Sairam
NEWSLETTER EEE

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VOLUME 26 | ISSUE NO 2

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VISION

To inculcate discipline, good quality education, research and training, wide knowledge to meet the global standards, opportunities to gain practical knowledge in the laboratories, awareness in emerging technologies in students to render their services for the betterment of the society with ethics.

MISSION

To provide a platform in acquiring knowledge in the field of Electrical and Electronics Engineering with highest quality in technical education and services to the society. To fulfill the needs:

TEACHING AND MENTORING - To provide best teaching and mentoring through ethical and moral values.

PROFESSIONAL GROWTH- To provide quality education for Electrical and Electronics Engineers that prepares them for exemplary life-long career and professional growth.

CUTTING-EDGE TECHNOLOGIES- To develop cutting edge technologies through research that meets the needs of industry, government and the scientific community.

To guide our graduates to pursue their formal education further, including PG and PhD programmes.

SOLUTION PROVIDERS- To excel in student learning activities, to produce them as problem solvers as a team or individual by active interaction and effective communication with peers and stakeholders.

SAI RAM ENGINEERING COLLEGE

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

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PROGRAM EDUCATIONAL OBJECTIVES

PEO I: Graduate will apply the principles of basic science, mathematics and engineering fundamentals necessary to formulate, solve and analyze engineering problems.

PEO II: Graduate will expertise in the field of Electrical and Electronics Engineering.

PEO III: Graduate will acquire the knowledge for pursuing advanced degrees in Engineering, Science, Management, Research and Development.

PEO IV: Graduate will achieve professionalism, leadership qualities, self and continuous learning.

PEO V: Graduate will fulfill the needs of the society by working as Engineers, Entrepreneurs in core as well as inter-disciplinary areas in an ethical and responsible manner.

PROGRAM SPECIFIC OUTCOMES

PSO1. Students will gain proficiency in analyzing and resolving complex issues related to Power and Energy, Power Electronics and Embedded Systems.

PSO2. Students will gain the knowledge to design and control electrical machines and drives for applications in transportation and industrial sectors.

From the HoD's desk...

Dr. R. Azhagumurugan M.E., Ph. D
Head of the Department
Electrical and Electronics Engineering

We are delighted to present the key highlights of the Department of Electrical and Electronics Engineering from **January to May 2024**. During this period, the department successfully organized various events, providing students with opportunities to showcase their technical skills. Notable events included the **IEEE Research and Innovation Event** and the **VLSI Conclave**, which offered valuable insights into emerging technologies. Additionally, a Fit India Awareness Session and a **Seminar on the Modeling and Control of DC-DC Power Converters Using Levenberg-Marquardt Based Machine Learning Algorithms** were conducted to enhance students' knowledge in both technical and applied domains.

The **SAIRAM ENSAV Club** also hosted **ENSAV Club Day**, emphasizing the global shift towards renewable energy and nurturing leadership and analytical skills among students.

We take immense pride in the accomplishments of our faculty and students. Faculty members actively participated in industrial internships, strengthening their expertise and bringing real-world industry insights into the learning environment. Their commitment to continuous learning ensures a more enriching academic experience for students.

Our students demonstrated exceptional talent and innovation, notably emerging as **winners of Solvenathon 3.0** and securing top positions in various technical competitions. Their achievements reflect their dedication, creativity, and problem-solving skills. As we move forward, we encourage both students and faculty to remain committed to innovation, research, and excellence in Electrical and Electronics Engineering.

Dr. R. Azhagumurugan
Head of the Department
hod.eee@sairam.edu.in

"The future belongs to those who believe in the beauty of their dreams."

GUEST LECTURE /WORKSHOP

Technex Standards 2.0 4/17/2024

Technex Standards 2.0 on 4/17/2024 aimed to familiarize participants with the standards and practices related to electrical and electronic engineering, emphasizing the importance of standardization in technological advancements.

Guest Lecture on FIT INDIA MOVEMENT on 9/5/2024 is a initiative aligns with the nationwide campaign launched by Prime Minister Narendra Modi on August 29, 2019, aimed at encouraging citizens to prioritize fitness and incorporate physical activities into their daily routines
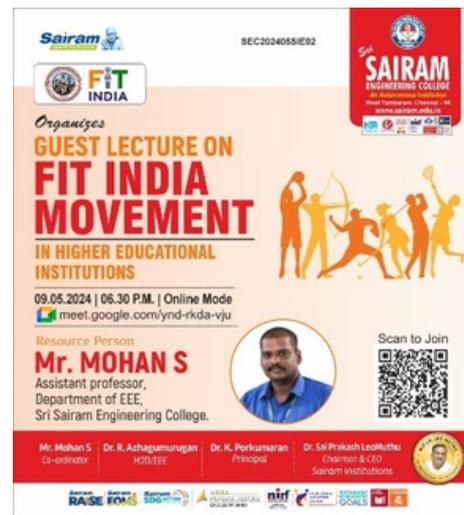

ENERGYTHON 2024, a project presentation event organized by the IEEE Power & Energy Society (PES) Student Branch Chapter. The event aimed to foster innovation and sustainability in the energy sector, attracting over 175.

GUEST LECTURE /WORKSHOP

A Tech talk on Generative AI in Electric Mobility on 4/22/2024

Power and Energy Brainwave on 4/22/2024 enhanced participants understanding of electric vehicles and renewable energy technologies and provided knowledge on electric vehicle fundamentals and advancements.

Electrifying the Road: Basics & Innovations in EV Tech

"Electrifying the Road: Basics & Innovations in EV Tech", held as part of IEEE PES Day at Sri Sairam Engineering College, Chennai. This workshop provided participants with an insightful overview of the fundamentals and the latest advancements in electric vehicle (EV) technology.

GUEST LECTURE /WORKSHOP

AI-Tronics on 22nd April 2024

The IEEE PES Student Branch Chapter of Sri Sairam Engineering College successfully conducted a Tech Talk on Generative AI in Electric Mobility (AI-Tronics) as part of IEEE PES Day 2024. Held on April 22, 2024, from 11:00 AM to 11:45 AM, the session provided insights into the transformative role of Generative AI in the electric mobility sector

Get Wired! Light, Sounds, Circuits, and Games on April 13, 2024

The Department of Electrical and Electronics Engineering, in association with the IEEE WIE Affinity Group, hosted an engaging event, "Get Wired! Light, Sounds, Circuits, and Games," as part of IEEE Education Week. Held on April 13, 2024, at Good Life Centre, the event featured science projects, circuit-building activities, interactive games, and illuminating workshops. Participants explored technology and innovation through hands-on experiences, making learning both exciting and interactive.
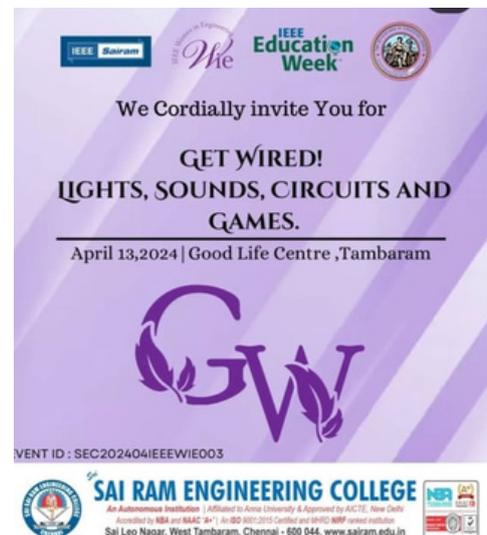
GUEST LECTURE /WORKSHOP

Modeling and Control of DC-DC Power Converter Using Levenberg Marquardt Based Machine Learning Algorithms on April 17, 2024

The Department of Electrical and Electronics Engineering, Sri Sairam Engineering College, in association with IEEE PELS SEC SBC & IEEE SSCS SEC SBC, organized an **Expert Talk on "Modeling and Control of DC-DC Power Converter Using Levenberg-Marquardt Based Machine Learning Algorithms"** Held on April 17, 2024, from 10:30 AM to 12:00 PM at F3101, the session was led by Dr. M.G. Umamaheswari, Professor, EEE, Rajalakshmi Engineering College. The event provided valuable insights into advanced control techniques for power converters.

ENERGY EFFICIENCY CLUB

MOCK MUN II on 27th Feb 2024

ENSAV CLUB in association with SSIT Society organized MOCK MUN II. Two committees namely AIPPM (All India Political Parties meet with the agenda as Revolution of Indian Education System) and UNEP (United Nations Environment Programme with the agenda of Globalization: The DEGRADER or SUSTAINER) were simulated.

ENSAV Club Day - 6-3-2024

Sairam ENSAV Club Day is celebrated to commemorate World Energy Efficiency Day by raising awareness towards reducing energy consumption and rewarding the student's excellence in Ensav club activities and motivating them to become more productive.

STUDENT ACHEIVEMENTS
(2024-2025)

SOLVEATHON 3.0

Mahathi S V
Divyavarshini M
Hindu S
guided by
DR.B.MEENAKSHI(PROF/EEE) secured the 2nd position in Goal 15 of SOLVEATHON 3.0 with their innovative project.

Student Accomplishment

Abinaya. R, Arun G.R, Sommanath. T from the 3rd Year EEE Department, Ashwin Kumar. S from 3rd yr CSE Department have clinched the esteemed second prize in the Hackathon Event organized by the Department of EEE at Hindustan Institute of Technology and Science on April 6th, 2024

STUDENT ACHEIVEMENTS
(2024-2025)

First Prize in Hindustan Institute

Vishaal S and Abinaya R from the 3rd Year EEE have claimed first prize in the Project Presentation Event hosted by the Department of EEE at Hindustan Institute of Technology and Science on April 6th, 2024.

Gokul VC and Hariharan S have secured 2nd prize in Paper Presentation during the EEE Symposium on April 6th at Hindustan Science and Technology.

STUDENT ACHEIVEMENTS
(2024-2025)

Shivam Kumar Pandey - EEE A 2ND YEAR secured the 3rd prize with cash award 3000 rupees at the project display event held by WAVES 24 at the College of Engineering Guindy (ANNA UNIVERSITY).

Kundena Swetha, BJ Swetha, Surej R. S & Surya.M won RS.500/TEAM for PAPER/PROJECT PRESENTATION in [National Level technical Symposium-ELYTRICO'2K24] conducted by the Department of Electrical and electronics Engineering- AMET_DEEMED TO BE UNIVERSITY on 21.03.2023.

STUDENT ACHEIVEMENTS
(2024-2025)

Sharavanavell KTK , Mukesh Kumar and Vignesh J won 2nd prize at the Solar-Powered UAV Hackathon by Tamil Nadu smart and Advanced Manufacturing Center (TANSAM) at TIDEL PARK, powered by Siemens.
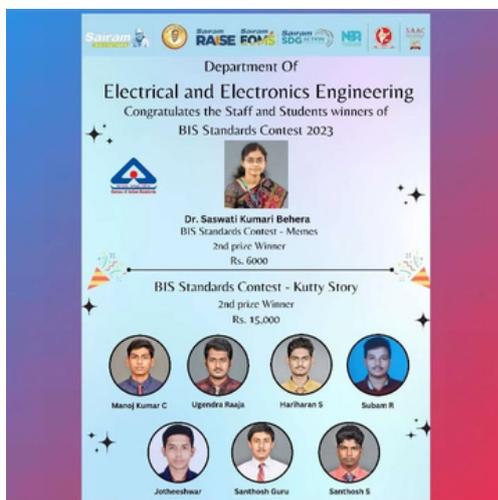
Hariharan S, Santhosh S, Ugendra Raaja, Subam, Manoj Kumar C, Jotheeshwar & Santhosh Guru has secured second place in BIS Contest with a cash award of 1500

STUDENT ACHEIVEMENTS
(2024-2025)

Gokul.G and Jeevanandam.E secured the runner-up medal in handball tournament held at the new Prince Shri Bhavani College of Engineering.

Dhaarani.K, S.Sowmya, T.Reshmi, Srilekha.P & Premalatha.S secured 3rd place in the paper presentation in the event FAISCA 24- conducted by the Department of Electrical and Electronics Engineering of New Prince Shri Bhavani College of Engineering and technology.

STUDENT ACHEIVEMENTS
(2024-2025)

Srilekha P and Sowmya S secured the 2nd Prize and a cash award of Rs. 750 on 8th April 2024 in the event INFOCULTURE FEAST a national level hackathon organized by department of Library and Information science of Sri Sairam Engineering college.
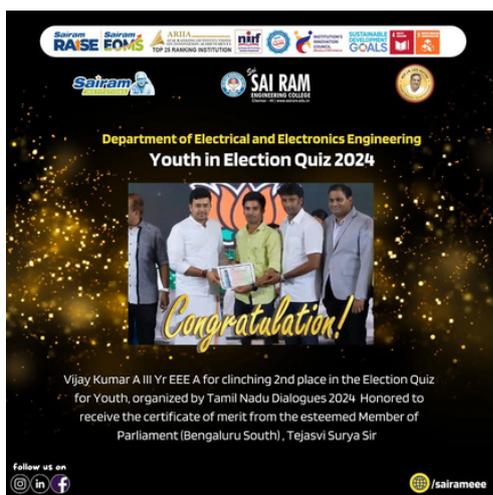
Vijay Kumar A - III YR EEE-A, clinched 2nd place in the Election Quiz for Youth, organized by Tamil Nadu Dialogues 2024 held at YMCA Auditorium

STUDENT ACHEIVEMENTS
(2024-2025)

Ubam R and Dhanush R secured the 2nd prize in Fireless Cooking and the 2nd prize in Paper Presentation during the EEE Symposium held on April 6th at Hindustan Science and Technology.

DIVYA G has been offered with an internship at IIT Guwahati with stipend from June to December 2024 on course Sustainable Power Generation System

STUDENT ACHEIVEMENTS
(2024-2025)

Goal number : 7
Project title : Hybrid Power Generation via Solar & Vertical axis wind turbine
Team lead : Vishaal S
Team members: Pragalathan A, Jaswanth M
Prize : Third prize
Guide: Mrs.J.Shalini Priya,AP/EEE

Goal number : 14
Project title : Aquaculture Water Quality Monitoring System
Team lead : Dhanush Moorthy.R
Team members: Agilesh.M.B, Sahana.A
Prize : First prize
Guide: Dr.K.PrathibaNandhi Asso.Prof/EEE and Mr.Jayandhan.S.A- Sairam Incubation Cell

STUDENT ACHEIVEMENTS
(2024-2025)

Goal number : 05
Project title : MEDIBOTS
Team lead : Arun G R
Team members: Venkatapati.k, sommnath.T, shakthivel.G
Prize : Second prize
Guide: Dr.T.Porselvi, Prof/EEE

Goal number : 9
Project title : Automated life suits with navigators
Team lead : Nivedhitha M
Team members: Reshmi T, Sowmya S
Prize : Third prize
Guide: Dr.R.Azhagumurugan, Prof and HOD/EEE

STUDENT ACHEIVEMENTS
(2024-2025)

The Department of Electrical & Electronics Engineering proudly congratulates the team that secured Runner-Up 2 in Inspirathon 1.0 for their innovative project, "Disposable Lightweight Drone." Guided by Mr. D. Arulselvam, the team—**Sundara Narayanan A, Tharunkumar P, Hari Pradosh SM, and Karthick A**—demonstrated their dedication to sustainable development. This achievement highlights the commitment of Sri Sairam Engineering College to fostering innovation and excellence in engineering.

The Department of Electrical & Electronics Engineering congratulates the team for securing Runner-Up 2 in Inspirathon 1.0 for their project, "Gas Leakage Detection and Refilling System with Automated Fault Clearness." Guided by Mr. K. Rajkumar, the team—**Yokeswaran S, Yuvaraj N, and Guneshwar M**—showcased their innovation in addressing safety concerns

STUDENT ACHEIVEMENTS
(2024-2025)

Jayashree J, Manoj Kumar C, and Vijayavarsshini M secured 1st Prize and a cash award of Rs. 700 on 3rd April 2024 in WAVES 2024 Technical Fest at College of Engineering, Guindy.

FACULTY PUBLICATIONS
(January-May)

Faculty Name : MEENAKSHI.B
Journal/Conference:

1. 2024 International Conference on Intelligent Systems for Cybersecurity (ISCS) (03-04 May 2024)

Title :

1. Enhancing Data Security in Cloud-Based Soil Carbon Sequestration Monitoring Systems Using Random Forest Regression

Faculty Name : SHANMUGAPRIYA.P
Journal/Conference :

1. International Conference
2. International Conference

Title :

1. Optimizing Regenerative Braking Efficiency with Supercapacitor for Electric Vehicles
2. Architect: Visualize Your Dream Space with Augmented Reality

Faculty Name : PORSELVI.T
Journal/Conference :

1. 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS) (24-25 February 2024)
2. **Title :**
3. Smart Water Monitoring with GSM Alerts: An IoT Approach Smart Water Monitoring with GSM Alerts: An IoT Approach

RESEARCH

APPROVED SUPERVISOR:

1.Dr.C. Nayanatara, Professor,Supervisor Recognition : 3430004

She is a recognized supervisor in the area of "Power Systems, optimization Techniques, Renewable Energy Technologies, FACTS" under the Faculty of Electrical Engineering, Anna University.

S.No	Name of the Student	Title of Research	University	Year of Registration	Programme (Ph.D/M.S by research)	Status	Mode of Study (PT/FT)
1	Ms.K. Usha Devi	ELECTRIC VEHICLE ROUTING STRATEGY BY OPTIMIZING DEMAND RESPONSE IN THE ELECTRIC NETWORK	Anna University	January 2024	Ph.D	Course Work	PT
2	Ms.A. Bala Vanitha	Demand Side Management for efficient utilization of industrial/residential power by improving load factor	Anna University	January 2024	Ph.D	Course Work	FT

RESEARCH

2. Dr.K.Suresh, Associate Professor,upervisor Recognition : 4030007

He is a recognized supervisor in the area of "Power System, Intelligent Systems, Control Systems, Embedded Systems" under the Faculty of Electrical Engineering, Anna University

S. No	Name of the Student	Title of Research	University	Year of Registration	Programme (Ph.D/M.S by research)	Status	Mode of Study (PT/FT)
1	Mr.P.Sivaprakasam	HYBRID INTELLIGENT OPTIMIZATION TECHNIQUES FOR POWER SYSTEM RELIABILITY EVALUATION	Anna University	January 2024	Ph.D	Course Work	PT

FACULTY DEVELOPMENT PROGRAM

Department Of Electrical And Electronics Engineering in association with Centre for Faculty and Professional Development Anna University conducted Six days offline faculty development programme on "Energy Storage Systems "from 05.02.2024 to 10.02.2024

FACULTY PATENT DETAILS

Faculty Name	:	Dr. R. Azhagumurugan
Tittle	:	CUTTING-EDGE SENSOR LESS SPEED REGULATION IN INDUCTION MOTOR
Application Number	:	2.02441E+11
Date of Filing	:	1/20/2024
Status	:	Published
Date of Publication	:	2/9/2024

Faculty Name	:	P. Shanmugapriya
Tittle	:	ENERGETIQ:AI'S IMPACT ON INDUSTRIAL ENERGY RESILIENCE
Application Number	:	2.02441E+11
Date of Filing	:	1/12/2024
Status	:	Published
Date of Publication	:	2/2/2024

Faculty Name	:	Dr B Meenakshi
Tittle	:	ANALYZING THE IMPACT ON THE TRANSMISSION MEDIUM BY BROADCAST PACKETS
Application Number	:	202421031598A
Date of Filing	:	4/20/2024
Status	:	Published
Date of Publication	:	5/17/2024

FACULTY PATENT DETAILS

Faculty Name	:	Dr. Saswati Kumari Behera
Tittle	:	1. BUILDING STRUCTURAL MATERIAL FOR BUILDING- STANDARD STEEL-FRAMED STEEL MATERIAL AND ITS MANUFACTURING METHOD
		2. THE IOT ENABLED SMART HEALTH MONITORING SYSTEM IS REVOLUTIONIZING HEALTH CARE WITH CONNECTED DEVICES AND
Application	:	DATA ANALYSIS
Number		1. 415307-001
	:	2. 2.02441E+11
Date of Filing		1. 4/29/2024
	:	2. 3/14/2024
Status	:	Published
Date of Publication		2. 2/2/2024

Faculty Name	:	Dr. A. Sanjeevi Gandhi
Tittle	:	INTELLIGENT INSPECTION SYSTEM FOR INDUSTRIAL GOODS UTILIZING MACHINE LEARNING ALGORITHM
Application	:	2.02441E+11
Number	:	4/1/2024
Date of Filing	:	Published
Status	:	4/12/2024
Date of Publication		

FACULTY TRAINING PROGRAM

Faculty Name	:	SIVAPRASAD.R
Name of the FDP/STTP	:	UHV-II FDP
Date	:	27/05/2024 -01/06/2024
Conducted By	:	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Faculty Name	:	K. PRATHIBANANDHI
Name of the FDP/STTP	:	UHV-2
Date	:	27/05/2024 -01/06/2024
Conducted By	:	AICTE

Faculty Name	:	PORSELVI.T
Name of the FDP/STTP	:	1.EVdesignusingMATLAB 2.IndustrialTrainingprogramatthe
Date	:	1.(29/05/2024-20/06/2024) 2.(29/05/2024-05/06/2024)
Conducted By	:	1.I-STEMBangalore 2.INDUSTRIALTECHNOBLITZ

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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DIVYAVARSHINI M

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