

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

ANNUAL REPORT 2019 - 2020



MAY 31, 2020

SATHYABAMA IEEE STUDENT BRANCH
Branch Code - 36301



Preface

This annual report is the outcome of the IEEE Student Branch, Sathyabama Institute of Science and Technology in the academic year 2019-2020. The objective of the activities conducted by the student branch is to familiarize the students with the implementation of knowledge. The report is prepared based on the information gained during every programmes.

Branch Counsellor

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About IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community to innovate for a better tomorrow through its more than 423,000 members in over 160 countries, and its highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing, and technology information around the globe.

About SATHYABAMA IEEE SB

The inception of the IEEE Student Branch (IEEE SB) of Sathyabama Institute of Science and Technology (Deemed to be University) was in the month of September 1991. Throughout the years, it is an active and vibrant branch. Every year the branch is added up with active student members who play a major role in building up the branch and keeping it active. The branch was started with 21 members and at the end of 1999 it had 375 members. As an add-on, the branch is awarded as the 5th largest branch in the world, 2nd largest in the Asia Pacific region and again received largest membership in the year 2012 and 2013. In addition, the branch has received certificate of appreciation for organizing activities towards advancement of IEEE and Engineering professions. IEEE student branch consistently organizes technical events like workshops, hands-on training and special lectures in cutting-edge technologies. Students expand their knowledge by attending these events of advanced technologies. Also, the student branch hosts a National Level Technical Symposium "SILICON" every year; as a platform for students to showcase their leadership and technical skills.

Vision

- To enable, empower and energize the student members to enhance their technological interests and motivate them to excel in technical skills
- To provide a platform for student members to improvise them in various managerial and technical qualities

Mission

- To create an awareness among students about benefits of IEEE
- To organize technical awareness programmes
- To organize skill development programmes
- To form technical groups and motivate the student members to develop projects useful for the community
- To organize regular events like workshops, technical symposiums and contests
- To encourage student members to achieve more awards sponsored by IEEE

IEEE SB Executive Committee 2019 - 2020

Selection Procedure and Guidelines

The circular for IEEE SB Executive Committee Selection Interview for the academic year 2019-2020 was sent on 3.6.2019 to all the third-year students of School of Computing (CSE and IT) and School of Electrical and Electronics Engineering (ECE, EEE and E&I) through Deans of schools/ Heads of the Departments/ Class Counsellors. The interested students were asked to register with their basic information and biodata on or before 20.6.2019. 53 students were shortlisted based on their skills and interests from the 127 registered candidates were called for the direct interview on 24.6.2019 and 25.6.2019. Direct interview was conducted by IEEE SB counselor and staff coordinators. The evaluation report was made based on students' elegance, perspective, communication, interactive and leadership skills. The following executive committee with 15 students was selected from the direct interview based on the evaluation report for the academic year 2019-2020. This executive committee will be active till the end of this academic year.

Executive Committee

Chairman : Ms.SANGHAMITRA CHOUDHRI (III Year ECE)

Vice-Chairman : Ms.D MEGHANA (III Year ECE)

Secretary : Mr.ASHWIN (III Year CSE)

Treasurer : Mr.S SARAVANAN (III Year IT)

Webmaster : Mr.MOHAMMAD HABIB MEMON (III Year IT)

Registration : Ms.M S NEETHU PRIYA (III Year EEE)

Member Welfare : Mr.MOHAN HARI KRISHNA (III Year CSE)

Program Committee : Mr.P PRANEETH REDDY (III Year ECE)

: Ms.S. MADHUMITHA (III Year ECE)

: Mr.AKHIL (III Year IT)

Publicity Committee : Mr.POLISETTY VIJAY (III Year ECE)

: Ms.D.MINISHA (III Year ECE)

: Mr.VENKATA SAI (III Year IT)

Design Committee : Ms.JYOTHIRMAI (III Year CSE)

Section Coordinator : Mr.KSHITIZE TYAGI (III Year EEE)

IEEE SB Activities

The new executive committee was introduced on 27.6.2019 and their roles and responsibilities were described. IEEE SB regularly meets fortnightly with executive committee, staff coordinators and branch counselor. Meetings were conducted with the agenda of conducting IEEE awareness programmes to first year to third year students of School of Computing and School of Electrical and Electronics Engineering in the month of June and July to enhance the membership development. The next agenda was to organize the activities to develop the technical skills of students. The activities like workshops and technical talks by experts were conducted. Also, the annual national level technical symposium SILICON 2K20 was planned on March 2020, but due to pandemic situation, the event was postponed to the next academic year. The next agenda was to bring out the leadership skills of executive committee. The consolidated list and details of the activities were given below.

S. No.	Nature of Programme	Topic of the Event	Date	Resource Person / Invited Guest
1	Induction Program	IEEE - Induction Programme	27.6.2019	New Executive Committee Members, Staff coordinators and Branch counselor
3	Workshop	Microstrip Component Design using ANSYS HFSS and Testing with VNA	11.7.2019 & 12.7.2019	Mr Megala Harinath, Project Analyst, Cognizant Technology Solutions, Chennai
4	Workshop	Deep Learning	23.8.2019 & 24.8.2019	Mr.Ravi Kumar, Mr.R.Karthik and Mr.D.Manish, Triflorum Institute of Advance Engineering Private Ltd., Chennai

5	Awareness Program	IEEE Student Professional Awareness Programme	2.8.2019 & 9.8.2019	Ms.Chekuri Vikasha, Chairman IEEE SB (2018-19), Dr.M.S.Godwin Premi, Branch Counselor, IEEE SB
6	Awareness Program	IEEE – Advancing Technology for Humanity	23.1 2020	Mr.V.Vedanarayanan, Staff Coordinator, IEEE SB
7	Guest Lecture	Industry Applications on Big Data	22.2.2020	Mr.Pradeep Paneerselvam, Big Data Lead Developer, Cognizant Technology Solutions
8	Workshop	Image Processing using Matlab	11.5.2020 to 14.5.2020	Mr.Ramesh Kumar, CEO Averzs Technologies. Chennai

Workshop on Microstrip Component Design using ANSYS HFSS and Testing with VNA

Nature of the event	Workshop
Topic	Microstrip Component Design using ANSYS HFSS and Testing with VNA
Date(s) & Time	11.07.2020 & 12.07.2020
Resource Person	Mr.Megala Harinath, Project Analyst, CTS
No. of Participants	35
Nature of Participants	Students
Venue	VLSI Lab
Student Coordinators	Ms.Sanghamitra, Ms.Meghana, Mr.Polisetty Vijay

IEEE student branch organised a two-day workshop on Microstrip Component Design Using ANSYS HFSS and Testing with VNA. The technical sessions are handled by Mr.Megala Harinath- Project Analyst, CTS, Dr.M.Sugadev, Dr.G.Jegan and Ms.Rexline Sheeba, Dept. of ECE. The workshop was arranged for final year ECE students to provide an insight on the design Aspects of Microstrip components and hands on training with ANSYS HFSS electromagnetic simulation tool. The theoretical and practical skills gained through the workshop would help the students to carry out their projects in RF and Microwave components Design, Analysis and Testing.



This workshop is organized to give an opportunity for beginners and RF enthusiasts to get an exposure in the field of RF and Microwave component design. The students are encouraged and motivated by the expert lectures on Microwave circuit

design methodologies; practical hands-on training in RF& Microwave simulation software tools and demonstration of testing practices using Vector Network Analyzer.

Workshop on Deep Learning

Nature of the event	Workshop
Topic	Deep Learning
Date(s) & Time	23.07.2020 & 24.07.2020
Resource Person	Mr.Ravi Kumar, Mr.R.Karthik and Mr.D.Manish
No. of Participants	20
Nature of Participants	Students
Venue	Simulation Lab
Student Coordinators	Mr.Saravanan, Mr.Ashwin, Ms.Jyotirmai

The IEEE Student Branch in association with Triflorum Institute of Advance Engineering Private Ltd., Chennai has conducted a two-day workshop on "Deep Learning" on 23rd and 24th July 2019. Mr.Ravi Kumar, Mr.R.Karthik and



Mr.D.Manish from Triflorum started with a brief lecture on deep learning basics and algorithms and trained the students with hands-on on various Deep Learning techniques using python.



Guest Talk on Industry Applications on Big Data

Nature of the event	Technical Talk
Topic	Industry applications on Big Data
Date(s) & Time	22.2.2020
Resource Person	Mr.Ravi Kumar, Mr.R.Karthik and Mr.D.Manish
No. of Participants	64
Nature of Participants	Students
Venue	Smart Class Room
Student Coordinators	Mr. Habib, Mr.Saravanan, Mr.Akhil, Mr.Venkata Sai

The IEEE student chapter organized a guest talk on "Industrial Applications of Big Data Analytics " by Mr. Pradeep Panneerselvam, Big Data Lead Developer, Cognizant Technology Solutions on 22/02/2020. The speaker presented more specific insights on



Big Data with various use cases and industrial applications. The students were able to understand the key terms on various data storage approaches and be familiar on the requirements to become a Big Data Developer.

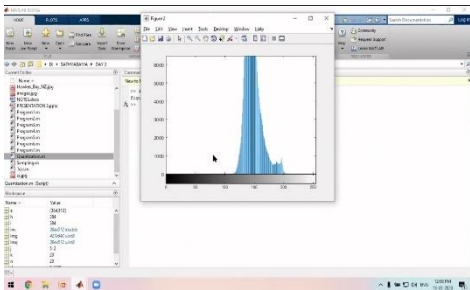
IEEE Awareness Programme

Nature of the event	Awareness Programme		
Topic	IEEE Student Professional Awareness Programme		IEEE – Advancing Technology for Humanity
Date(s) & Time	2.8.2019	9.8.2019	23.1.2019
Resource Person	Ms.Chekuri Vikasha		Mr.V.Vedanarayanan
No. of Participants	107	112	142
Nature of Participants	Students		
Venue	Student Activity Centre		Presentation Hall
Student Coordinators	All Executive Committee Members		

IEEE Student Branch has conducted an awareness Programme for the students of School of Computing and School of Electrical and Electronics on 2.8.2019 and 9.8.2019 respectively. The benefits of IEEE were presented by former student branch chairman, Ms. Chekuri Vikasha. Student branch activities were presented by the branch counselor. Also, this programme was continued by membership development programmes for a week by executive committee members to clarify the doubts. In order to give widespread awareness on IEEE to both school of Computing and School of Electrical and Electronics engineering and to enhance the membership, again the awareness programme was conducted on 23.1.2020 by Mr.V.Vedanarayanan, staff coordinator, IEEE SB. He provided the insights about IEEE , how to join IEEE, IEEE TV, IEEE Collaboratec and IEEE Spectrum.

Workshop on Image Processing using Matlab

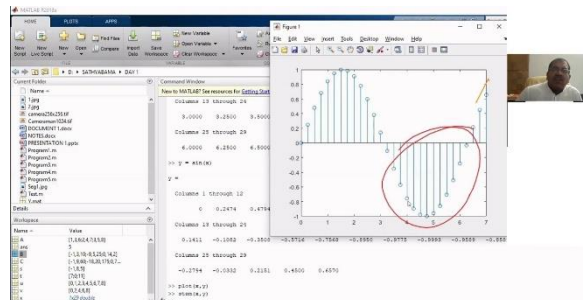
Nature of the event	Workshop
Topic	Image Processing using Matlab
Date(s) & Time	11.5.2020 to 14.5.2020
Resource Person	Mr.Ravi Kumar, Mr.R.Karthik and Mr.D.Manish
No. of Participants	47
Nature of Participants	Students and Staff
Venue	Smart Class Room
Student Coordinators	Ms.S.Madhumitha, Ms.D.Minisha,



IEEE Student branch has organized a four-day Workshop on Image Processing Using MATLAB in association with Averz Technologies (An incubated company of IIT Delhi) from 11.05.2020 to 14.05.2020.

Ramesh Kumar. S, CEO of Averz Technologies Chennai handled the sessions. All sessions were conducted through Zoom Online Tool. A total of 47 registered participants from all over India joined the sessions. Day one Presentation covered on the following topics. Need for Digital Image Processing, MATLAB Toolbox, MATLAB Environment, Arrays and Matrix operations.

Day two session covered on different phases of image processing such as Image Acquisition, Image Restoration, Image Enhancement, Image Segmentation, Image Feature Extraction, Image Feature Selection,



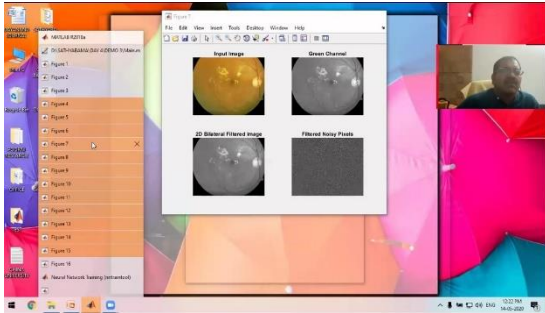
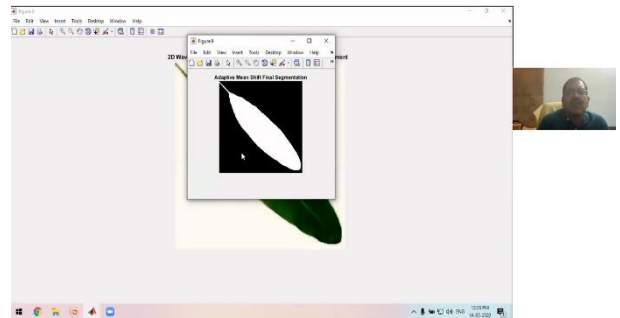


Image Classification, Image Compression, Image Transmission, Video Processing. Detailed hands on training was provided on Low pass filtering, high pass filtering, Contrast and brightness improvement, different Image

Segmentation masks, Clustering and thresholding technique sin day three. Day four event included demonstrations on Medical image analysis using MATLAB, Satellite image analysis using MATLAB. A fifteen minutes window for clearing the Participants doubts was provided on all days. At end of each session an assignment on the topics discussed was given to the participants along with a feedback form. Assignments were dually completed by all participants. E-Certificates were provided to all participants.



Appreciation to 2018-19 IEEE SB Executive Committee

The IEEE student branch has appreciated the performance of 2018-19 IEEE SB Executive Committee on 29.2.2020. The former members were respected for their consistent involvement and effective work delivered during the last academic year. Certificate of appreciation was given to all members by Dr.G.Sundari, Dean (Student Affairs) and cherished the moments they involved .



Contact Us

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