DEPARTMENT OF **ELECTRONICS AND COMMUNICATION ENGINEERING**

2022-2023





SAI RAM ENGINEERING COLLEGE Anno University & Annoved by AICTE, New Delhi

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi Accredited by NBA and NAAC "A+" | An ISO 9001:2015 Certified and MHRD NIRF ranked institution

Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairam.edu.in





















OVISION

To emerge as a "centre of excellence" in the field of Electronics and Communication Engineering and to mould our students to become technically and ethically strong to meet the global challenges. The Students in turn contribute to the advancement and welfare of the society.



MISSION

Department of Electronics and Communication Engineering, SRI SAIRAM ENGINEERING COLLEGE is committed to

- M1 Achieve, sustain and foster excellence in the field of Electronics and Communication Engineering.
- **M2** Adopt proper pedagogical methods to maximize the knowledge transfer.
- M3 Enhance the understanding of theoretical concepts through professional society activities
- M4 Improve the infrastructure and provide conducive environment of learning and research following ethical and moral values

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- **PEO1** Acquire strong foundation in Engineering, Science and Technology for a successful career in Electronics and Communication Engineering.
- **PEO2** Apply their knowledge and skills acquired to solve the issues in real world Electronics and Communication sectors and to develop feasible and viable systems.
- **PEO3** Be receptive to new technologies and attain professional competence through professional society activities.
- **PEO4** Participate in lifelong learning, higher education efforts to emerge as expert researchers and technologists.
- **PEO5** Practice the profession with ethics, integrity, leadership and social responsibilities.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO 1** Design, implement and test Electronics and Communication systems using analytical knowledge and applying modern hardware and software tools
- **PSO2** Develop their skills to solve problems and assess social, environmental issues with ethics and manage different projects in multidisciplinary areas.

PROGRAMME OUTCOMES(POs)

PROGRAM OUTCOME REPRESENTS THE KNOWLEDGE, SKILLS AND ATTITUDES THAT THE STUDENTS WOULD BE EXPECTED TO HAVE AT THE END OF THE 4 YEAR ENGINEERING DEGREE PROGRAM

12

Life-long learning

Recognize the need for, and have the preparation, ability to engage in independent and life-long learning in the context of technological change.

01

Engineering knowledge

Apply the basic principle and knowledge of mathematics, science and engineering principles to solve technical problems.

02

Problem Analysis

Identify and analyze complex engineering problems reaching logical conclusions using the basic principles of mathematics, science and engineering.

11

Project management

Demonstrate knowledge and apply the principles of engineering & management in their own / team projects in multidisciplinary environments.



03

Development of solutions

Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs.

10

Communicate effectively

Communicate effectively amongst the engineering community, being able to comprehend & write effective reports, make presentations & give/receive clear instructions.

04

Investigate complex problems

Perform investigations, use research based knowledge and conduct experiments, analyze and interpret the results to provide valid conclusions.

O9 Individual &

Teamwork

Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary professional settings.

08

Apply ethical principles

Apply ethical principles and commit to professional ethics and responsibilities based on the norms of professional engineering pratices.



POGRAM OUTCOME

Environment & Sustainability

Demonstrate professional skills, knowledge and contextual reasoning to assess / environmental / societal issues for sustainable development.



The Engineer and Society

Apply reasoning based on contextual knowledge to assess societal, legal and cultural issues with competency in professional engineering practices.

05

Modern tool usage

Create, select and apply the latest techniques, resources and modern engineering / IT tools to develop appropriate solutions with an understanding of the limitations.



Inauguration of Department Activities and a Technical seminar on "Antennas for Future Technologies"

The Association of ECE, IETE Student branch, IEEE, & IEI Organized the Inauguration of Department Activities and a Technical seminar on "Antennas for Future Technologies" 25.08.2022 by Mr. Balakrishnan I Scientist CEM, Ministry of Electronics and IT. Government of India, Chennai.

Online workshop on "Intellectual Property rights (IPR) & Patents and Design Filing

The Association of ECE, IETE Student branch, IEEE, & IEI conducted online workshop on "Intellectual Property rights (IPR) & Patents and Design Filing" by Mr. Himanshu Chandrakar, Examiner of Patents & Designs, RGNIPM, Nagpur on 20.10.2022





Workshop on Sensor Network Platforms and Tools

The Association of ECE, IETE Student branch, IEEE, & IEI **Organized Workshop on Sensor Network Platforms and Tools** was conducted on 17.11.2022. The workshop is conducted for Final year students on the COOJA & TOSSIM simulator by the faculty members from Wireless communication special interest team.

Workshop on "Basic Electronics"

The Association of ECE, IETE Student branch, IEEE, & IEI **Organized workshop on "Basic Electronics"** for First year students from ECE and E&I Department from 07.11.2022 to 11.11.2022. From this Bootcamp students gained more knowledge in basic electronics during the practical sessions.





Orientation on Smart India Hackathon 2022

The Association of ECE, IETE Student branch, IEEE, IEI and Skill Enhancement club **organized an Orientation on "Smart India Hackathon"** on 28.09.2022. Winners team of SIH 2022 shared their experience with III ECE Students.

WORLD STUDENTS' DAY to honor our former Indian President Dr. A.P.J Abdul Kalam's birthday -TECHNOLIX 2022

The Association of ECE, IETE Student branch, IEEE, & IEI Celebrated World Students' Day on 06.10.2022 to honor our former Indian President Dr. A.P.J Abdul Kalam. Technical MCQs, Ideathon contest, circuit debugging and quiz contest conducted winners were distributed with prizes and certificates.





Seminar on "PATH TOWARDS DREAM CAREER"

The Department of Electronics and Communication Engineering in Association with IETE Students forum, IEEE Students Chapter, IEI & ISTE organized Seminar on "PATH TOWARDS DREAM CAREER" on 9.11.2022 by K.Hariharan, 4th year ECE, Intern@Cisco. The session covered the following topics Current industrial trends, the market, and its need for engineers, placements and how to ace them, and various opportunities availablein the technological world. Team of SIH 2022 shared their experience with III ECE Students.

Seminar on "Intellectual Property rights"

The Department of Electronics and Communication Engineering in Association with IETE Students forum, IEEE Students Chapter, IEI & ISTE organized Seminar on "Intellectual Property rights" on 22.11.2022 by Dr. Rijo Jackson Tom, Data Scientist, Chennai.





Alumni Talk "Career growth through social media"

The Association of ECE, IETE Student branch, IEEE, & IEI **Organized Alumni talk on "Career growth through social media"** 29.09.2022 by **Ms. Suganthy Sathya** (2014-2018 batch), Senior Software Engineer, Accenture.

Alumni Talk on "Find your passion, Build your Career"

The Association of ECE, IETE Student branch, IEEE, & IEI Organized Alumni Talk on "Find your passion, Build your Career" 17.11.2022 by Mr. Mukunthan Venkatesan (2007-2011 Batch), Program Manager, Accenture, Chennai





Alumni Talk on Personal Values

The Association of ECE, IETE Student branch, IEEE, & IEI **Organized Alumni talk** on 05.11.2022 by **Ms. Anuranjani Nandakumar Sarathy** GeoTech Private Ltd. Freelance Management Consultant.

Signing of MoU with Pantech E Learning

Department of Electronics and Communication Engineering Signed MoU on 16.12.2022 with PanTech E-Learning Pvt. Ltd.





MoU Activities- SEMINAR ORGANIZED

The Association of ECE, IETE Student branch, IEEE, & IEI Organized Technical Seminar on "Recent Trends in Embedded Technologies with MoU signed company, Retech Solutions Pvt Ltd., Chennai on 02.09.2022

PGPA Awareness programme

The Association of ECE, IETE Student branch, IEEE, & IEI Organized PGPA Awareness programme on 19.10.2022 for II year ECE Students. Dr J Raja HOD- ECE gave brief PGPA Awareness talk on various components and grading, followed by Dr S.Sumathi Associate Professor-ECE, Dr.K.Sumathi Associate Professor & Talent Enabler ECE, Mr. Vinoth Kumar Assistant Professor Internship coordinator –ECE & Mr. K.Devibalan Assistant Professor & Placement Facilitator-ECE.





Value Addition and Skill Enhancement courses

The Association of ECE, IETE Student branch, IEEE, & IEI **Organized 5 days Value added Training Programme with hands on training on topic "IoT and Embedded Systems"** from 12.12.2022 & 16.12.2022 conducted by Pantech E Learning Pvt., Ltd, Chennai.

IEEE Sponsored One Week FDP On "Recent Trends in 5G Communication Networks"

IEEE Sponsored five days online faculty development program on Recent Trends in 5G Communication Networks organized by Department of Electronics and Communication Engineering on 26.12.2022 -30.12.2022.





IEEE COMSOC workshop on "Understanding of Routing & Switching concepts in Data Communication and Networking using Cisco Packet Tracer"

The Association of ECE, IETE Student branch, IEEE, & IEI Organized Two days Hands-on workshop on "Understanding of Routing and Switching concepts in Data Communication and Networking using Cisco Packet Tracer" was conducted on 01.12.22 & 02.12.22.

Webinar on "Technology readiness level and commercialization of project"

The association of ECE, IETE Student branch, IEEE & IEI Organized a webinar on "Technology readiness level and commercialization of project" on 15th February,2023. Speaker Mr. Harish Kumar KG, Cofounder Kissflow, elaborated to create awareness among the budding engineers on how to commercialize a product, implement their entrepreneurial skills practically and start their own companies. There were around 50 students from ECE department who actively participated in this webinar.





Seminar on "Skill Rack Awareness Program for First year students"

The association of ECE, IETE Student branch, IEEE & IEI **Organized a seminar on "Skill Rack Awareness Program"** for First year students on 27th February,2023.

Value Added Program and training on topic "Embedded Protocol Developer"

The association of ECE, IETE Student branch, IEEE & IEI Organized the Value-Added training Course with hands-on session has been conducted for the interested third year students of ECE Department. This course is conducted for two batches and each batch attended for 5 days from 17.04.2023 to 21.04.2023on the topic "Embedded Protocol Developer". Total of 20 students attended the course and benefited.





Seminar on "The Recent trends and Job Opportunities in Embedded System"

The association of ECE, IETE Student branch, IEEE & IEI Organized a seminar for the Third year ECE students on "The Recent trends and Job Opportunities in Embedded Systems" on 17.02.2023. Dr. Ashwin Seshadri Krishnan, Head of Embedded Practice, Motherson Technology Service Ltd presented the seminar for the budding engineers to open up their minds in making their career options.

Value added training course on "SMART PHONE SERVICING AND TROUBLESHOOTING"

The association of ECE, IETE Student branch, IEEE & IEI Organized two days Value Added Training program on Smart Phone servicing & Troubleshooting conducted on 3.05.2023 & 4.05.2023. 71 students participated and gained knowledge in chip level mobile hardware and software techniques, problem identification and correction.





IEEE SPS Seasonal School on "Optical Signal Processing for Communication, Computing & Sensing"

IEEE Sponsored five days faculty development program on Optical Signal Processing for Communication, Computing & Sensing organized by Department of Electronics and Communication Engineering from 6.3.2023 to 10.3.2023.

Students Achievements



INDIA BOOK OF RECORDS 2022

SRIHARAN of II year set a record in India Book of Records 2022 for his Asana Performance in Yoga.

STUDENTS ACHIEVEMENTS

Singapore AUV Challenge



The SAUVC competition challenges teams to construct an AUV capable of performing specific tasks.

These activities are simulations of tasks that operational AUVs must be able to do. The tournament took place in a swimming pool, and each team's AUV must complete four challenges. The speed and precision with which the AUV completes tasks will be utilised to determine the competition winner.

SREEVARSHAN S - III ECE C, GNANASUDHARSAN A - III ECE D, PRASANTH G - IV ECE B participated in SAUVC 2022 at Singapore Polytechnic, Singapore in the month of September 2022. They represented the team VARUNA and bagged 3rd Prize in the world and 1st in India at the Qualifiers and in the Finale. The team bagged the 6th position out of all the teams which came from all over the world.

STUDENTS ACHIEVEMENTS

SIH WINNERS 2022



JARVIS VISION

NIRMAL RAJA K L KRITHIGA M VARUNAPRIYAN K

SENTER

SHARATH KUMAR R G JAYAPREETHA N RITHIKA V SWETHA D ADITHYA SUBRAMANI S

LECCY

JANAI PRIYADHARSHINI S JAYAVARSHINI G GOWRISHANKAR K

MARIX001

MORRVEN R





Accredited by NBA and NAAC "A+"

ISO 9001:2015 Certified and MHRD NIRF ranked institution

Campus: Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairam.edu.in

Administrative Office: "Sai Bhavan", 31B, Madley Road, T.Nagar, Chennai - 17. Ph: 044-4226 7777.

www.sairamgroup.in





