generated

Patent on Polymer Nano Composite in the developing stage

14. Areas of consultancy and income generated

- a) DST project- IR Camera
- b) BRNS project – UT equipment to IGCAR

15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

Dr.Kunal Das – CLRI, Chennai

16. Faculty serving in

- a.National committees
- b.International committees
- c.Editorial Boards

d. Any other (please specify) – Reviewer of International Peer Review Journals

S. No	Name of the Faculty	Editorial board name of the journal
1	Dr.Kunal Das	Reviewer of following Journals 1. Carbohydrate Polymers(Elsevier) 2. Composite Part-A(Elsevier) 3. Express Polymer Letter 4. Industrial Engineering and Chemical Research (American Chemical Society) 5. Journal of Institution of Engineers(Springer)

17. Faculty recharging strategies (UGC, ASC, Refresher/orientation programs, workshops, training programs and similar programs).

Sl. No.	Name of the Faculty	Name of the Conference	Name of the organizing Institution with City/Country
1	Ms.C.F.Theresa Cenate	Indian National Seminar & Exhibition on Non-Destructive Evaluation, Kolkata NDE 2010	Indian Society for Non-Destructive testing (ISNT)-Kolkata Chapter
2	Ms.C.F.Theresa Cenate	National Seminar & Exhibition on Non-Destructive Evaluation, NDE 2011	Indian Society for Non-Destructive testing (ISNT)-Chennai Chapter

3	Ms.C.F.Theresa Cenate	National Conference on Emerging trends in VLSI, Embedded and Nano Technologies, NCEVENT-2011	Department of Electronics and Communication Engineering, Sathyabama University
4	Ms.C.F.Theresa Cenate	Third International Conference on Recent Trends in Information Technology (ICRTIT 2013) ISBN No: 9781479910236	IEEE
5	Ms.C.F.Theresa Cenate	14 th Asia-Pacific Conference on Non-Destructive Testing, 14 th APCNDT, 2013	Indian Society for Non-Destructive Testing
6	Ms.C.F.Theresa Cenate	2 nd National Conference on Innovative Computing Techniques, NCICT2015	Dr.MGR Educational and Research Institute
7	Ms.C.F.Theresa Cenate	Thermography workshop	QIRT Conference2015
8	Ms.C.Theresa Cenate	Workshop on Time of Flight Diffraction	TWI, Chennai 2014
9	Dr. Kunal Das	International Conference on Macromolecules, ICM 2016	Kerala, May, 2016

18. Awards / recognitions received at the national and international level by

Dr.Kunal Das –DST Inspire Fellow

- 19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

S.No	Funding Agency	Name of the Coordinator	Title of the Training programme	Duration
1	CSIR	Ms. C.F.Theresa Cenate	Applications of Advanced Signal/Image Processing for Quality Assurance in Food Processing Industry by IR and UT Imaging	Dec 1 st – 3 rd 2011
2	BRFST	Ms. C.F.Theresa Cenate	Workshop on Software Tools for Intelligent Processing of Images (STIP – 2012)	Feb 1 st – 3 rd 2012
3	BRNS	Dr.Kunal Das	Durability and performance assessment of the emerging Advanced Materials by Non Destructive Evaluation (Series I & Series II)	7 th - 8 th & 14 th - 15 th Feb 2014

- 20. Code of ethics for research followed by the departments :**

Prioritize the student innovation first rather than faculties innovation. In addition to the delivering research work the worker student name always came first.

- 21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

NA

22. List of doctoral, post-doctoral students and Research Associates

1. Ms. C.F. Theresa Cenate
2. Ms. Sudheera Kodali
3. Ms. Delsy Kennedy
4. Ms. Sangeetha

23. Number of post graduate students getting financial assistance from the university:

NIL

24. Highlight the participation of students and faculty in extension activities.

Arrange for study lab on NDE for Students of our University

Awareness program on , workshops, training

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The centre for Quality Assurance and Non-Destructive Evaluation at Sathyabama University aims at becoming the Numero Uno Centre in the world for applying Non Destructive Evaluation for Quality Assurance and to serve the Nation at a larger scale. The centre is equipped with state-of-art equipments for various NDT techniques that include InfraRed Thermography, Ultrasonic testing, Magnetic Particle Testing, Liquid Penetrant Testing. An exceptionally talented and dedicated team of centre coordinators, researchers and Post graduate Students are actively involved in various activities.

The main activities of the centre aims at developing completely reliable, cost effective, Non Destructive Evaluation (NDE) based techniques. To name a few, it includes Medical Diagnosis, Quality Assurance of weldments and casting, Automated Health Monitoring of buildings, Interactive Dimension Gauging system for industries and automatic quality inspection of pipelines. The centre also aims at conducting certified training programmes on various Non Destructive Testing (NDT) methods for industry people and academicians. The centre also aims at providing consultancy to leading industries. In addition, it aims at training young students and budding engineers towards NDE by providing hands on experience with the equipments.

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Strength:

CQNDE is a well equipped lab for characterization, identification of Volumetric and Linear defects using diverse NDE technique available in the centre, visualization of the same using advanced image analysis software and development of user friendly software packages. The centre scientists have already successfully completed and are actively doing many collaborative projects for different agencies viz DST, BRNS, BRFST, DRDO etc. The centre act as a data source for many Under graduate, Post Graduate and Research Scholars. The workshops, training and certification programs organized by the centre are planned to match the requirements of Students, Researchers, academicians and the engineers and scientist form different industries.

b. Weakness:

In the direction of becoming the centre for excellence, the centre aims at acquiring all the advanced NDE facilities under one roof which is not available else were. Centre in addition to the collaborative projects aims towards having some consultancy work to meet the societal application. In the area of education, the centre aims at conducting some awareness program as well as many certified program including Diploma, Bachelor and Master Degree in the field of Non-Destructive Evaluation.

c. Opportunities:

Facilities available at the centre helps to associate itself with different professional bodies within India like Indian Society for Non Destructive Testing and National Certification Board to conduct certification programs for students, Engineers and Scientist and Internationally in order to improve individuals knowledge and the quality of living. Advancement in technology is leading to an advanced research in collaboration with reputed research institutes throughout the world including Indira Gandhi Centre for Atomic Research (IGCAR), Institute of Plasma Research, CSIR etc in the form of knowledge transfer and Technology transfer to meet the societal and Industrial demands.

*

d. Challenges:

In the scenario of growing industries in the developing country like India the method of assuring the quality of products in the form of raw materials, processed materials, equipments and what not plays a very crucial role where the need for qualified NDE personnel is the only need of the hour.

27. Future plans of the department.

The centre for Quality Assurance and Non-Destructive Evaluation at Sathyabama University aims at becoming a most well equipped and advanced NDE institute in Chennai in coming decades. The centre already filled with the scientist who have an well research experience in india as well as in abroad in various country. It also extending it's research collaboration with various institute in India as well as abroad. Thrust area of research prioritizes according to need of society. The centre has a plan to start bachelor and masters course on advanced NDE. CQNDE has also a plan to consultancy research for the need of the industry.

1. Name of the Centre **Centre for Waste Management**
(In association with International Solid Waste Association & National Solid Waste Association of India)

2. Year of establishment : 2010

3. Courses in collaboration with other universities, industries, foreign institutions, etc.

Centre	Nature of Collaboration (Joint Publication/Certificate Course)	National and International institution Collaboration	Funds obtained (if any)
Centre for Waste Management	Three Certificate Courses	Sustainable Development & Social Change SIT Study Abroad/World Learning India	Rs.1,30,000/-

4. Participation of the department in the courses offered by other departments

Participation details	Department
Providing Infrastructure facility and technical guidance for B.E/B.Tech Projects	Chemical Engineering, Biotechnology, Electronics & Telecommunication Engineering, Electronic & Control Engineering, Information Technology, Mechanical Engineering, Mechanical & Production Engineering, Aeronautical Engineering, Civil Engineering

Providing Infrastructure facility and technical guidance for Ph.D	Chemical Engineering
Invited Speaker for Conferences, Orientation Programmes and Seminars organized by the Department of Chemical Engineering	Chemical Engineering

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name of the Faculty	Qualification	Designation	Area of Specialization	Experience	Research under Guidance
1	Dr. Dawn S S	M.Tech, Ph.D	Scientist- E	Alternate Fuels, Catalysis, Waste Management	15 Years	8
2	Ms. Nirmala.N	MS.c, (Ph.D)	Scientific Assistant	Microbiology, Algal Fuels	2.5 Years	-
3	Ms. Caroline Joshi	MS.c, M.Phil	Research Assistant	Biotechnology	2.5 Years	-
4	Ms. Rashmi Kumari	B.Tech, (M.Tech)	Junior Research Fellow	Chemical Engineering	10 Months	-

6. List of senior visiting fellows, adjunct faculty, emeritus professors

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1 2 3 4. 5	Dr.G.Krishnamoorthy ,Professor Emeritus Mr.Viswanathan, Professor,Environmental Engineering & Management Dr.Amiya Kumar Sahu, President Dr.Saiprasad, Director, Environmental Training Institute Ms.Tara Devi Thakkal	San Diego State University,USA Asian Institute of Technology, Bangkok National Solid Waste Association of India (NSWAI) Tamil Nadu Pollution Control Board SIT, Jaipur	2011
1 2 3	Dr.N.Vedaraman, Senior Technical Officer Dr.Balachandra Kurup, Project Director Ms.Rama Devi	Chemical Engineering Division, CLRI, Chennai International Institute of Waste Management, Bhopal SIT,Jaipur	2012
1 2. 3 4	Dr Mannava V.K. SIVAKUMAR Consultant, Climate Prediction and Adaptation Branch Dr.Suri, Director Dr.N.Vedaraman, Senior Technical Officer Dr. C. S. Kannan, Associate Professor	World Meteorological Organization, Switzerland. MoEF, Delhi Chemical Engineering Division, CLRI, Chennai	2013

5	Dr.Sridharan ,Director	The Petroleum Institute of Abhu-Dhabi, UAE RESPOND , VSSC, Trivandrum	
1. 2 3 4	Dr.S.Ilangovan, Head ,Advanced Energy System Division Dr.H Annamalai, Senior Researcher Dr.Venkatratinam, Scientist-G, Pilot Plant Head Mr.S.Murugaraja, Process Design Engineer	VSSC, Trivandrum International Pacific Research Centre CLRI, Chennai GE, Bangalore	2014
1 2	Mr.Raj Kumar, Scientist-C Dr.H Annamalai, Senior Researcher	Central Pollution Control Board, Bangalore International Pacific Research Centre	2015
1 2 3	Dr.Kevin S Paulson, Dean Dr.Dipesh Patil, Lecturer, Chemical Engineering Mr.C.Rajeswara Rajha, Chairman	University of Hull, UK Sai Chamois Inc.,Perundurai	2016

7. Research thrust areas as recognized by major funding agencies

S.No.	Name of the Investigators	Title of the Proposal	Agency National/ International	Duration	Grant Received
1	Dr. Dawn S S, Dr. Brijitta Dr. T. Sasipraba	Synthesis, Characterization and Application of a Novel Metal Complex Photocatalyst System for Carbon Dioxide Splitting	ISRO (VSSC)	2013-2015	Rs. 14,50,800/-
2	Dr.Dawn S S (Bio- Energy)	Centre of Excellence for Energy Research (CEER) under the scheme establishment of centre of excellence in frontier areas of Science and Technology (FAST)	Ministry of Human Resource and Development (MHRD)	Aug 2014- Aug 2018	Rs. 60,00,000/-
3	Dr.Dawn SS, Dr. T. Sasipraba	A Study On The Monitoring & Measurement Of Green House Gas Emissions At Dumpyards Using Gis & Sensor Web	Department of Science and Technology (DST)	2015 -2016	Rs. 13,44,000/-

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No.	Name of the Investigators	Title of the Proposal	Agency National/ International	Duration	Grant Received
1	Dr.Dawn S S (Bio- Energy)	Centre of Excellence for Energy Research (CEER) under the scheme establishment of centre of excellence in frontier areas of Science and Technology (FAST)	Ministry of Human Resource and Development (MHRD)	Aug 2014- Aug 2018	Rs. 60,00,000/-
2	Dr.Dawn SS, Dr. T. Sasipraba	A Study On The Monitoring & Measurement Of Green House Gas Emissions At Dumpyards Using Gis & Sensor Web	Department of Science and Technology (DST)	2015 -2016	Rs. 13,44,000/-

9. Inter-institutional collaborative projects and associated grants received :

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received :

11. Research facility / centre with state recognition, national international recognition: Yes

Research Centre/Facility	State recognition	National recognition	International recognition
Centre for Waste Management		National Solid Waste Association of India	International Solid Waste Association

12. Publications

Number of papers published in peer reviewed journals (national / international) : **29**

Monographs - **Nil**

Chapters in Books - **6**

Edited Books - **Nil**

Books with ISBN with details of publishers – **6**

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS / WOS - 21

Citation Index : 17

SNIP – Range : 0.301-1.123

SJR – Range : 0.152- 1.12

Impact Factor – Range : 0.352 – 0.872

h-index : 02

13. Details of patents and income generated

S.No.	Title of the Invention	Inventors	Date of filing	File No.	Date of Grant	Patent No.	Year
1	Automatic Smart Segregator	Dr. Dawn S S. K.Dayanandhan Kadamati Harish Kumar Jeeru Nitish Reddy Aman chauhan Anshuman Sar Rashmi Kumari Dr. Thankappan, Sasipraba Dr. Johnson, Marie Dr. Johnson, Mariazeena Dr. Jeppiaar	19/12/2014	23774	-	6426/CHE/2014	2014
2	Analysis and Development of Bio-Plastic from Algal Biomass for Composites	Dr. Dawn S S Mr. Kaja Bantha Navas Mr. Nishant Gaurav Mr. Kumar Manu Mr. Basisth Kumar Ms. N.Nirmala Ms. Caroline Joshi Dr. Thankappan, Sasipraba Dr. Johnson, Marie Dr. Johnson, Mariazeena Dr. Jeppiaar	19/12/2014	23775	-	6427/CHE/2014	2014

14. Areas of consultancy and income generated

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned	Duration
1	Basin Bridge Power Plant, Chennai	Pollutant (NOx) Transport and Propagation Modeling	Rs.40,000/-	Jan 2012-May 2012
2	University / Institutes	Biodiesel Production Optimization	Rs. 50,000/-	June 2015 – May 2016
3	University / Institutes	Biodiesel Production Optimization	Rs. 15,000/-	June 2016 – Till Date

4. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

S. No	Scientist Name	Name of the laboratory/Institution	Duration	Year
1	Dr.Dawn S S	CLRI, Chennai TNPCCB, Chennai Hand in Hand, Biogas Unit, Mahabalipuram Chennai Metropolitan Waste Water and Sewage Treatment Plant	Periodic Periodic 5 Days	2011

		TNPCB, Chennai Hand in Hand, Biogas Unit, Mahabalipuram Chennai Metropolitan Waste Water and Sewage Treatment Plant	Periodic 5 Days	2012
		VSSC, Trivandrum CLRI, Chennai	5 days periodic	2013
		CVRDE, Chennai	1 day	2015
		Loyola Institute of Technology, Chicago	1 day	2016
1	Ms.Nirmala N	Bio Medical Waste Treatment Facility, Maduranthagam Exnora Green Pammal	1 Day 1 Day	2014
		Molecular Biology Lab, Department of Microbiology, Ethiraj College for Women	Periodic	2015
		CLRI, Chennai	Periodic	2016

16. Faculty serving in

- a. National committees b) International committees c) Editorial Boards d) any other (please specify)

S. No	Name of the Faculty	Editorial board name of the journal
1	Dawn S S	International Journal on Applied Bioengineering National Journal on Chembiosis Proceedings of the International Conference on Green Technology and Environmental Conservation (GTEC-2011) Proceedings of the International Conference on Impact of Climate Change on Food, Energy and Environment (ICCFEE-2013)

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

S.No	Programs	Duration
1	Patent Training program	1 Day
2	Biotechnology Entrepreneurship students team (BEST- 2015) Workshop conducted by Association of Biotechnology Led Enterprises (ABLE)	4 Days

18. Awards / recognitions received at the national and international level by

S.No	Name of the event	Institution / organization	National / International	Date	Remarks / achievements
1	International Seminar on Waste Management organized in association with International Solid Waste Association	Central Leather Research Institute (CLRI), Chennai	National	7 th , June , 2011	i) Delivery of Feasibility studies Report for the Production of Biodiesel from Sathyabama University Mess Waste Cooking Oil . ii) Five of the University Buses were powered with Biodiesel and blends and Flagged-off by the Mr.Hermann Koller, Dr. Asit Baran Mandal, Dr.Amiya Kumar Sahu, Dr.Muthiah Maraippan
2	Monitoring Dumpyards for GHG Emissions	Corporation of Chennai	National	23 rd October, 2013	Monitoring of Green House Gas Emissions from the major dumpyards of Chennai and make it available in a WEB portal using sensors and wireless networks

20. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S. No	Seminars/ Conferences/ Workshops	Source of Funding	Participants
1	International Seminar on Waste Management – 7th June, 2011	NSWA & ISWA	Herman Koller, Managing Director of International Solid Waste Association Amiya Kumar Sahu, President of National Solid Waste Association of India (NSWAI)

S. No	Seminars/ Conferences/ Workshops	Source of Funding	Participants
2	An Internship on Zero wastes Zero warming – 17th to 21st of October, 2011	SIT, World Learning India, Jaipur	Rebecca Gornstein Gelles , Carleton College,USA Megan Tasha Issac, School of the Art Institute of Chicago, USA Nicholas Leingang, Yale University,USA Troy Candiotti, Gettysburg College, USA
3	International Conference on Green Technology and Environmental Conservation (GTEC) – 15th to 17th – Dec, 2011	Sathyabama University in association with TNPCB	Students , Staffs, Researchers from around 40 Colleges/Universities
4	One Day Awareness Programme on Atomic Energy "VIZHITHIDU"- 31ST March, 2012	BHAVINI, Kalpakkam	3000 participants from villages near Kalpakkam, Sriperumbudur, Vayalur, Pudhupattinam, Sadras, Thazhankuppam, Pazhaverkaadu, Kasimedu, Old Washermanpet, Sathya Studios, Chintadaripet, Anakaputhur, Kanathur, Tambaram , Trichy, Villupuram, Chidambaram, Cuddalore, Nagapattinam etc.
5	An Awareness Programme on "ATOMIC ENERGY – A KEY TO MEET THE ENERGY CHALLENGE" - AWAKE-21ST FEB, 2012	BHAVINI, Kalpakkam	Students , Staff, Researchers from around 20 Colleges/Universities Researchers and Scientists from BHAVINI, IGCAR, DoE
6	An Internship on Waste to Wealth – 19th to 23rd March, 2012.	SIT, World Learning India, Jaipur	Katherine Roberts, Whitman College, USA Nadine Biss, Wheaton College, Massachusetts, USA Diana Boesch, Whitman College, USA Olivia Petrocco, Brown University

S. No	Seminars/ Conferences/ Workshops	Source of Funding	Participants
7	National Convention on Challenges, Innovation & Opportunities in Solar Energy to Enact Kyoto protocol (SEEK-2013) - 28th Feb & 1st March, 2013	Solar Energy Society of India and Solar Energy Corporation of India	Students from around 40 Colleges/Universities
8	International Conference on Impact of Climate Change on Food Energy and Environment (ICCFEE-2013), July 2013	MoES	Students , Staff, Researchers from around 40 Colleges/Universities
9	START- 2014 ("Safety Training – A Requirement for Technology Developers")	Sathyabama University	75 students from various Faculties of Engineering and Technology including Departments of Chemical engineering, Biotechnology, Computer science engineering, Aeronautical, Engineering, Mechanical & Production Engineering, Embedded system, Electronics & Instrumentation Engineering etc.,. Scientists and Research Fellows from the Research Centres also attended the Programme
10	RENEW Mini Projects 2014 (Research Exploration for Novel and Ecofriendly Waste Management)	MHRD	Pre-Final/Final year Undergraduate students of any Engineering / Science Discipline
10	Awareness Programme to highlight the importance of Domestic Waste Recycling	MHRD	Women Self Help Group at Sankarapuram, Chithalapakkam on 21st July, 2015.

S. No	Seminars/ Conferences/ Workshops	Source of Funding	Participants
11	AN AWARENESS WORKSHOP ON WASTE - A RESOURCEFUL NEGLECT (WARN-15)	Sathyabama University	Undergraduates and Research fellows of different disciplines of Engineering from Sathyabama University, Rajalakshmi Engineering College, St.Joseph's College of Engineering, Mamallan Institute of Technology and Central Leather Research Institute participated in the Workshop.
12	RENEW Mini Projects 2015 (Research Exploration for Novel and Ecofriendly Waste Management)	MHRD	Pre-Final/Final year Undergraduate students of any Engineering / Science Discipline

20. Code of ethics for research followed by the departments :

Centre for Waste Management was established at Sathyabama University in 2010 in association with International Solid Waste Association & National Solid Waste Association of India. The centre functions routinely in submitting proposals for Research calls announced by National and International funding Agencies. The Scientists involved in research work in agreement with the ethics laid by the university. The work related to the Proposals on acceptance and release of funds are taken up by the Investigators, collaborators and Research fellows strictly abiding in the way it was proposed and sanctioned, insisting timely deliverables within the allotted budget. The outcome of research is expected to be delivered in terms of Publications, Prototypes, Patents and products

Research Values

The researchers begin their research at the Centres on agreeing to conduct themselves with the values outlined below

- Service and benefit to the nation
- Excellence in all work carried
- Enhancing productivity of the research centres in terms of publications, patents, products through the research either agency or in-house funded

- Encouragement of e participation research and academic colleagues of other centres and departments in the university
- Appreciation for one another's uniqueness
- Fairness that builds trust
- Sharing of our resources
- Transfer of skills and knowledge
- Open-mindedness in approaching conflict
- Creativity and innovation
- Responsible use of available resources
- Encouragement of learning and development

Research Principles

In all research situations researchers shall uphold and respect the principles of:

- Respect and protection
- Transparency
- Scientific and academic professionalism
- Accountability

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: 1

Name of the Scientists	Name of the Degree	Year
Dawn S S	Ph.D	2010

22. List of doctoral, post-doctoral students and Research Associates

S.No	Name of the Doctoral students	Title	Duration
1	Mr. P. Senthil Kumar	Synthesis, Characterization And Applications Of Polyhydroxyalkanoates	June, 2011- July, 2017
2.	Ms. N.Nirmala	Bio-Oil Extraction for enhanced bio fuel Production	July, 2013 – July, 2017
3.	Mr. Arul Jeyan	Catalytic conversion of carbon monoxide to alcoholic fuel	June, 2014- July 2018
4	Mrs. Cynthia Sheeba Johnson	A Study On Greenhouse Gas Emissions On Dumpyards /Landfills For Effective Health Hazard Management	Jan, 2014 – June 2018

23. Number of post graduate students getting financial assistance from the university: Nil

24. Highlight the participation of students and faculty in extension activities.

The application submitted by Centre for Waste Management Scientific team on “Patho-Controller” a PC Spray for pathogen control in biomedical waste management to the Biotechnology Students Entrepreneurship Team – BEST’ 2015 went through several rounds of screening, and was duly judged by a panel of jury consisting of eminent members from the field of life sciences and was shortlisted for the TOP-20 for BEST’ 2015 held from 31st October to 3rd November, 2015 at Bangalore organized by the Association of Biotechnology Led Enterprises (ABLE) functioning with the intentions to promote Indian Biotechnology Industries. Ms.Rashmi Kumari, Ms.N.Nirmala, Ms.R.Lakshmidevi, Ms.P.Priyadarsini and Mr.Alok Ranjan Research students from the Centre for Waste Management made their presentation competently and were evaluated by Dr.P M Murali, President, ABLE; Mr.Sohang Chaterjee, Theymayt Biologicals; Mr.Prahlad Achutharao. Interpretomics, Prof.S.Ramaswamy, Dean,inStem; Mr.ShriKumar Suryanarayanan,Sea6 Energy, Dr.Arjun Surya, Curadev

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The centre has involved itself in preparing the Undergraduate engineering students to enhance their career opportunities by encouraging them to take up green projects to handle issues relevant to Waste, Energy and Environment. In this regard the Centre has conducted internships entitled Waste to Wealth and Zero Waste Zero Warming in which students from the United States of America along with students from our host institution participated. The centre also offers provisions for students to take up projects and get themselves involved in basic and applied research. Since it's inception the Centre has been involved in encouraging students to take up projects related to managing waste (domestic/industrial/municipal).

A few of them a mentioned below

- i) Production of Biodiesel from Waste Cooking Oil generated in the Sathyabama University Mess using several catalysts
- ii) Production of Hydrogen from Food Waste generated in Sathyabama University
- iii) Recovery of Slag from Steel Industries for Road laying and construction applications
- iv) Thermal Compaction of Food Waste for Adsorbents
- v) Phytoremediation of Mercury wastes
- vi) Byproduct of Biodiesel for cleansing applications.
- vii) Waste Water Treatment Modules for Railways
- viii) Effective systems for CO₂ absorption and removal

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

- i) Associated with research organizations like Central Leather Research Institute, Vikram Sarabhai Space Centre for facilitating research for exchange of expertise and Infrastructure facilities.
- ii) Collaborations with Foreign Universities like University of Montana Tech, USA , University of Hawaii ,USA, University of Hull for facilitating future plans that includes student exchange and faculty exchange Programmes.
- iii) Consistently collaborates with officials of Tamil Nadu Pollution Control Board and Regional Meteorological Centre, Chennai for acquisition of data to carry out work promoting green technology in controlling climate change
- iv) Associated strongly with other Research Centres like Centre for Nanoscience and Nanotechnology and Centre for Climate Change Studies of the same University for symbiotic benefits.
- v) Creates strong association with the academic community especially with the faculty of Bioengineering to materialize innovative ideas of the student community.

Weakness:

- i) Inadequacy of Design Tools
- ii) Lack of International Exposure
- iii) Lack of high impact publications
- iv) Improper Waste Disposal facility

v) Lack of participation of scientists, research fellows organized by other institutions

Opportunities:

i) Has excellent opportunities in Green and Clean Technology Research due to the widespread Environmental Awareness amidst the common man.

ii) Commercialization of Biodiesel Plant

iii) Waste Audit for Biomedical and E-Wastes

iv) Value Added Products from Waste

v) Development of Waste Managing Technologies

Challenges:

i) Handling of hazardous waste.

ii) Biodiesel Waste Water Management

iii) Purification of Bioglycerol for value added applications

iv) Government support in commercialization of Biodiesel plant

v) Methanol production for sustainability of the process.

27. Future plans of the department.

To encourage young researchers to involve in basic and applied research for developments in Clean /Green Technologies and their implications in the themes mentioned below:

- (i) Agriculture products used for biofuel for transportation –corn, woody and leafy parts of plants for producing ethanol- sugarcane based ethanol reduces about 55-60% of GHG
- (ii) Biodiesel –soybeans, palm and cotton seeds (more fuel efficient low carbon vehicles)-affordable solar panels)
- (iii) Electricity –renewable energy (e.g., solar panels-more research required to produce affordable solar panels)
- (iv) Carbon capture and storage (develop new technologies)
- (v) Less producing agricultural lands –convert them into forests with GHG absorbing trees –a pilot study
- (vi) A study on Reduction of Methane emission form wastewater (domestic use)
- (vii) Cleaner cooking stove and fuel (for example, black carbon released from burning of agriculture waste and wood used for cooking should be reduced)
- (viii) Coastal zones of Tamil Nadu –sea level rise and salinity intrusion – A technological remedy
- (ix) Recycling of agriculture waste – Status in Tamil Nadu*

1. Name of the Centre : **Centre For Laboratory Animal Technology and Research**

2. Year of establishment : 2014

3. Courses in collaboration with other universities, industries, foreign institutions, etc. :

The following Courses are planned with GLR Labs, Chennai 600 060

1)Laboratory animal research

2)Biomaterials implantation

4. Participation of the department in the courses offered by other departments :

Participation for	Department Benefitted
Utilization of lab animals	Biotechnology, Biomedical engineering, Nanotechnology Centre for Ocean Research, Centre for drug discovery and development
UG and PG students Dissertation work	Biomedical engineering, Biotechnology

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S.No	Name of the Scientist	Qualification	Designation	Specialization	Experience
1	Dr. R. Selvaraj	M.Sc., M. Phil., Ph.D	Associate Professor	Pheromone Biotechnology - Zoology	18 years
2	Dr. R. Narasimha Raghavan	BDS, M.Sc., Ph.D	Scientist – C	Biomaterial science	6 years
3	Dr. D. Sivaraman	M.Pharm, Ph.D	Scientist – C	Pharmacology & Toxicology	7 years
4	Dr. D. Saravanan	M.Sc., M. Phil., Ph.D	Sr. Scientific Assistant	Microbial bioprospecting	10 years
5	Mr. G. Vignesh	M.Sc., M. Tech	Sr. Scientific Assistant	Cell Culture	6 years
6	Ms. S. Jansi Rani	M.Sc., M. Phil.	Scientific Assistant	Microbiology	4 years 6 months
7	Mr. P.S. Pradeep	M.Tech	Sr. Scientific Assistant	Biochemistry	6 years 3 months
8	Mr. S. Madhan	B.Sc.	Animal Handler	-	3 years
9	Mr. A. Madhavan	-	Animal Handler	-	10 years

6. List of senior visiting fellows, adjunct faculty, emeritus professors :

It is planned to invite following professors of eminence:

Dr. R. Puvanakrishnan, M.Sc. Ph.D. (Former Deputy Director, CSIR-CLRI, Chennai)

Dr. P. V. Dhanapalan, MVSc., Ph.D (Former Dean, TANUVAS, Chennai)

7. Research thrust areas as recognized by major funding agencies :

- i. Infectious Diseases
- ii. Cancer Research
- iii. Cognitive Science
- iv. Nanoscience and Research
- v. Regenerative Medicine

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned	Status
1	Dr. R. Narasimha Raghavan	Mineralization of cross linked DBM for Maxillofacial and orthopedic bone regeneration	DST, Govt. of India	3 years	9.2 Lakhs	On going

9. Inter-institutional collaborative projects and associated grants received :

It is planned to collaborate with the following institutions

- 1) Dr. Gowrisankar Rajam, Lab Lead, Immunology Lab, Center for Disease control and Prevention, Atlanta, GA, USA.
- 2) Dr. Sudha Warriar, Manipal Institute of Regenerative Medicine, Manipal University, Bangalore - 560065, India.
- 3) Dr. Suresh Bothani, NCLAS, National Institute of Nutrition, Hyderabad.
- 4) Dr. G. Archunan, Coordinator, Centre for Pheromone Technology, Professor. & Head, Dept of Animal Science, Bharathidasan University, Tiruchirapalli - 24.
- 5) Dr. S. Kannan, Prof & Head, Dept of Zoology, Periyar University, Salem.

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received :

S.No.	Name of the Investigators	Title of the Proposal	Agency	Duration	Amount Sanctioned	Status
1	Dr. R. Narasimha Raghavan	Mineralization of cross linked DBM for Maxillofacial and orthopedic bone regeneration	DST, Govt. of India	3 years	9.2 Lakhs	On going

11. Research facility / centre with state recognition, national international recognition :

Approved by CPCSEA, AWD, Ministry of Environment & forests (MoEF), Govt. of India
Reg. No. 1793/PO/ReBi/S/2014/CPCSEA

12. Publications

Number of papers published in peer reviewed journals (national / international) : 26

Monographs - Nil

Chapters in Books - Nil

Edited Books - Nil

Books with ISBN with details of publishers - Nil

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 25 ; WOS – 1

Citation Index : 25

SNIP : 0.235 – 1.51

SJR : 0.13 - 1.229

Impact Factor – Range : 0.2 – 2.93

h-index : 03

13. Details of patents and income generated : Nil

14. Areas of consultancy and income generated :

Areas of consultancy	Income generated (Rs.)
Preclinical evaluation of siddha formulations, Govt. Siddha Medical College, Chennai	Rs. 2.4 lakhs
Standardization of siddha formulations, Tamil Nadu Dr. MGR Medical University	Rs. 61,900/-
Preclinical evaluation of skin graft, Right Hospital, Chennai - 10	Rs. 20, 200/-
Antiobesity potential of plant extract in rats, Bharathi Women's College, Chennai	Rs. 48,840/-
Phytochemical screening and pharmacological activity, Bharathidasan University, Trichy	Rs. 19,209/-
Electrophycological profililing of ion channels in rats, AUKBC Research Centre, Anna Universtiy, MIT Campus, Chennai	Rs. 21,559/-
Effect of Analgesics on compound action. AUKBC Research Centre, Anna Universtiy, MIT Campus, Chennai	Rs.58,544/-

15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

Name of the faculty	Institutes visited
Dr. R. Selvaraj	National Institute of Animal Welfare, Animal Welfare Division, MoEF, Faridabad, India National Centre for Laboratory Animal Sciences, National Institution of Nutrition, Hyderabad National Institute of Animal Welfare, Faridabad, India National Institute of Siddha, Tambaram, Chennai - 46
Dr. D. Sivaraman	Tamil Nadu Dr. MGR Medical University, Chennai - 32 Captain Srinivasa Moorthy Research Foundation, Chennai- Govt. Siddha Medical College, Chennai - 106
Dr. R. Narasimha Raghavan	CSIR – CLRI, Adayar, Chennai - 20 Balaji Dental College, Pallikaranai, Chennai - 100
Ms. Jansi Rani	GLR laboratories, Madhavaram, Chennai - 60
Mr. P. S. Pradeep	Mar Athanasios College for Advanced Studies, Tiruvalla, Kerala – 689 101

16. Faculty serving in

a. National committees b) International committees c) Editorial Boards d) any other (please specify)

a) International / National committees

S. No	Name of the Scientist	Name of the Committee National / International
1.	Dr. R. Selvaraj	CPCSEA Nominee, Animal Welfare Division (AWD), Ministry of Environment & Forests, Govt. of India, New Delhi.
2.	Dr. D. Sivaraman	Asian Council for Scientific Editors, Dubai

b) Editorial Boards

S. No	Name of the Scientist	Name of the Journal
1.	Dr. R. Selvaraj	The Scitech Journal ; Journal of Ayurveda and Integrative Medicine
2.	Dr. D. Sivaraman	Pharmacologia; International Journal of pharmacology, Asian Journal of Biochemistry, Current research in Neuroscience, International Journal of Medicine and Medical Sciences, British Journal of Pharmaceutical Research, Journal of Medicinal Plants Research, African Journal of Biotechnology, The African Journal of Plant Science, European Journal of Medicinal Plants
3.	Dr. D. Saravanan	International Archives of Integrated Medicine

c) Reviewer

S. No	Name of the Scientist	Name of the Journal
1.	Dr. D. Saravanan	International Journal of Applied Pharamaceutical Science, International Journal of Research in Pharmaceutical Science.

d) Member

1.	Dr. R. Selvaraj	Institutional Animal Ethics Committee Lab Animal Scientist Association, India
2.	Dr. D. Sivaraman	Institutional Animal Ethics Committee Lab Animal Scientist Association, India, Indian Pharmacological Society Indian Pharmacist Association
3	Dr. R. Narasimha Raghavan	Institutional Animal Ethics Committee Society for Biomaterials and Artificial Organs of India
3.	Dr. D. Saravanan	Indian Association of Applied Microbiologist

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs):

- Dr. R. Selvaraj has undergone CPCSEA Nominee Training Programme at National Institute of Animal Welfare, during 3rd-7th February 2014 conducted by CPCSEA Animal Welfare Division, Ministry of Environment, Forest and Climate Change.
- Ms. S. Jansi Rani has undergone Training Programme at GLR Laboratories Private Limited, Chennai, India during November 17th November – 02nd December 2014.

18. Awards / recognitions received at the national and international level by

S. No	Awards Received	Name of the Recipient
1.	Out Standing Research Award in the Category of Animal Science by Venus International Foundation on 4 th June 2015.	Dr. R. Selvaraj
2.	Young Scientist Award – 2016 From The Aufau International Award during 2 nd National conference on fundamental and applied chemistry, on 4th June 2016 at Hotel Silver Palace, Salem, India	Dr. D. Sivaraman
3.	Dr.A.P.J. Abdul Kalam Young Scientist Award – 2015 From Tamil Nadu Press and Media council Annual Meeting held on 26 th September -2015 at Salem, Tamil Nadu,India.	Dr. D. Sivaraman

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.No.	Date	Workshop/Seminar Name	Outstanding participants
1	28 – 30 th Sep. 2015	1 st workshop on Lab Animal Handling and Research	Scientists, Scholars and Staff from various research centers, Universities
2	29 – 31, Oct. 2015	2 nd workshop on Lab Animal Handling and Research	Biomedical Engineering and Science graduates from other colleges in Chennai
3	29 – 30 th Jan, 2016	Two day workshop on Biomeaterials Implantation	Dentists and Biotechnologists from various colleges

4	10 – 11 th Mar. 2016	3 rd workshop on Lab Animal Handling and Research	Post graduate MD Siddha Doctors from National Institute of Siddha and Govt. Siddha Medical College, Chennai
5	25-29 th April, 2016	Training programme on lab animal handling and research	Post graduate students from life sciences discipline

20. Code of ethics for research followed by the departments :

The facility is specifically established to perform with world class standards in research and evaluative procedures. Strict adherence to GLP standards is our major motto. All animal rooms are efficiently supplied by air handling units to maintain the sterile environment for animals as per the guidelines prescribed by CPCSEA, Animal Welfare Division, MoEF, Govt. of India. The cell culture facility is similarly maintained in sterile conditions. ISO,OECD and NIH guidelines are being meticulously followed for preclinical studies.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : Ph.D. : 03

22. List of doctoral, post-doctoral students and Research Associates : Nil

23. Number of post graduate students getting financial assistance from the university : Nil

24. Highlight the participation of students and faculty in extension activities :

Name of the extension activities	Year of programme
Training programme on lab animal research	2016

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Students, Research scholars, Scientists and Staff who are involved in the fields of toxicology, drug discovery, cancer biology, nano medicine, bio-materials, behavior study and pre-clinical trials are being highly benefited. Also the centre is serving for skill development programmes and providing assistance to students / scholars by training.

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Strength:

- i. Pre clinical trials with lab animal models
- ii. Well equipped CPCSEA approved Lab animal facility with full fledged operation Theatre
- iii. Periodic organization of Workshops and Training Programmes
- iv. Radiology and ECG Facility for small animal
- v. Breeding of all small animals

b. Weakness:

- i. Absence of Large animal facility

c. Opportunities:

- i. Promotion of quality lab animal research
- ii. Platform for animal research in basic and applied biology
- iii. Exploring new therapeutic moieties against various diseases
- iv. In vivo tissue engineering of novel and clinically important scaffolds
- v. Standardization of traditional medicine

d. Challenges:

- i. Popularize the existence of the world class facility
- ii. Invite scholars of eminence to collaborate for the mutual benefit
- iii. Getting more funds for research
- iv. Gain international recognition (AALAC, FELASA etc.) and eminence

27. Future plans of the department

The centre will conduct conferences / workshops in lab animal handling and research. Further, it will assist project proposals for life science graduates, certificate courses in lab animal research, training programmes for lab animal handlers, degree courses in lab animal science & technology. It will also apply to national and international funding sources to carryout basic, advanced lab animal research and pre clinical trials. It is proposed to have collaborative research with other departments / national & international Institutions for mutual benefit.

1. **Name of the Centre** **Centre for Climate Change Studies**
2. **Year of establishment** : 2011
3. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Nil
4. **Participation of the department in the courses offered by other departments:**
Nil

5. **Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

S. No.	Name of the Faculty	Qualification	Designation	Area of specialization	Experience (years)	Research students under guidance
1.	Dr. T. Subramoniam	Ph.D., D.Sc., F.N.A.	Senior Scientist	Crustacean reproductive physiology and endocrinology	42	-
2.	Dr. Vinitha Ebenezer	M.Sc., Ph.D.	Scientist – C	Environmental Stress assessment, micro algae physiology, carbon sequestration,	10 years	1 Ph.D (ongoing)
3.	Dr. S. S. Vinu	M.Sc., Ph.D.,	Scientist – C	Differential gene expression studies, stress tolerance and adaptive response mechanism	10 years	-
4.	Dr. S. Prakash	M.Sc., Ph.D	Scientist - C	Taxonomy and reproductive physiology of crustaceans, molecular adaptations to climate change	7 years	-
5.	Dr. Thanga Suja	M.Sc., Ph.D	Scientist – C	Adaptations in drought tolerance rice varieties, crop-insect interactions and behavioral response to climate change	5 years	-

6. List of senior visiting fellows, adjunct faculty, emeritus professors

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1	Prof. A. Sathy Naidu , Professor	University of Alaska, Fairbanks, USA	2011
2	Dr. J. Boone Kauffman , Professor	Research Ecologist, USA Forest service, Professor, University of Oregon.	2011
3	Dr. Eben North Broadbent , Professor	DOE, GCEP Fellow, Standford University, USA	2011
4	Prof R. V. Ramarao , Director	IDPS, Visakhapatnam.	2011
5	Dr. Swadhin K. Behera Adjunct Professor	Dept. of Ocean Technology, Policy, and Environment ,The University of Tokyo	2013
6	Dr.Hariharasubramanian Annamalai	University of Hawaii, Hawaii	2013

7. Research thrust areas as recognized by major funding agencies

S. No.	Thrust areas of Research	Funding Agencies
1.	Carbon dioxide sequestration using micro algae	DST-SERB
2.	Physiology and Molecular adaptation to climate change	DST-SERB

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S. No.	Name of Faculty (PI and Co-PI)	Project title	Sponsoring national agency and Scheme	Total grants	Grants received so far	Duration	Status
1.	Dr. Vinitha Ebenezer (PI)	Interactive influence of temperature, CO ₂ , light and nutrient fluctuations on marine microorganisms with implications to global climate change: A mesocosm study	DST – SERB (Fast Track Young Scientist)	24,20,000/-	13,50,000/-	3 years	Ongoing
2.	Dr. S. S. Vinu (PI)	Screening of differentially expressed genes in larvae of <i>Macrobrachium rosenbergii</i> under abiotic stress	DST – SERB (Fast Track Young Scientist)	22,76,000/-	13,40,000/-	3 years	Ongoing
3.	Dr. S. Prakash (PI) Dr. T. Subramoniam (Co-PI)	Physiology and molecular adaptations of coral reef dwelling caridean shrimps to climate change	DST – SERB (Early Career Research Award)	21,20,000/-	-	3 years	Sanctioned
4.	Dr. S. Prakash	Status and safe exploitation of marine ornamentals from Gulf of Mannar, Tamil Nadu: An expensive reserve for conservation	The Rufford Foundation, London	5,06,300/-	5,06,300/-	1 year	Completed

9. Inter-institutional collaborative projects and associated grants received :

Nil

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received :

Nil

11. Research facility / centre with state recognition, national international recognition

Nil

12. Publications

Number of papers published in peer reviewed journals (national / international) : **27**

Monographs - **0**

Chapters in Books - **1**

Edited Books - **1**

Books with ISBN with details of publishers -

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS / WOS - **24**

Citation Index : **27**

SNIP : **0.510 – 1.203**

SJR : **0.28 – 1.89**

Impact Factor – Range : **1.536 – 3.652**

h-index : **2**

13. Details of patents and income generated

Nil

14. Areas of consultancy and income generated Nil**15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:**

Name of the faculty	Nature of visit	Sponsoring agency	Duration	University/Institution
Dr. S. Prakash Scientist - C	Fulbright-Nehru Post Doctoral Research Fellowship	United States-India Educational Foundation (USIEF)	15 th Aug. 2016 to 14 th Aug. 2018 (2 years)	Department of Biological Science, Clemson Univeristy, South Carolina, USA

16. Faculty serving in

a. National committees b) International committees c) Editorial Boards d) any other (please specify)

Name of the faculty	Organization/Committee or Journal Name	Type of Association	Duration
Dr. T. Subramoniam	International Foundation of Sciences, Sweden	Scientific advisor	-
	International Society of Invertebrate reproduction, Austria	Founder Member	-
	Indian National Science Academy, New Delhi	Member, Sectional Committee (Section 8)	-
	Indian National Science Academy	Panel member for INSA Inspire Faculty Scheme	2016-2017
	Proceedings of National Academy of Sciences	Editorial Board Member	2015-2017
Dr. S. Prakash	Society for Conservation Biology, USA	Developing Country Member	2015-2017
	British Ecological Society	Annual Member	2015-2016

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).
Nil

18. Awards / recognitions received at the national and international level by

Name of the faculty	Award Received	Agency	Type of Recognition	Place and Year of award
Dr. T. Subramoniam	Senior Fulbright Fellow	United States-India Educational Foundation (USIEF)	International	Bodega Marine Laboratory, University of California (1986-1987)
	NAGA award	ICLARM, Philippines	International	ICLARM, Philippines 1995
	Best Foreign Researcher award	JIRCAS	International	JIRCAS 2000
	National Fellowship	UGC	National	1993-1995
	Elected fellow	INSA, New Delhi, NAS, Allahabad, IAAS, New Delhi TNSA, TN	National	1995, 1996

	Outstanding Scientist	TNSCST	National	1997
	Jagadish Chandra Bose award	UGC, New Delhi	National	1998
	Chandrakala Hora Memorial Medal	INSA, New Delhi	National	2002
	Professor Harswarup Memorial Lecture Award	INSA, New Delhi	National	2008
Dr. Vinitha Ebenezer	JRF	Atomic Energy Research Board	National	2004-2006
	SRF	Atomic Energy Research Board	National	2006-2010
	Post Doctoral Reseach Fellowship	National Research Foundation of Korea	International	2011
	Young Scientist Award	The Korean Society of Environmental Biology	International	2014
Dr. S. Prakash	Senior Research Fellowship	Council of Scientific and Industrial Research, New Delhi	National	2013
	Small Grant Award	The Rufford Foundation, London	International	2014
	Fulbright-Nehru Post Doctoral Research Fellowship	United States-India Educational Foundation (USIEF)	International	2016
	Early Career Research Award	DST-SERB	National	2016

Dr. Vinu	Ph.D Scholarship	Chinese Academy of Sciences	International	2009-2012
	Post Doctoral Research Fellowship	National Taiwan University	International	2012-2013
Dr. Thanga Suja	Ph.D Scholarship	International Rice Research Institute, Philippines	International	2012-2015

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S. No.	Name of the convener	Title of the workshop	Sponsoring agency	Duration	Participants
1.	Dr.T. Subramoniam	Science Academies' Education Programme on "Climate Change Studies: An Organismal Approach"	INSA, New Delhi, NAS, Allahabad, IAS, Bangalore	27 th – 28 th March 2014	College students and research scholars in and around Tamil Nadu
2	Senior Scientist	Science Academies' Education Programme on "Advances in Microalgal Research and its Relevance to Climate Change"	INSA, New Delhi, NAS, Allahabad, IAS, Bangalore	21 st and 22 nd July 2016	College students and research scholars in and around Tamil Nadu

20. Code of ethics for research followed by the departments :

Centre for Climate Change Studies was established at Sathyabama University in 2011. The centre functions routinely in submitting proposals for Research calls announced by National and International funding Agencies. The Scientists involved in research work is agreement with the ethics laid by the university. The work related to the Proposals on acceptance and release of funds are taken up by the Investigators, collaborators and Research fellows strictly abiding in the way it was proposed and sanctioned, insisting timely deliverables within the allotted budget. The outcome of research is expected to be delivered in terms of Publications, Prototypes, Patents and products.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period Nil

22. List of doctoral, post-doctoral students and Research Associates: Nil

23. Number of post graduate students getting financial assistance from the university: Nil

24. Highlight the participation of students and faculty in extension activities. Nil

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- ❖ Carbon sequestration of micro algae using mesocosm study
- ❖ Screening of suitable microalgae with high potentials of photosynthesis and carbon sequestration capacity will be carried out under the laboratory conditions.
- ❖ Status survey on the coral reef associated animals in the Gulf of Mannar, Lakshadweep, Andaman and Nicobar islands. In particular, we proposed to study the life history patterns and various adaptation behaviors of cardidean shrimps
- ❖ Vulnerability of changing climatic components (temperature and pH) on the reproductive potentiality of coral reef associated shrimps

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Strength:

The centre has selected studies on marine ecosystems and its susceptibility to long term climate change factors. The centre has also selected coral reef regions of Gulf of Mannar and its sensitivity to anthropogenic activities. This area has not been included in the investigations of other centres of climate change studies

The proposed information centre will collect data pertaining to coastal changes during the past 50 years. These data are very useful to formulate a model system to study the effect of climate change on the east coast of India

A new approach to study the carbon sequestered by marine micro algae using microcosm study

b. Weakness:

Nil

c. Opportunities:

The problems we have chosen for research in the centre will open up new avenues on the protection of marine ecosystems by studying their changes due to long term climatic conditions.

d. Challenges:

A simulating marine ecosystems in the laboratory for our climate change studies will be a real challenge.

27. Future plans of the department.

We want to strengthen our research activities in three major lines: 1. The micro and macro algal research concerning carbon-dioxide sequestration in the marine environment, 2. Understanding the reproductive biology and social biology together with the symbiotic relationship of the coral caridean shrimps with other marine invertebrates, 3. Studying the differential gene expression profiles of fresh water prawn larvae in response to stress factors arising from long term climate change

1. Name of the Centre **Centre of Excellence for Energy Research**

2. Year of establishment : 2014

3. Names of any certificate / diploma Courses: Yes

S. No	Name of the Course offered	Certificate / diploma
1.	Training Program on Spectroscopy Techniques for Materials Analysis	Certificate
2	Training Program on Biodiesel Production and Characterization	Certificate

4. Interdisciplinary courses and departments involved: Yes

S. No	Name of the Interdisciplinary Course offered	Name of the Departments involved
1	M.Tech in Materials Science & Engineering	<ul style="list-style-type: none"> • Centre for Nanoscience and Nanotechnology • School of Mechanical Engineering • School of Bio and Chemical Engineering • School of Science and Humanities • School of Electrical and Electronics
2	M.Tech in Energy Engineering	
3	M.Sc. in Energy Science	

5. Courses in collaboration with other universities, industries, foreign institutions, etc: Nil

6. Participation of the Centre in the courses offered by other departments:

Participation as	Department
<ol style="list-style-type: none"> 1. Teaching 2. Scientific Interaction with UG/PG/ Ph.D., Students 3. Hands on training for PG/Ph.D., candidates on the advanced instruments like XRD, SEM, AFM, optical microscopes, Hall Effect Measurement, Potentiostat, galvanostat with Impedance analyser and UV-Visible Spectroscopy 4. Hands on training on Pilot Scale Biodiesel Production 5. Hands on Training on Biodiesel characterization including 	<ol style="list-style-type: none"> 1. Centre for Nanoscience and Nanotechnology 2. Centre for Waste Management 3. School of Mechanical Engineering 4. School of Bio and Chemical Engineering 5. School of Science and Humanities 6. School of Electrical and Electronics

7. Scientist profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D. / M.Phil, etc.)

S.No	Name of the Scientists/	Qualification	Designation	Specialization	Years of Experience	No. of Ph.D Scholars guided in the last 4 years
1.	Dr.T. Sasipraba (Co-ordinator)	Ph.D	Professor & Dean	Wireless sensor networks ,Computational modeling, GIS	20	12
2.	Dr.P.Kuppusami	Ph.D	Senior Scientist	Physics, Metallurgy and Materials Science and surface Engineering	35	6
3.	Dr.T.S.Shyju	Ph.D	Scientist-D	Thin Film Solar Cells	3	3
4.	Dr.S.S.Dawn	Ph.D	Scientist -E	Energy, Biowaste and Chemical Engineering	12	5
5.	Dr.J. Ramkumar	Ph.D	Scientist-C	Thin Film absorber materials for Solar Cell	1	-

S.No	Name of the JRF	Qualification	Title of the project involved	Specialization	Years of Experience
1	Ajithkumar S.	M.Sc Chemistry	Solid oxide fuel cells	Inorganic chemistry	-
2	Durai G.	M.Sc. Physics	Super capacitors	Metal Physics	-

S.No	Name of the JRF	Qualification	Title of the project involved	Specialization	Years of Experience
3	Karthik Kumar C.	M.Sc - Applied Chemistry	Solar Energy absorber Materials	Thin Films	-
4	Vengatesh Panneerselvam	M.Sc Chemistry	Perovskite Structured Materials	Solar Cells	-
5	Priyadharsini.P	MS.c, M.Phil	Bioethanol Production	Organic Chemistry	-
6	Santhosh. A	MS.c, M.Phil	Biodiesel Wash Water Treatment	Environmental Chemistry	-
7	Alok Ranjan	B.Tech, (M.Tech)	Solid Acids for Biodiesel Production	Chemical Engineering	-
8	R. Janice	M.Sc	Microbial production of biodiesel feedstock	Biotechnology	

8. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1.	Pr. Jean-François PIERSON Professor	Institut Jean Lamour (UMR CNRS 7198) Département CP2S Université de Lorraine Parc de Saurupt CS 50840, 54011 Nancy, France	2014
2.	Dr. Hideyuki MURAKAMI Professor	Surface Kinetics Group, High Temperature Materials Unit National Institute for Materials Science (NIMS), Japan.	2014
3.	Dr. Eiji Akiyama Professor	Environmental Durability Group, Materials Reliability Unit, National Institute for Materials Science (NIMS), 1-2-1 Sengen, Tsukuba, Ibaraki, 305-0047, Japan	2014
4.	Prof. Masakazu Okazaki Professor	Department of Mechanical Engineering, Nagaoka University of Technology, 1603-1, Kamitomiokamachi, Nagaoka, Niigata, 940-2188, Japan	2014
5.	Dr. Alok Singh Professor	Structural Materials Unit National Institute for Materials Science (NIMS), Tsukuba, Japan	2014
6	Dr. N. Subramanian Professor	Head, X-scattering section, IGCAR, Kalpakkam	2014

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
7	Dr.S.Elangovan, Head , Advanced Energy System Division	VSSC, Trivandrum	2014
8	Dr.H Annamalai, Senior Researcher	International Pacific Research Centre, USA	2014
9	Dr.Venkatratnam, Scientist-G, Pilot Plant Head	CLRI, Chennai	2014
10	Mr.S.Murugaraja, Process Design Engineer	GE, Bangalore	2014
11	Dr. Gouthanm De	Chief Chemist&head, Nanostructured Materials Division, CGRI, Kolkata	2015
12	Prof. D.D. Sarma	Chairman, Solid State &Structural Chemistry Unit, IISC, Bangalore	2015
13	Mr.Raj Kumar	Central Pollution Control Board, Bangalore	2015
14	Mr. Balasubramanian Ramasamy	Energy Conversion and Management Hochschule Offenburg, Germany	2015
15	Dr. David Horwat	University of Lorraine, France	2016
16	Dr. Goutam Kumar Dalapati	IMRE, Singapore	2016

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
17	Prof. Abraham Atta Ogwu	University of the West of Scotland, Scotland	2016
18	Dr. P.Miska	University of Lorraine, France	2016
19	Dr. Frederic Sanchette	Institut Charles Delaunay, France	2016
20	Dr. M.V. Reddy	NUS, Singapore	2016
21	Dr. Sangaraju Shanmugam	DGIST, South Korea	2016
22	Dr.Vignesh Suresh	IMRE, Singapore	2016
23	Dr. Kevin S. Paulson	Dean University of Hull, UK	2016
24	Dr.Dipesh Patil,	Chemical Engineering University of Hull, UK	2016
25	Mr.C.Rajeswara Rajha	Chairman Sai Chamois Inc.,Perundurai	2016

10. Research thrust areas recognized by funding agencies

S.No	Name of Principal Investigator	Title of the Project	Funding Agency	Year of Sanction	Amt. Sanctioned (Lakhs)	Duration
1	Dr. T. Sasipraba, Dr.P.Kuppusami, Dr.T.S.Shyju and Dr.S.S.Dawn	Energy Research	MHRD	2014	400	4-years
Total					400	

11. Inter-institutional collaborative projects and grants received : NIL

12. Projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received. : NIL

13. Is your research Centre or any facility recognized by a State/National/International body : NIL

14. Special research laboratories sponsored by / created by industry or corporate bodies:

S.No	* Name of the Equipment	Agency Sponsored / Industry
1	Thickness Measurement Device	MHRD
2	Impedance Analyzer	MHRD

S.No	* Name of the Equipment	Agency Sponsored / Industry
3	Hall effect	MHRD
4	UV-Visible Spectroscopy	MHRD
5	Bio-Diesel Plant	MHRD
6	Bio Hydrogen Production Unit	MHRD
7	GC –TCD/FID	MHRD
8	Electrolytic Cell	VSSC,ISRO

15. Publications

Number of papers published in peer reviewed journals (national / international) : 22

Monographs - Nil

Chapters in Books - Nil

Edited Books - Nil

Books with ISBN with details of publishers - Nil

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS / WOS – 14

Citation Index : 1- 53
 SNIP : 0.31 – 1.653
 SJR : 0.16 – 2.77
 Impact Factor – Range : 0.025 – 8.262
 h-index : 02

16. Areas of consultancy and income generated:

S.No	Sponsoring Agency	Nature of Consultancy	Amount Sanctioned (Rs)	Duration
1	Anna University, Bharath University, VIT and PSG	Thickness measurements by DEKTAK stylus profiler	55, 000	2015-2016
2	Anna University, Sathyabama University and N.NM Jain Engineering College	Potentiostat-galvanostat Impedance Spectroscopy	1,50,000	2016
3	Bharath University	Hall Effect measurements	45, 000	2016
4	Anna University, Chennai B.S Abdul Rahman University, Chennai SRM University, Chennai GKM college of Engineering, Chennai ISRO-VSSC, Trivandrum VIT University, Chennai	Optical property Measurements by UV-Visible spectroscopy	90, 000	2015-2016

17. Scientists selected nationally/ internationally to visit other laboratories in India and abroad

S. No	Scientist Name	Name of the laboratory / Institution	Duration	year
1.	Dr. J. Ramkumar	Department of Physics, Faculty of Physical Sciences and Mathematics, University of Concepcion, Concepcion, Chile	3 years	March 2016-Feb 2019
2	Dr. T.S. Shyju	Department of Physics, Faculty of Physical Sciences and Mathematics, University of Concepcion, Concepcion, Chile	3 years	March 2016-Feb 2019
3.	Dr. P. Kuppusami	IGCAR, Kalpakkam, Kalpakkam, BARC, Mumbai.	40 days	2013-2016
4	Dr.S.S. Dawn	CLRI, Chennai	20 days	2014-2016

18. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)

S. No	Name of the Scientist	Name of the Steering Committee National / International
1.	Dr.P.Kuppusami	Staff Selection Committee member in IGCAR and BARC
		Vice-Chairman- Technical Committee for International conference on Energy materials, 2014
		Convener, The International Conference on Nanoscience and nanotechnology for Energy Applications (EApp-2016), June 27th-29th, 2016.
2	Dr. S. S. Dawn	Convener, RENEW Mini Projects 2014 (Research Exploration for Novel and Ecofriendly Waste Management)

		Convener, Awareness Programme to highlight the importance of Domestic Waste Recycling
		Convener, RENEW Mini Projects 2015 (Research Exploration for Novel and Ecofriendly Waste Management)

S. No	Name of the Faculty	Editorial board name of the journal
1.	Dr. P. Kuppusami	Review Member of Journals : <ul style="list-style-type: none"> • Surface Engineering, • Surface and Coatings Technology, • Met Trans.A
2	Dr. S.S. Dawn	<ul style="list-style-type: none"> • International Journal on Applied Bioengineering • National Journal on Chembiosis

19. Awards / recognitions received at the national and international level by

S.No	Name of the event	Institution / organization	National / international	Date	Remarks / achievements
1	Postdoctoral research fellowship	National Fund for Scientific Research and Technological Development (FONDECYT) of National Commission of scientific Research and Technology (CONICYT) University of Concepcion, Chile.	International	2015	International Collaboration / Exchange Programme

2	Two Best Oral Paper Awards	International conference on Nanoscience and Nanotechnology for Energy Applications(EApp-2016) organised by Sathyabama University	International	June 27 th -29 th , 2016	The Conference was conducted in association with the Institute Jean Lamour, University of Lorraine, France

20. Code of ethics for research followed by the Centre:

We promote knowledge, truth, and avoidance of error while experimenting, collecting data or information and during publication. Prohibition against fabricating, falsifying or misrepresenting research data will be strictly adhered to by every individual of the centre.

- Research often involves a great deal of cooperation and coordination among different researchers from different disciplines. Therefore, ethical standards that promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness shall be followed in true spirit.
- The Principal investigator must ensure that the fellow collaborators to know about the purpose of the research, nature of work, expected duration and procedures.
- The Centre will strive to promote mentors with international skill, and educate students to carry out research and promote their welfare and allow them to make their own decisions.
- The Centre shall ensure every researcher to receive credit for their contributions and shall not allow their ideas either stolen or disclosed prematurely.

- Centre shall ensure that researchers can be held accountable to the public because researchers are funded by public money.
- The Centre shall make serious effort to build public support for research and publications will be based on the faithful reproduction of the original research carried out by the individual or a group.
- The Centre shall avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.
- While publishing any new idea, a product or a model, the Centre must ensure the impact of the research on moral and social values, such as social responsibility, human rights, health and safety.
- When conducting research on human subjects, the Centre shall minimize harms and risks and maximize benefits; respect human dignity, privacy, and autonomy; take special precautions with vulnerable populations; and strive to distribute the benefits and burdens of research fairly.

21. Diversity of staff

Total number of Scientists	No of Scientists who are graduates of the same university	%	No of Scientists from other universities within the State	%	No of Scientists from universities from other States	%	No of Scientists from universities outside the country	%
5	2	40	3	60	NIL		NIL	

22. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Name of the Scientists	Name of the Degree	Year
1. Dr. J. Ramkumar	Ph.D	2015

23. List of doctoral, post-doctoral students and Research Associates: (Only Number required in each category) :

- a) from the host university: 1
- b) from other universities : 1

24. Briefly highlight the contributions of the Centre in generating new knowledge, basic or applied.

Centre of Excellence for Energy Research at Sathyabama University funded by MHRD would make it to become a regional leader and serve as a nodal centre in the research and development programs of energy sectors. The core group of the centre has competent enough as they already initiated several activities in the area of energy materials. The following table indicates the energy research in the areas of renewable energy (solar cells, supercapacitors and fuel cells) and bio-energy (bio-diesel, bio-gas and alcohol production) that are being pursued in the Centre.

Sl.No	Research Areas
1.	Solar cell and Solar thermal <ul style="list-style-type: none">✓ Polycrystalline silicon thin film pn junctions✓ Compound and Multi-junction photovoltaics (CPV)
3.	Fuel cell <ul style="list-style-type: none">✓ Solid oxide fuel cells✓ Supercapacitors
4.	Bio-Energy <ul style="list-style-type: none">✓ Biodiesel- algae✓ Bio-Ethanol – seaweed✓ Bio-hydrogen- Food Waste

25. Future plans of the Centre:

The Centre of Excellence for Energy Research at Sathyabama University aims to enhance the quality and quantity of basic and applied research programs in energy studies. The Centre also would organize training programs/workshops/conferences for students, researchers, academic staff, and scientists in India to further strengthen their expertise in the areas of energy research, to accelerate the India's human development index and to provide energy security. In addition we are planning to start research courses for post graduate students for the development society. This centre would contribute significantly in building a robust research centre for energy to carry out R&D programmes in the areas of Solar Cell, Solar Thermal, Fuel Cell, Supercapacitors and Bio-energy and for the sustainable energy.

26. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the Centre.

- The Centre has strong infrastructure, experts in energy research, and adequate research scholars to focus on sustainable energy research.
- The Centre would provide opportunities to carry out interdisciplinary research activities in Physics, Chemistry, Materials Science, Chemical, Marine, Automobile and Mechanical Engineering.
- The Centre is expected to manage the challenging tasks of education, training, research and development programmes in the novel and newly emerging areas of energy research, particularly energy materials.
- The Centre would also lend technological support in collaboration with private and governmental organizations in meeting the energy requirements of the society.
- The Centre would further, continue to steer and organize several national and international workshops and conferences in the energy research to update its technical skill with the collaboration of world leaders in the energy sectors.
- The Centre would motivate our students and public in energy research by conducting workshops and exhibiting energy related demo-models.
- The Centre is keen to impart training and diploma programmes for the students and research scholars to impart the scientific knowledge to the society
- We would provide opportunities for young researchers to get Post doctoral position in national/international Universities and Research institutes around the world.
- The weakness relates to in-adequate number of post doctoral fellows to mentor budding researchers on daily basis.

1. Name of the Centre **Centre for Drug Discovery and Development**

2. Year of establishment : 2013

3. Courses in collaboration with other universities, industries, foreign institutions, etc. :

Drug discovery course planned with University of Missouri, USA., Columbia for life science students.

4. Participation of the department in the courses offered by other departments :

Participation as	Subject	Department
<ul style="list-style-type: none"> Utilization of infrastructure 	Microbial bioprospecting Actinobacterial repository Extraction and concentration of bioactive extracts Cell culture facility Anti TB screening Antiviral screening	<ul style="list-style-type: none"> Biotechnology Bioinformatics Biomedical engineering Chemical Engineering
<ul style="list-style-type: none"> UG and PG students Dissertation work 	Bioprospecting of marine actinobacteria	<ul style="list-style-type: none"> Biotechnology

5. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

S. No	Name	Qualification	Designation	Specialization	Research Experience In years
1	Dr. Jerrine Joseph	M.Sc., Ph.D.,	Scientist D & Centre In-charge	Cancer biology; Bioinformatics; Anti TB natural products	15
2.	Dr. Rajagopalan Bhaskaran	M.Sc., Ph.D.,	Scientist G	Structural biology	35
3.	Dr. M. Radhakrishnan	M.Sc., M.Phil., Ph.D.,	Scientist C	Diversity and bioprospecting of actinobacteria	10
4.	Dr. A. Suresh	M.Sc., M. Phil., Ph.D.,	Scientist C	Antibiotic resistance; Chronic wound management	9
5.	Mr. S. Anbarasu	M.Sc., (Ph.D.,)	Scientist B	Anti TB drug discovery; probiotics	12
6.	Dr. Krupakar Parthasarathy	M.Sc., Ph.D.,	Scientist D	Infectious diseases diagnostic and therapeutic, Chemical biology, protein engineering	13
7.	Dr. M. Manikannan	M.Sc., Ph.D.,	Scientist C	Antiviral drug discovery and immune modulation	14
8.	Dr. V. Gopikrishnan	M.Sc., Ph.D.,	Senior Scientific Assistant	Actinobacteriology; biofilm biology	7
9.	Dr. T. Rajasekar	M.Sc., M.Phil., Ph.D.,	Scientific Assistant	Phytochemistry; immune modulation	8
10	Ms. K. Revathy	B.Tech., (M.Tech By Research)	Technical Assistant	Anti TB screening	2
11	M. Kaliraj	M.Sc., M.Phil.,	Technical Assistant	Antiviral screening and cell culture	6

Staffs recruited through projects

S.No	Name of the JRF/SRF	*Qualification	Name of the PI	Project Title	Funding Agency	Sanctioned Year & Duration
1	Ms. G. Vijayalakshmi (JRF)	M.Sc.,	Dr.M. Radhakrishnan (Dr. Vanaja Kumar)	Diversity (cultivable and culture independent), ex-situ conservation and bio-prospecting of marine actinobacteria for antibiotics, anti-tuberculosis, anti-HIV and immunomodulatory substances	DBT	2015; 3 years
2	Mr. P. Kesavan (Field Assistant)		Dr.M. Radhakrishnan	Diversity (cultivable and culture independent), ex-situ conservation and bio-prospecting of marine actinobacteria for antibiotics, anti-tuberculosis, anti-HIV and immunomodulatory substances	DBT	2015; 3 years
3	Ms. S. Ayswarya (Research Assistant)	M.Sc.,	Dr.M. Radhakrishnan	Exploring the antibiotic potential of siderophores(sideromycins) from marine -derived actinobacteria against multi drug resistant Gram negative bacterial pathogens	DST-YS	2016; 3 years

4	Mr. G. Ruban (JRF)	M.Sc, M.Phil.,	Dr. Krupakar Parthasarathy	Controlling the Dengue virus infection using extracts of marine Actinomycetes by identifying the mechanistic route involving the envelope /Nucleo capsid protein.	DST-YS	2016; 2 years
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6. List of senior visiting fellows, adjunct faculty, emeritus professors :

S.No	Name and Designation of the Visiting adjunct Faculty	Institution /University	Year
1	Dr. Antony Chua, Scientist	National University of Singapore	2014
2	Dr. Sanjib Bhakta, Professor & Head	University of London, UK	2015
3	Dr. Jerry Parker, Dean	University of Missouri, USA, Columbia	2015
4	Dr. Mah Lee Mary, Professor	National University of Singapore	2016

7. Research thrust areas as recognized by major funding agencies

- Diversity and bioprospecting of marine actinobacteria
- Anti TB drug discovery
- Antiviral drug discovery for against HIV, Dengue and HSV

- Marine natural products
- Therapeutics for neurodegenerative diseases
- Quorum sensing inhibitors

8. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

S.No	Name of the Investigators	Title of the Proposal	Agency	Amount Sanctioned (Rs in lakhs)
	National funding agencies			
1.	Dr. Vanaja Kumar & Dr. M. Radhakrishnan	Coordinated project on Diversity and bioprospecting of marine actinobacteria	DBT	39.12
2.	Dr. M. Radhakrishnan	Exploring the antibiotic potential of siderophores (sideromycins) from marine -derived actinobacteria against multi drug resistant Gram negative bacterial pathogens	DST-SERB (YSS)	18.2
3.	Dr. Krupakar Parthasarathy	Controlling the Dengue virus infection using the extracts of marine Actinomycetes by identifying the mechanistic route involving the Envelope/Nucleo-capsid protein	DST- Young Scientist	28.46
4.	Dr. Sureshbabu Nagarajan	Investigation of natural products from marine source for treatment of neurodegenerative diseases	DST-SERB	24.3

S.No	Name of the Investigators	Title of the Proposal	Agency	Amount Sanctioned (Rs in lakhs)
5.	Dr. Jerrine Joseph	Characterization, structure elucidation and druggability studies of three potential anti TB metabolites from novel <i>Streptomyces sp</i> ANS2 isolated from Andaman and Nicobar marine sediments	DBT	32.5
6.	Dr. G. P. Pazhani	Sensitization of colicin resistant E. coli by cell penetrating peptides	DST-Early Career Research	17.9
7.	Dr. M. Manikannan	Targeting the Herpes Simplex Virus (HSV) entry and fusion by identifying the glycoprotein inhibitors from marine algae Sargassum	DST	32.50
8.	Dr.V.Gopikrishnan	Bioprospecting of fish-associated actinobacteria for Quorum sensing inhibitors effective against microbial biofilms	DST-SERB-ECR	20.25
9.	Dr. Rajasekar. T	Immune enhancement using sulfated polysaccharides isolated from marine algae (Seaweeds) against <i>Mycobacterium marinum</i>	DST_SERB_ECR	32.45
TOTAL	9			Rs. 243.28 lakhs

9. Inter-institutional collaborative projects and associated grants received :

S.No	Name of the Investigators	Name of the collaborating institution	Title of the Proposal	Agency	Amount Sanctioned (Rs in lakhs)
1.	Dr. Vanaja Kumar	<ul style="list-style-type: none"> ➤ National Institute for Research in Tuberculosis, ICMR, Chennai ➤ Periyar University, Salem ➤ IIT Madras 	Purity and in vitro efficacy testing on Transimycin	ICMR	2.4
2.	Dr. Vanaja Kumar & Dr. M. Radhakrishnan	<ul style="list-style-type: none"> ➤ Periyar University, Salem ➤ Annamalai University, Parangipettai 	Coordinated project on Diversity and bioprospecting of marine actinobacteria	DBT	39.12
3.	Dr. Jerrine Joseph	<ul style="list-style-type: none"> ➤ Periyar University, Salem 	Characterization, structure elucidation and druggability studies of three potential anti TB metabolites from novel <i>Streptomyces</i> sp ANS2 isolated from Andaman and Nicobar marine sediments	DBT	32.5
			TOTAL		Rs. 73.21 lakhs

10. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received:

S.No	Name of the Investigators	Title of the Proposal	Agency	Amount Sanctioned (Rs in lakhs)
1.	Dr. Vanaja Kumar & Dr. M. Radhakrishnan	Coordinated project on Diversity and bioprospecting of marine actinobacteria	DBT	39.12
2.	Dr. M. Radhakrishnan	Exploring the antibiotic potential of siderophores (sideromycins) from marine - derived actinobacteria against multi drug resistant Gram negative bacterial pathogens	DST-SERB (YSS)	18.2
3.	Dr. Krupakar Parthasarathy	Controlling the Dengue virus infection using the extracts of marine Actinomycetes by identifying the mechanistic route involving the Envelope/Nucleo-capsid protein	DST- Young Scientist	28.46
4.	Dr. Sureshbabu Nagarajan	Investigation of natural products from marine source for treatment of neurodegenerative diseases	DST-SERB	24.3
5.	Dr. Jerrine Joseph	Characterization, structure elucidation and druggability studies of three potential anti TB metabolites from novel <i>Streptomyces sp</i> ANS2 isolated from Andaman and Nicobar marine sediments	DBT	32.5
6.	Dr. G. P. Pazhani	Sensitization of colicin resistant E. coli by cell penetrating peptides	DST-Early Career Research	17.9
7.	Dr. M. Manikannan	Targeting the Herpes Simplex Virus (HSV) entry and fusion by identifying the glycoprotein inhibitors from marine algae Sargassum	DST	32.50

8.	Dr.V.Gopikrishnan	Bioprospecting of fish-associated actinobacteria for Quorum sensing inhibitors effective against microbial biofilms	DST-SERB-ECR	20.25
9.	Dr. Rajasekar. T	Immune enhancement using sulfated polysaccharides isolated from marine algae (Seaweeds) against <i>Mycobacterium marinum</i>	DST_SERB_ECR	32.45
TOTAL				Rs. 243.28 lakhs

11. Research facility / centre with state recognition, national international recognition : NIL

12. Publications

Number of papers published in peer reviewed journals (national / international) :

Monographs - 0

Chapters in Books - 1

Edited Books - 0

Books with ISBN with details of publishers - 0

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): SCOPUS – 56 ; WOS - 6

Citation Index :

SNIP : 0.5 – 1.25

SJR : 0.1 – 0.84

Impact Factor – Range: 0.353 – 3.8

h-index : 4

13. Details of patents and income generated : Nil

14. Areas of consultancy and income generated

Areas of consultancy	Income generated (Rs.)
Evaluating the in vitro and in vivo efficacy of herbal formulations as anticancer therapeutics	Rs. 50,000/-

15. Faculty selected nationally / internationally to visit other laboratories / institutions /industries in India and abroad:

Name of the faculty	Institutes visited
Dr. Rajagopalan Bhaskaran, Scientist G	University of Missouri, USA, Columbia
Dr. Krupakar Parthasarathy	National University of Singapore

16. Faculty serving in

a. National committees b) International committees c) Editorial Boards d) any other (please specify)

S. No	Name of the Scientist	Name of the Steering Committee National / International
1	Dr. Jerrine Joseph	Member Secretary – Institutional Human Ethics Committee (Sathyabama University)
2	Dr. M. Radhakrishnan	Editorial board -The SciTech Journal Reviewer – Journal of Applied Pharmaceutical Science Reviewer – Journal of Microbial Pathogenesis
3	Dr. Krupakar Parthasarathy	Reviewer - Tropical Biomedicine Journal

17. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**-NIL-****18. Awards / recognitions received at the national and international level by**

S.No	Name of the event	Institution / organization	National / international	Date	Remarks / achievements
Dr. Vanaja Kumar					
1	National Conference of Indian Association of Applied Microbiologists	SRM University, Chennai	National	Dec 11,09	Received Lifetime Achievement Award
2	National Conference	Indian Oriental Heritage, Kolkota	National	Feb 2, 2001	Received " Swami Vivekananda Lifetime Achievement award "
3	Golden Jubilee Celebration	CAS in Marine Biology, Annamalai University	National	March 10,2002	Selected and awarded as " Outstanding Alumini "
Dr. M. Radhakrishnan					
4	9 th National Conference of Indian Association of Applied Microbiologists	Periyar University, Salem	National	Oct 14,11	Received Anand Rao Memorial Award
5	National Conference on "Current perspectives in Biotechnology, Healthcare and Environment"	Dr. MGR (Educational and Research Institute) University	National	April15 & 16,2013	Received Best Paper Award
6	11 th National Conference of Indian Association of Applied Microbiologists	PSG College of Arts & Science, Coimbatore	National	Nov 29 & 30,13	Received Young Scientist Award for 10 years of research contribution in the field of Actinobacteriological research

S.No	Name of the event	Institution / organization	National / international	Date	Remarks / achievements
Dr. Jerrine Joseph					
1	Post Doc fellowship	Indian Council of Medical Research	National	2011-2013	Aberdeen University (Scotland) and Birbeck University (London) UK
Dr. Krupakar Parthasarathy					
1	Post Doctoral Fellow	National	International	2011-2014	National University of Singapore

19. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

S.no	Date	Workshop/Seminar name	Outstanding participants
1	24-07-15	<i>Indo- UK Joint Seminar On Dynamic Approaches In Handling Antibiotic Resistance In TB</i>	Students, scholars and academicians from various colleges of Tamil Nadu
2	01-08-15	<i>Indo- USA joint seminar on the current trends in translational medicine</i>	Life Sciences students and scholars from colleges in Chennai
3	24-07-15	Workshop on Spirulina Cultivation	Biotechnology students
4	10 th and 11 th Feb-2016	Workshop on "Basics of Computer Aided Drug Design And Discovery"	Research scholars
5	08-03-16	International seminar on "challenges in commercialization of viral rapid diagnostics and therapeutics"	Students, scholars and academicians from various colleges of Tamil Nadu

20. Code of ethics for research followed by the departments :

The bioactivity division of the centre involves in TB and HIV research. Biosafety in M. tuberculosis (TB) research laboratory and Human immunodeficiency virus (HIV) research laboratory are to be strictly maintained according to the guidelines in order to avoid any untoward incidents or accidents. In case of breach of such guidelines remedial measures are to be made available following guidelines. Research work will be carried out in BSL-3 facilities, in which a ducted exhaust-ventilation system is provided. A system creating a directional air flow draws air into the laboratory through the entrance and maintains the laboratory under negative pressure relative to outside. The exhaust air is discharged directly outside the laboratory through high-efficiency particulate air (HEPA) filter. Personnel entering into the laboratory should wear laboratory shoes and gowns. The laboratory personnel working in labs should wear gloves while handling biological samples. The containers used for collecting clinical specimens infected with M. tuberculosis and HIV are to be opened in a class II biosafety cabinet (BSC). Scaled centrifuge buckets (safety cups) are to be used and opened in BSC. The HEPA filtered exhaust air from BSC are to be discharged outside the laboratory but in case of HIV work the filtered air will be heated to kill the virus before discharge to the environment. The contaminated pipettes are to be discarded horizontally in a container immediately after use. Work surfaces are to be decontaminated at least once a day with an appropriate disinfectant and immediately in case of any accidental contamination with infectious materials. The discarded cultures are to be properly autoclaved and channeled by biomedical waste management system. It will be made mandatory for all the laboratory workers to disinfect their hands after manipulations with an appropriate disinfectant, after removing gloves and before leaving the laboratory.

21. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Number of faculties who were awarded	Number of faculties
M.Phil.,	0
Ph.D.,	2
D.Litt	0

22. List of doctoral, post-doctoral students and Research Associates

Doctoral students	1. G. Vijayalakshmi 2. K. Ruban 3. S. Ayswarya
PDF students	-
Research Associates	-

23. Number of post graduate students getting financial assistance from the university : NIL

24. Highlight the participation of students and faculty in extension activities.

Name of the extension activities	Year of programme
TB awareness programme	2013, 2014, 2015
IPR Awareness workshop	2013

25. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

- A centralized service facility for screening extracts/compounds for anti TB activity and anti HIV activity
- Molecules from plants, marine organisms, actinobacteria and other microbes from less/unexplored ecosystems leading to creation of a drug library
- Drug target identification to strengthen drug discovery initiatives
- Developing the know-how in In vitro and in silico screening to enhance the pace of drug discovery by playing a pivotal role
- In vitro and in vivo studies to validate the findings and to optimize the lead compounds paving the way for novel drugs
- Novel drugs that will redefine the regimen for TB and HIV
- Auxiliary use of metabolites from microorganisms for purposes other than as anti infectives.

26. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

- a. Strength:** Dedicated, sophisticated BSL III facility for anti TB and antiviral screening.
- Proteomics and genomics lab for drug target studies
 - Inhouse consortium of actinobacteria [>250] from rare ecosystems
 - Rapid phage-based assay for anti-TB screening
- b. Opportunities:** Consultancy for anti TB, antiviral and anticancer screening
- Scope for national and international collaboration on natural product drug discovery
 - Awareness and knowledge dissemination on Infectious diseases and drug discovery
 - Motivate, mentor and monitor of doctoral students for their dissertation.

27. Future plans of the department.

- Establishing a dedicated facility with supportive biorepository intended to strengthen the research activity in the ongoing anti TB and anti HIV drug discovery and anti cancer drugs.
- Compounds from plants, marine organisms and those from actinobacteria isolated from less/unexplored ecosystems will be taken to the forefront to be developed as anti TB and anti HIV drugs
- Molecular targets of M. tuberculosis and HIV will be identified and validated; novel drugs acting on novel/ideal targets will strengthen the armamentarium against infectious diseases

