# SATHYABAMA

### INSTITUTE OF SCIENCE AND TECHNOLOGY
#### (DEEMED TO BE UNIVERSITY)
**Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE**

www.sathyabama.ac.in

## INTERNAL QUALITY ASSURANCE CELL

### ACADEMIC AND ADMINISTRATIVE AUDIT REPORT – INTERNAL
### ACADEMIC YEAR 2018-19
### 27.02.2019 & 28.02.2019

| S. No. | Parameter | Verification Yes/No | Observations / Suggestions |
|---|---|---|---|
| | | **Curricular Aspects** | |
| 1 | Is curriculum in line with local/national/regional/global needs and with PO, PSO | Yes | |
| 2 | Is the curriculum focus on employability / skill development/ entrepreneurship | Yes | • The curriculum has components with special focus on employability, entrepreneurship. Capstone projects, Domain specific elective courses and internships (456 courses focuses on the above) |
| 3 | Is new course introduced and syllabus periodically updated | Yes | • 76 new courses introduced. |
| 4 | Is CBCS / elective system implemented | Yes | • Implemented in 23 programmes<br>• 222 courses are offered as CBCS |
| 5 | Whether the issues of Environment and Sustainability, Gender, Human Values and Professional Ethics addressed by courses | Yes | • Courses on Environmental Science and Principles of Management and Professional Ethics are in curriculum<br>• Course on Human values is not yet introduced in the curriculum<br>• Activities are conducted for promotion of universal Values and Ethics |

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| 6 | Is value added course/ field projects /research projects/ internships introduced and students enrolled | Yes | • 72 value added courses<br>• Internships are mandatory and carry credits. |
| 7 | Is Stakeholder feedback taken for the design and review of syllabus and action taken | Yes | • Curriculum formulation / revision are based on the inputs and feedback from students, faculty, Industrial experts, Alumni and employers. Verified BoS minutes. |

## Teaching, Learning and Evaluation

| | | | |
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| 8 | Is measures taken for supporting advanced learners and slow learners? | Yes | Supporting system for Advanced Learners/ Slow learners – Proof Verified<br>• Merit Scholarship<br>• Student's publications<br>• Participation in technical / non technical events / club activities / student chapters<br>• Special classes for slow learners<br>• Constant monitoring of attendance, performance and counseling encouraging for slow learners. |
| 9 | Student – Full time teacher ratio | | 1:20 |
| 10 | Is student centric method used for enhancing learning experiences? | Yes | • Workshop organized on understanding student centric policies and implementation<br>• Field Projects for experiential and participative learning.<br>• Audio- Visual methodology<br>• Ability Enhancement and Skill Enhancement courses<br>• Project based learning approach<br>• Flipped classroom<br>• Case studies<br>• Addressing complex engineering real time problems<br>• Discussions and debates |
| 11 | Is ICT enabled Teaching / Examination / evaluation practiced? | Yes | • 120 ICT enabled classrooms<br>• E-resources are used in teaching learning |

| 12 | Number of full-time teachers with Ph.D | | • 390 |
|---|---|---|---|
| 13 | Number of teachers who received awards and recognitions | Yes | • 115 awards / recognitions received by faculty. |
| 14 | Is grievances related to teaching - learning / examination / evaluation / facilities addressed? | Yes | • 33 general student's grievances and 0.22 % of student's grievances about evaluation are redressed by Student's Grievance cell. |
| 15 | Availability /Dissemination /Attainment of POs, PSOs, Cos | Yes | • The COs, POs, PSOs are disseminated to all stakeholders through notice boards, circulars, website, newsletters, Record books, E mail subject attachments etc.<br>• The attainment of Pos, PSOs and COs are evaluated. |
| 18 | Average Pass Percentage | Yes | • 85.76 % |
| 19 | Is Student satisfaction survey (SSS) taken on teaching learning process ? | Yes | • http://cloudportal.sathyabama.ac.in/iqac_feedback/login.php<br>• Corrective actions are immediately initiated and effectiveness of the corrective action are reviewed by the HoD's / Deans. |
| **Research and Development** | | | |
| 20 | Is Seed Money received for research? | Yes | |
| 21 | Is national/ international fellowship received/ financial support for advanced studies/ research/ innovation and incentives provided by the institution? | Yes | Felowships received by researchers:<br>• From Ministry of Taiwan<br>• Indo-US Purdue Partnership Programme DST-SERB OVDF<br>• Research Internship TEEP-ASIA<br>• Senior Post Doctoral Fellow, National Institute of Health<br>• Korean Research Fellowship (KRF), National Research Federation of Korea<br>• SCOPE Scholarship - Seoul World Obesity Federation and Kuwait World Obesity Federation<br>• Visiting Doctoral Programme - Swedish Research Council |

| | | | |
|---|---|---|---|
| | | | • Mevlana Exchange Programme - Turkey Higher Education Council<br>• Erasmus Plus Programme - European Union<br>• Financial support provided for faculty exchange programme.<br>• Faculty have visited universities abroad under faculty exchange programme. |
| 22 | Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled | Yes | • 20 JRF , 2 SRF, 2 PDF |
| 23 | Is Extramural funding for Research /by Govt/ / Non-govt. agencies/Fund for organizing seminars and conferences received? | Yes | • 56 new projects worth around<br>• 6.77 crores have been sanctioned<br>• 2 funded programmes organized<br>• Funding agencies – MHRD, MoES, DST, AICTE, DBT, ISRO, DRDO,DBT, ICMR,UBA,TBI, MoES, ICAR-NICRA/Govt. of India, Hyderabad, HRDG CSIR, ICMR. |
| 27 | Eco system for innovations including Incubation centre and other initiatives | Yes | • TBI incubates – 3 sponsored from DST |
| 28 | Is workshops/seminars conducted on Research methodology, IPR, entrepreneurship, skill development | Yes | • 149 programs organized |
| 29 | Patents published/awarded | | • Granted – 32<br>• Published –05<br>• Filed – 22 |
| 30 | Research papers / books and chapters / e-content / Citation Index/ h-index | | - 881 publications in Scopus and UGC notified journals<br>- Highest impact factor is 6.0176<br>-02 books published by faculty from Physics department<br>• 218 Book chapters. |
| 31 | Extension activities in the neighbourhood community / awards received / programs conducted/ students participated | Yes | • 56 Outreach/Awareness Programmes organized.<br>• Awards and recognition received from Indian red cross society, NCC |
| 32 | Collaborative activities/functional MoUs | Yes | • 47 Collaborative MoU's with Industries and Universities at National (23) and International Level (24).<br>• 24 student and faculty exchange programs<br>• 8 research collaborations |

| | | | • Industry Internships mandatory for students |
|---|---|---|---|
| 33 | Awards and Recognitions | Yes | • Awards received by students in sports and cultural activities both in intra and inter collegiate level.<br>• 106 Faculty have received awards / recognised by national / international agencies such as Unnat Bharat Abhiyan - MHRD-AICTE, NPTEL,SEEE,UCSI- Malaysia<br>• Nobel Researcher Award by International Journal for Research Under Literal Access<br>• Innovative Research and Dedicated Teaching Professional Award- Innovative Scientific Research Professional, Malaysia, , National University of Singapore (NUS), Singapore etc |

## Infrastructure

| | | | |
|---|---|---|---|
| 33 | Facilities for smart class rooms / virtual rooms / conference rooms / furnished staff cabin / New laboratories | Yes | |
| 34 | ICT - enabled facilities | Yes | • 120 class rooms with ICT facilities |
| 35 | Student - Computer ratio / available bandwidth of internet | Yes | • 3:1<br>• 100 MBPS – BSNL and 330 MBPS - Jio |
| 36 | Facilities for e-content development | Yes | • Sathyabama Media centre - Department of Visual communication<br>• 67 Videos in Sathyabama You Tube channel<br>• 11 Course modules in Swayam and LMS platform. |
| 37 | Budget allocation | Yes | |

## Student Support and Progression

| | | | |
|---|---|---|---|
| 38 | Students benefited by scholarships / career counselling/ guidance for competitive examinations | Yes | • No. of students benefitted with Scholarships – 437<br>• Career counseling – 1843 |
| 39 | Capacity development and skills enhancement initiatives | Yes | • Capacity development and skills enhancement – 181 |
| 40 | Redressal of student grievances / ragging / Sexual harassment | Yes | • Fully functional student grievance cell , students help desk , Anti ragging cell |

| | | | |
|---|---|---|---|
| 41 | Students qualifying in state/ national/ international level examinations | **Yes** | • No.of students -561; GATE-09,GRE-111,IELTS-432,TOEFEL-6,GMAT-02, and 432 other examinations |
| 42 | Placement of outgoing students/ progressed to higher education/Capability enhancement programs for Placement | **Yes** | • 1454 students have been placed<br>• 13 training programs from placement cell.<br>• Capability enhancement programs from departments – 23<br>• progressed to higher education – 561<br>• 24 Student exchange programs |
| 43 | Awards won by students for outstanding performance in sports/cultural activities | **Yes** | • 135 awards |
| 44 | Presence of Student Council and its activities / Representation of students on Academic and administration activities | **Yes** | • 21 SDC clubs<br>• NSS, NCC, YRC |
| 45 | Sports and cultural events / competitions organized | **Yes** | • No. of events - 39 |
| 46 | Registered and functional alumni association*/ alumni contribution | **Yes** | • Fully functional alumni association. Reg. No.- 33256<br>• Alumni contribution – Curriculum design and updation, Guest talks and skill development programs on recent Industrial technologies, Guidance talks on placement, higher studies, entrepreneurship and start ups. |

## Governance, Leadership and Management

| | | | |
|---|---|---|---|
| 47 | Is Statutory committee meetings held periodically * | Yes | • IQAC meetings – 4 / year<br>• Board of studies – 2 / Year<br>• Board of Management – 4 / year<br>• Academic Council – 3 / year<br>• Finance committee – 2 / year<br>• Planning and Monitoring committee – 1 / year<br>• Purchase committee – 2 / year |
| 49 | Is e-governance implemented? * | Yes | • Institute website<br>• Library management system<br>• Online fee payment portal.<br>• Online admission counseling |
| | Performance appraisal system, promotional avenues | Yes | • Measured based on faculty's self appraisal form |
| 50 | Faculty and staff effective welfare measures * | Yes | • Tuition fee concession for wards of teaching and non teaching Faculty |

| | | | |
|---|---|---|---|
| | | | • Cash award for wards of faculty with high scores in the qualifying examinations<br>• Paid sabbatical leave and maternity leave<br>• Children day care facility / 15 days Summer camp<br>• Annual master health check up / dental cleaning / medical leave / /Medical insurance / Compensation to deceased employee. |
| 51 | Financial support to attend conferences / workshops and membership fee of professional bodies | Yes | • Registration fee / travel fee for attending conference / FDP / Journal publications / membership fee are sanctioned as per the work tenure period. |
| 52 | Professional development / administrative training Programmes organized / attended | Yes | • 09 Programs organized<br>• 297 Programs attended by faculty |
| 53 | Grants received for development and maintenance of infrastructure from govt./ non-govt. bodies | Yes | |
| 54 | Internal and external financial audits * | Yes | Financial audit – Once / year |
| 56 | Revenue generated from consultancy | Yes | • Offers consultancy services to 16 agencies from the departments of CSE, IT, Mech and Automobile<br>• revenue generated from consultancy -Rs.13,72,000<br>• revenue generated from corporate training – Rs.1,84,000 |
| 59 | Facilities for / cultural activities, yoga and sports * | Yes | • Indoor Basketball Stadium<br>• Play grounds / Cricket ground<br>• Separate GYM for Boys & Girls<br>• Yoga centre in hostel |
| 60 | Hostel facility / guest room facility / Secured Campus* | Yes | • Boys Hostel – 03<br>• Girls Hostel – 03 |
| 62 | Infrastructure augmentation* | Yes | • Establishment of New / upgraded research facilities in Jeppiaar research park and IRC<br>• Purchase of new equipments |
| 63 | Innovation and Start up cell* | Yes | • 44 Awards for Innovation won by Institution / faculty /research scholar / students<br>• 2 start ups from TBI |

| | | | sponsored by DST-NSTDEB |
|---|---|---|---|
| 64 | Research Facilities | **Yes** | • 2 Research parks with 14 research centres. |
| 65 | Is library automated using ILMS / has digitization facility / subscription for e-Library resources/ | **Yes** | • ILMS available (Autolib)<br>• Knimbus provides remote access to all the e-resources in the library |

## Institutional Values and Best Practices

| | | | |
|---|---|---|---|
| 74 | Promotion of gender equity | Yes | |
| 75 | Is facilities available for alternate sources of energy/ energy and water conservation/ management of degradable and non-degradable waste /e-waste management* | Yes | |
| 76 | Green campus initiatives /audits on environment and energy/ disabled-friendly / Rainwater harvesting* | Yes | • Tree Plantation by exit graduates<br>• Rainwater harvesting facility is built.<br>• 4 Battery operated vehicles |
| 77 | Efforts/initiatives in providing an inclusive environment * | Yes | • Physical, geographical, cultural and social diversity among both student and Faculty<br>• In certain programmes, students with physical disabilities, diver social background and acid victims are admitted, |
| 79 | National and international commemorative days, events and festivals | Yes | • Faculties are awarded for research and publications on Teachers day. |
| 80 | Best practices | Yes | • 24 x 7 psycological counselling preserving the mental health of staff and students<br>• Faculty are awarded with cash prize for publications in High Impact factor Journals.<br>• Paperless administration<br>• Village adoption and School adoption schemes<br>• Technological solutions provided to villages through UBA schemes.<br>• Semester abroad / faculty exchange programmes<br>• Research efforts are directed towards sustainable development goals<br>• Adopting "Swachha Bharat Abihyan". |

(Dr. M. S. Godwin Prenu)

[Dr. J. JAYAPRABAKHAR]

## INTERNAL QUALITY ASSURANCE CELL

## ACADEMIC AND ADMINISTRATIVE AUDIT REPORT – EXTERNAL
### ACADEMIC YEAR 2018-19
### 06.04.2019

| S. No. | Parameter | Verification Yes/No | Observations / Suggestions |
|---|---|---|---|
| | **Curricular Aspects** | | |
| 1 | Is curriculum in line with local/national/regional/global needs and with PO, PSO | Yes | |
| 2 | Is the curriculum focus on employability / skill development/ entrepreneurship | Yes | • Verified curriculum components |
| 3 | Is new course introduced and syllabus periodically updated | Yes | • Verified BoS documents |
| 4 | Is CBCS / elective system implemented | Yes | • Verified curriculum |
| 5 | Whether the issues of Environment and Sustainability, Gender, Human Values and Professional Ethics addressed by courses | Yes | |
| 6 | Is value added course/ field projects /research projects/ internships introduced and students enrolled | Yes | |
| 7 | Is Stakeholder feedback taken for the design and review of syllabus and action taken | Yes | • Verified minutes of board of studies. |
| | **Teaching, Learning and Evaluation** | | |
| 8 | Is measures taken for supporting advanced learners and slow learners? | Yes | |
| 9 | Student – Full time teacher ratio | Satisfied | 1:20 |
| 10 | Is student centric method used for enhancing learning experiences? | Yes | |
| 11 | Is ICT enabled Teaching / Examination / evaluation practiced? | Yes | |
| 12 | Number of full-time teachers with Ph.D | | • 260 |
| 13 | Number of teachers who received awards and | Yes | • 115 |

| | | | |
|---|---|---|---|
| | recognitions | | |
| 14 | Is grievances related to teaching - learning / examination / evaluation / facilities addressed? | Yes | |
| 15 | Availability /Dissemination /Attainment of POs, PSOs, Cos | Yes | • Available on notice boards, and website<br>• The evaluation of Pos, PSOs and COs attainment are verified |
| 18 | Average Pass Percentage | Yes | • 85.76 % |
| 19 | Is Student satisfaction survey (SSS) taken on teaching learning process ? | Yes | • Verified SSS link http://cloudportal.sathyabama.ac.in/iqac_feedback/login.php |
| **Research and Development** | | | |
| 20 | Is Seed Money received for research? | Yes | |
| 21 | Is national/ international fellowship received/ financial support for advanced studies/ research/ innovation and incentives provided by the institution? | Yes | Fellowships received by researchers:<br><br>• From Ministry of Taiwan, DST-SERB OVDF, TEEP-ASIA, National Research Federation of Korea, National Institute of Health, Seoul and Kuwait World Obesity Federation, Swedish Research Council, Turkey Higher Education Council, European Union. |
| 22 | Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled | Yes | • 20 JRF , 2 SRF, 2 PDF |
| 23 | Is Extramural funding for Research /by Govt/ / Non-govt. agencies/Fund for organizing seminars and conferences received? | Yes | • 56 projects - 6.8 crores from MHRD, MoES, DST, AICTE, DBT, ISRO, DRDO,DBT, ICMR,UBA,TBI, MoES, ICAR-NICRA/Govt. of India, Hyderabad, HRDG CSIR, ICMR, |
| 27 | Eco system for innovations including Incubation centre and other initiatives | Yes | • 3 TBI incubates sponsored by DST |
| 28 | Is workshops/seminars conducted on Research methodology, IPR, entrepreneurship, skill development | Yes | • 149 programs organized |
| 29 | Patents published/awarded | | • Granted – 32<br>• Published –05<br>• Filed – 22 |
| 30 | Research papers / books and chapters / e-content / Citation Index/ h-index | | • 218 Book chapters.<br>• 02 books |

| | | | |
|---|---|---|---|
| | | | • 881 publications<br>• Highest impact factor is 6.0176 |
| 31 | Extension activities in the neighbourhood community / awards received / programs conducted/ students participated | Yes | • 56 Outreach Programmes organized and awarded from Indian red cross society, NCC |
| 32 | Collaborative activities/functional MoUs | Yes | • 23 National and 24 International Collaborative MoU's<br>• student and faculty exchange programs - 24<br>• research collaborations - 24 |
| 33 | Awards and Recognitions | Yes | Faculty awards - 106 |
| **Infrastructure** | | | |
| 33 | Facilities for smart class rooms / virtual rooms / conference rooms / furnished staff cabin / New laboratories | Yes | |
| 34 | ICT - enabled facilities | Yes | • class rooms / smart class/ conference halls / auditoriums with ICT facilities |
| 35 | Student - Computer ratio / available bandwidth of internet | Yes | • 3:1<br>• 100 MBPS – BSNL and 330 MBPS - Jio |
| 36 | Facilities for e-content development | Yes | • Verified Sathyabama You Tube channel and course modules |
| 37 | Budget allocation | Yes | |
| **Student Support and Progression** | | | |
| 38 | Students benefited by scholarships / career counselling/ guidance for competitive examinations | Yes | • Dr. JeppiaarRemibai Merit Scholarship – 385 students benefitted<br>• Career counseling – 1843 |
| 39 | Capacity development and skills enhancement initiatives | Yes | • 181 programmes |
| 40 | Redressal of student grievances / ragging / Sexual harassment | Yes | |
| 41 | Students qualifying in state/ national/ international level examinations | Yes | • Verified Students advisory bureau records |
| 42 | Placement of outgoing students/ progressed to higher education/Capability enhancement programs for Placement | Yes | • No.of placed students - 1454<br>• No.of students progressed to higher education – 561<br>• training / Capability enhancement programs – 36 |
| 43 | Awards won by students for outstanding performance in sports/cultural activities | Yes | • 135 awards |
| 44 | Presence of Student Council and its activities / Representation of students on Academic and | Yes | • Student development clubs, NSS, NCC, YRC |

| | administration activities | | |
|---|---|---|---|
| 45 | Sports and cultural events / competitions organized | **Yes** | • No. of events - 39 |
| 46 | Registered and functional alumni association*/ alumni contribution | **Yes** | • Reg. No of alumni association. 33256 |

## Governance, Leadership and Management

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| 49 | Is e-governance implemented? * | Yes | • Verified Institute website , Library management system |
| | Performance appraisal system, promotional avenues | Yes | • Faculty's self appraisal |
| 50 | Faculty and staff effective welfare measures * | Yes | |
| 51 | Financial support to attend conferences / workshops and membership fee of professional bodies | Yes | • Registration fee / travel allowance / FDP / Journal publications / membership fee are sanctioned as per the work tenure period. |
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## Institutional Values and Best Practices

| 74 | Promotion of gender equity | Yes | |
|---|---|---|---|
| 75 | Is facilities available for alternate sources of energy/ energy and water conservation/ management of degradable and non-degradable waste /e-waste management* | Yes | |
| 76 | Green campus initiatives /audits on environment and energy/ disabled-friendly / Rainwater harvesting* | Yes | • Tree Plantation by exit graduates <br> • Rainwater harvesting facility is built. <br> • 4 Battery operated vehicles |
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| 80 | Best practices | Yes | • 24 x 7 psycological counselling preserving the mental health of staff and students <br> • Faculty are awarded with cash prize for publications in High Impact factor Journals. <br> • Paperless administration <br> • Village adoption and School adoption schemes <br> • Technological solutions provided to villages through |

| | | | UBA schemes. <ul><li>Semester abroad / faculty exchange programmes</li><li>Research efforts are directed towards sustainable development goals</li><li>Adopting "Swachha Bharat Abihyan".</li></ul> |
|---|---|---|---|

**Suggestions :**

- **To revise department's vision and mission in line with Institute's vision and mission.**
- **To improve collaborative publications**
- **To increase internet bandwidth speed**
- **To increase full time research scholars**
- **To introduce a course on publication ethics**
- **To encourge students on product development with the innovative ideas**
- **To increase alternate sources of energy**
- **To introduce Industry 4.0 course in the curriculum**

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