























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



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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.

HIGHER STUDIES- 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.





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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 pleased to share the highlights of the Department of Electrical and Electronics Engineering from June 2022 to December 2022. The department successfully organized the National Level Technical Symposium "TESWATT 2K22" on 7th November 2022, providing students with a platform to showcase their technical expertise. Additionally, we hosted the IEEE **Technically Sponsored** International Conference (ICPECTS 2022) on 8th and 9th December 2022, fostering research and innovation.

Several impactful sessions and seminars were conducted, including a Webinar on the Internet of Things (IoT) by the Women in Engineering Affinity Group and IEEE Power Electronics Society, as well as a Webinar on the Role of Power Electronics in Daily Life, organized as part of the IEEE PELS Day celebrations. The department also hosted a Brainstorming Session on Technical Paper Writing, inaugurated SAI MAGNICON 2022, and conducted the All India Seminar on the Application of Artificial Intelligence and Machine Learning in Electrical Engineering. Another key event was a Seminar on Understanding Wind Farms and Opportunities for Engineers, providing students with insights into renewable energy advancements. Furthermore, Sairam Institutions, in association with SEC IEEE PELS SBC and Sairam SDG Club, conducted a National Level Hackathon to promote problem-solving and technological innovation.

We are proud to highlight that our faculty members actively participated in various internships, enhancing their industrial expertise to provide a better learning experience for students. Our students also achieved remarkable milestones, and excelling in various technical competitions. Moving forward, we encourage our students and faculty to continue their pursuit of excellence in innovation, research, and 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."











SYMPOSIUM TESWATT 2K22







The Department of Electrical Electronics Engineering of Sri Sai Ram Engineering College in association SEC IEEE PELS SBC, SEC IEEE PES, SEC IEEE EDS SBC & WIE AFFINITY **GROUP** conducted **NATIONAL** a. LEVEL SYMPOSIUM-SAI **MAGNICON 2022 - TESWATT**

CONFERENCE ICPECTS 2K22

Department of Electrical Electronics Engineering organized Technically **IEEE Sponsored INTERNATIONAL** THIRD CONFERENCE ON POWER. ENERGY. CONTROL AND **TRANSMISSION SYSTEMS** 2022 (ICPECTS 2022) on December 8th & 9th 2022 in hybrid mode.









WEBNIAR ON INTERNET OF THINGS - 04/6/2022



Women in Engineering Affinity Group and the IEEE Power Electronics Society, in association with the Department of Electrical and Electronics Engineering, organizied a webinar on the Internet of Things (IoT) by expert Speaker Dr. Sathish Kumar

WEBINAR ON POWER ELECTRONICS IN DAY TO DAY LIFE - 20/06/2022

"Department of Electrical and Electronics Engineering" in association with SEC IEEE PELS SBC celebrated "IEEE PELS DAY" by conducting a WEBINAR On "ROLE OF POWER ELECTRONICS IN DAY TO DAY TO DAY LIFE"









WEBINAR ON BENEFITS OF IEEE MEMBERSHIP - 07-07-2022



"Department of Electrical and Electronics Engineering of SEC" in association with IEEE WIE affinity group, PES, EDS and PELS societies conducted webinar on BENEFITS OF IEEE MEMBERSHIP on 07/07/2022.

ALL INDIA SEMINAR ON APPLICATION OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN ELECTRICAL ENGINEERING-27/07/2022 TO 29/07/2022

"Department of Electrical and Electronics Engineering" of SEC in association with THE INSTITUTION OF ENGINEERS(INDIA) conducted "ALL INDIA SEMINAR ON APPLICATION OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN ELECTRICAL ENGINEERING" on 27.07.2022 & 29.07.2022.













WEBINAR ON HOW TO GET INTERN IN CORE COMPANIES -27/07/2022



The department of EEE of SEC in association with IEEE EDS SB Chapter conducted Webinar on "How to get Intern in Core Companies" on 27/07/2022

BRAIN STROMING SESSION ON TECHNICAL PAPER WRITING -10.08.2022

The EEE Department and IEEE PELS SEC SB organized a lecture on power electronics in microgrids on 27th June 2024 at Alpha Hall. Prof. Dr. Mahesh Kumar Mishra from IIT Madras led the session. He shared insights on advanced power electronics applications in grid-connected systems.









SAI MAGNICON - 11/08/2022



Department of EEE inaugurated SAI MAGNICON 2022 on 11/08/2022 in Alpha hall with a guest of honor Mr.Kousik.G solutions manager.

WEBINAR ON GATE AWARENESS - 26/08/2022

IEEE Power Electronic Society of Sri Sai Ram Engineering College in association with Department of Electrical and Electronics Engineering conducted webinar on "GATE Awareness Program" on 26.08.22



WEBINAR ON GATE AWARENESS PROGRAM -15.9.2022



IEEE Power Electronic Society of Sri Sai Ram Engineering College in association with Department of Electrical and Electronics Engineering conducted webinar on "GATE Awareness Program" on 26.08.22







SEMINAR ON UNDERSTANDING OF WIND FARMS AND OPPORTUNITIES FOR ENGINEERS - 16/09/2022



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING IN ASSOCIATION WITH IEEE EDS SBC & ENSAV CLUB of Sri Sairam Engineering College has conducted a Seminar on UNDERSTANDING OF WIND FARMS AND OPPORTUNITIES FOR ENGINEERS on 16.09.2022

AWARENESS PROGRAM ON SMART INDIA HACKATHON-23/09/2022



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING IN ASSOCIATION WITH IEEE EDS SEC SBC and Skill development Club of Sri Sairam Engineering College has conducted an Awareness program on SMART INDIA HACKATHON on 23.09.2022

DISTINGUISHED LECTURE ON PHOTOVOLTAIC ENERGY CONVERSION - 08/11/2022



The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College in association SEC IEEE EDS SBC conducted a lecture on PHOTOVOLTAIC ENERGY CONVERSION on 08.11.22





SKILLRACK ORIENTATION PROGRAM - 17-10-2022

Department of EEE in association with Skill development Club organized a "SkillRack Orientation Program" on 17.10.2022 by Aouthithiye Barathwaj SR Y and Haariharan N C



IEEE LEARNING NETWORK-22/10/2024



The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College* in association SEC IEEE PELS SBC, SEC IEEE PES, SEC IEEE EDS SBC & WIE AFFINITY GROUP conducted an awareness program on "IEEE LEARNING NETWORK" on 04.11.22

REAL TIME SCENARIOS OF POWER PLANTS-08/11/2022



The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College* in association SEC IEEE PELS SBC, SEC IEEE PES, SEC IEEE EDS SBC & WIE AFFINITY GROUP conducted a seminar on REALTIME SCENARIOS OF POWER PLANTS on 08.11.22

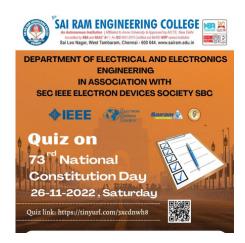


SEMINAR ON INTERNSHIP OPPORTUNITIES- 08-11-2022

The Department of Electrical and Electronics Engineering of Sri Sai Ram Engineering College in association with **AFFINITY** IEEE **WIE** conducted **SEMINAR ON INTERNSHIP OPPORTUNITIES** 08.11.2022



QUIZ ON NATIONAL CONSTITUTION DAY -22/11/2022



Department of Electrical and Electronics Engineering in association with the SEC IEEE Electron Devices Society SBC organized quiz on the 73rd National Constitution Day, scheduled on November 26, 2022.

75th ANNIVERSARY OF THE TRANSISTOR -29/11/2022



Department of Electrical and Electronics Engineering in association with SEC IEEE Electron Devices Society SBC organized celebration of 75th anniversary of the transistor on November 29, 2022.





SDG HACHATHON - 25-12-2022 to 25-01-2023

Sairam Institutions in association with SEC IEEE PELS SBC and Sairam SDG club conducted National Level Hackathon on 24.01.2023 to 25.01.2023



HANDS ON TRAINING ON "THE DESIGN OF BLDC MOTORS"-22/12/2022



The Skill development Club in association with SEC IEEE Power Electronics Society conducted "Hands on Training" on "The design of BLDC Motors" using SIEMENS Simcenter Magnet Software on 22/12/2022

75th ANNIVERSARY OF THE TRANSISTOR -29/11/2022



Department of Electrical and Electronics Engineering of Sri Sairam Engineering College in association with SEC IEEE has conducted an Inauguration ceremony of **IEEE** SOLID STATE CIRCUITS SOCIETY STUDENT BRANCH CHAPTER.







FACULTY PUBLICATIONS

(2022-2023)

Faculty Name : MEENAKSHI.B

Journal/Conference:

- 1. Wireless personal communications (15 June 2022)
- 2. Transactions on Emerging Telecommunications Technologies, Wiley Online Library (23 December 2022)

Title :

- 1. An Adaptive Fuzzy C Means With Seagull Optimization Algorithm for Analysis of WSNs in Agricultural Field With IoT
- 2. Enhanced Elman spike neural network for cluster head based energy aware routing in WSN

Faculty Name : SHANMUGAPRIYA.P

Journal/Conference:

- 1. AIP Conference Proceedings 2527, 040003 (October 2022)
- 2.2022 1st International Conference on Computational Science and Technology (ICCST) (9-10 November 2022)

Title :

- 1. A novel approach for image restoration using convolution network-based image denoising technique
- 2. A fuzzy-genetic approach to identify optimal DG sources plan in power system network

Faculty Name : PRATHIBANANDHI.K

Journal/Conference:

1.2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)

Title :

1. Design and Implementation of Electric Cycle

Faculty Name : SHALINI PRIYA J

Journal/Conference:

1.2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)

Title :

1. Microcontroller Based Wet Grinder System For Domestic Applications







FACULTY PUBLICATIONS (2022-2023)

Faculty Name : SIVAPRASAD.R

Journal/Conference:

- 1. International Conference on Automation, Computing and Renewable Systems, ICACRS 2022 (13-15 December 2022)
- 2. International Conference on Automation, Computing and Renewable Systems, ICACRS 2022 (13-15 December 2022)

Title :

- 1. Heart Disease Prediction and Classification using Machine Learning and Transfer Learning Model
- 2. Optical Flow-based Tracking of Vehicles using Adaptive Particle Filter Target Tracking Algorithm based for Accident Prevention

Faculty Name : VENKATESAN.G

Journal/Conference:

- 1.2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)
- 2.2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)

Title :

- 1. Automatic intelligent model for Lung tumor detection using medical imagesPower Generation Using Barium Titanate Piezoelectric Material [Tizo-Gen]
- 2. Modified U Net based learning model for semi supervised medical image segmentation

Faculty Name : HEMALATHA.M

Journal/Conference:

- 1.2023 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)
- 2.2023 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)

Title :

- 1. Solar- Powered Automatic Dispenser
- 2. An intelligent authentication system for improved security







FACULTY PUBLICATIONS (2022-2023)

Faculty Name : RAJKUMAR.K

Journal/Conference:

1. Smart Energy and Advancement in Power Technologies (SEAPT 2022) (22 October 2022)

Title

1. Charging Electric Vehicles at Fuel Stations UsingSolar Energy And Fuel Cell Technology

Faculty Name: PORSELVI.T

Journal/Conference:

- 1. Sixth International Conference on I-SMAC (10-12 November 2022)
- 2.2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS) (8-9 December 2022)

Title:

- 1. Wind Energy Fed SEPIC Converter with PID Controller for High Performance
- 2. Location sensitive browser App using MIT app inventor for blocking social media websites in Educational Institutions









STUDENT ACHEIVEMENTS (2022-2023)

NCC Participation – Republic Day Parade (28th January 2022)

NCC Participation – Republic Day Parade (28th January 2022)

The NCC plays a pivotal role in shaping the youth of the country, In line with this, Ms. Sandra Antony, a third-year student from the Department of Electrical and Electronics Engineering, participated in the Republic Day Parade – Prime Minister's Rally in New Delhi on January 28, 2022. This achievement reflects her dedication and the values instilled through the NCC.





Student Hackathon Achievement – OCEANS 2022 february (IIT Madras)

Student Hackathon Achievement – OCEANS 2022 february (IIT Madras)

We, the EEE'ians, congratulate our third-year students Sai Ganesh, Aouthithiye Barathwaj, and their team for securing second place in the Student Hackathon at OCEANS 2022, held at IIT Madras, Chennai. Their innovative approach and hard work led to this outstanding achievement.











STUDENT ACHEIVEMENTS (2022-2023)

PALS Initiative and Achievement – innoWAH! 2021-2022

PALS, an educational initiative supported by IIT Alumni Industry Interaction Centre and IIT Madras Alumni Charitable Trust, aims to enrich engineering students through lectures, workshops, and industry projects. Ms. Krithika B., a third-year EEE student from Sri Sairam Engineering College, has been selected to compete in the innoWAH! Innovation Challenge 2021-2022 with her project titled 'SMART METER AND LECCY'.



Mitacs GRI 2022 Scholar Achievement



The Department of EEE, Sri Sairam Engineering College, is proud to announce that Sai Ganesh CS, a third-year student, has been selected as a Mitacs GRI 2022 Scholar in Canada. He undergone an internship at the University of Manitoba, working on Generative Deep Learning for Electromagnetic Imaging. This opportunity, offered by Mitacs, Research Manitoba, and AICTE, comes with a stipend of CAN \$12,000 and a graduate scholarship at universities across Canada.











Faculty Awards (2022-2023)

Faculty Name : Dr. T. Porselvi

Award : Innovation Research & Dedicated

Publications : Academician Award

The Society of Innovation Educationalist & Scientific Research

Professional Chennai



FacultyName : Dr.B.Meenakshi

Award: Innovation Research & Dedicated

Publications : Academician

The Society of Innovation Educationalist &

Scientific Research Professional Chenna



Faculty Name: Dr.C.Nayanatara

Award: Professional and Research

Publications: Achievements

Institute of Researchers













Faculty Patent Details



Faculty Name : MR.P.RAJAKUMAR

Tittle : BIOMETRIC FINGERPRINT BASED VOTING MACHINE

Application Number : 202241066493

Date of Filing : 19/11/2022
Status : Published
Date of Publication : 25/11/2022











FACULTY INTERNSHIP

Sl. No	Name	Company name	Period of Training
1	Dr. B. Meenakshi	IPL TRANSFORMER S AND PRODUCTS	6.06.2022 to 11.06.2022
2	Ms. P. Sharmila	IPL TRANSFORMER S AND PRODUCTS	13.06.2022 to 18.06.2022
3	Mr. R. Sivaprasad	IPL TRANSFORMER S AND PRODUCTS	13/06/2022 to 18/06/2022
4	Dr. Saswati Kumari Behera	IPL TRANSFORMER S AND PRODUCTS	06/06/2022 to 11/06/2022
5	Ms. M. Hemalatha	Kasa Anlagen India Private Limited	27.06.2022 to2.07.2022
6	Ms. J. Shalini Priya	Kasa Anlagen India Private Limited	27.06.2022 to2.07.2022
7	Ms. V. Chithra	IPL TRANSFORMER S AND PRODUCTS	13/06/2022 to 18/06/2022
8	Ms. R. Kothai	IPL TRANSFORMER S AND PRODUCTS	13/06/2022 to 18/06/2022
9	Dr. A. Sanjeevi Gandhi	IPL TRANSFORMER S AND PRODUCTS	13/06/2022 to 18/06/2022







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Dr.L.KURINIJIMALAR

Associate Professor

Electrical and Electronics Engineering

STUDENT EDITOR TEAM

DHILIPKUMAR S

III Year

Electrical and Electronics Engineering

AJITHA SRI

III Year

Electrical and Electronics Engineering

SURIYAN N

III Year

Electrical and Electronics Engineering

SELVAPRIYA V

III Year

Electrical and Electronics Engineering









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