Sairam

NEWSLETTER EEE

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Sri
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

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

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

From the HoD's desk...

We are pleased to share the highlights of the Department of Electrical and Electronics Engineering from **June 2021 to December 2021**. The department successfully conducted the National Level Technical Symposium **"FLUXION '21"** on **20th October 2021**, providing a platform for students to showcase their technical skills.

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

A series of technical sessions were organized, including a Key note Talk on "Micro to Nano Semiconductor Devices and Application and a workshop on PCB DESIGN USING KICAD , ensuring students stay updated with industry advancements. The **SAIRAM ENSAV Club** successfully conducted "Sairam MUN 2.0" Conference, where teams took roles as CEO, Policy Maker, and Environment Analyst to discuss the Global Transition towards Renewable Energy, fostering leadership and analytical skills.

We are also proud to highlight that our faculty members actively engaged in various internships, enhancing their industrial knowledge to provide a better learning experience for students. As we move forward, we encourage our students and faculty to continue their journey of 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."

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MJF.LN. LEO MUTHU Founder Chairman - Sairam Institutions

SYMPOSIUM
FLUXION '21

Department of Electrical and Electronics Engineering, Sai Magnicon proudly conducted 21st National Level Technical Symposium "FLUXION '21" held on 20th October, 2021

CONFERENCE
SAIRAM MUN 2.0

Department Of Electrical And Electronics Engineering Organizes IEEE Technically Sponsored "Sairam MUN 2.0" Conference for students on 29/10/2021 and 30/10/2021

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Founder Chairman - Sairam Institutions

GUEST LECTURE /WORKSHOP

A Hands On Training On “Deep Learning”- 07/08/2021

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter and WIE Affinity Group, organized a hands-on training program on “Deep Learning” on 7th August 2021. The session was conducted by Mr. Krishnan V. C., System Engineer at TCS, Chennai, who provided practical insights and guidance on deep learning concepts and applications.

Key note Talk on “Micro to NAno Semiconductor Devices and Application”- 16/09/2021

The Department of Electrical and Electronics Engineering organized the Inauguration of the IEEE Electron Devices Society, followed by a keynote talk on “Micro to Nano Semiconductor Devices and Applications” on 16th September 2021. The keynote address was delivered by Dr. D. Nirmal from the IEEE EDS Coimbatore Chapter, Madras Section, who shared valuable insights on semiconductor device technologies and their evolving applications from micro to nano scales.

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GUEST LECTURE /WORKSHOP

Skillrack Orientation Program – 25.09.2021

The Department of Electrical and Electronics Engineering, in association with the Skill Development Club, organized a "Skillrack Orientation Program" on 25th September 2021. The session was conducted by Mr. ShivarRam N., Web Developer at Zoho Corp. Pvt. Ltd., and Mr. J. Sidharthan, Software Engineer at Prodapt Solutions Pvt. Ltd., who provided an overview of the Skillrack platform and its benefits in enhancing programming and problem-solving skills.

ONE DAY TRAINING SESSION ON PCB FABRICATION - 25/09/2021

The Department of Electrical and Electronics Engineering at Sri Sairam Engineering College, in association with the Skill Development Club, organized a one-day training session on "PCB Fabrication" on 25th September 2021. The session was conducted through Google Meet by Mr. Raja, Product Development Engineer at Silicon System, Coimbatore, who created awareness about PCB design and fabrication processes.

GUEST LECTURE /WORKSHOP

"IEEE Day 2021 – TECHPILLA" - 05/10/2021

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter and WIE Affinity Group, celebrated "IEEE Day 2021 – TECHPILLA" on 5th October 2021. The event featured a special address by Dr. M. Venkateshkumar, Vice Chair of IEEE PES Madras Section and Associate Editor of the IEEE Access Journal, and Assistant Professor (Senior Grade) at Amrita School of Engineering, Chennai, who shared his insights on advancements in electrical and electronic engineering.

Workshop on "Entrepreneurship and Innovation as Career Opportunity" – 24.11.2021

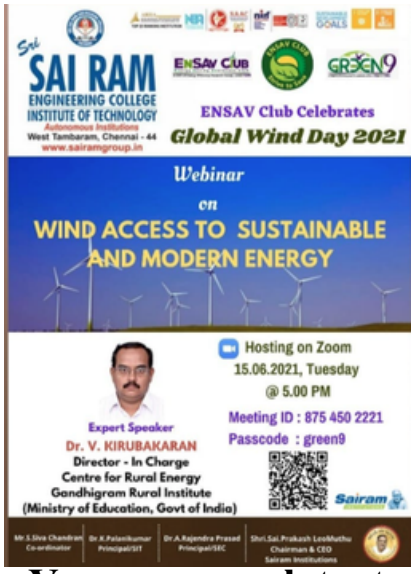
The Department of Electrical and Electronics Engineering, in association with the Institution Innovation Council (SEC-IIC) and the Entrepreneurship Development Cell (EDC), conducted a workshop on "Entrepreneurship and Innovation as a Career Opportunity" on 24th November 2021. The session was delivered by Ms. Gunavathi Gunasekaran, Electromagnetic Design Engineer at TAV Systems Pty Ltd, Australia, who shared valuable insights on pursuing entrepreneurship and innovation as a promising career path.

GUEST LECTURE /WORKSHOP

Value added course on PCB DESIGN USING KICAD – 14/12/2021 to 18/12/2021

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter, WIE Affinity Group, IEEE EDS Student Branch Chapter, and IE(I), conducted a Value-Added Course on "PCB Design using KiCad" for second-year students at the Hands-on Training Centre. The session was handled by Mr. E. Arunkumar, Vice President of Retech Solutions Pvt. Ltd., on 14th December 2021 to 18th December 2021 who provided practical training on PCB design using the KiCad software.

WEBINAR ON WIND ACCESS TO SUSTAINABLE AND MODERN ENERGY – 15/06/2021



The ENSAV Club of Sri Sairam Engineering College organized a webinar on "Wind Access to Sustainable and Modern Energy" on 15 June 2021 to mark Global Wind Day, aligning with SDG 7 and SDG 11. The session was delivered by Dr. V. Kirubakaran, Director (In-Charge), Centre for Rural Energy, Gandhigram Rural Institute. He highlighted the role of wind energy in ensuring clean, sustainable, and accessible power for the future.

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STUDENT ACHIEVEMENTS

ENERGY CONSERVATION DAY - 2021

The Department of Electrical and Electronics Engineering, in association with the IEEE PES SB Chapter AND IGEN conducted an Awareness Program on -++Energy Conservation day 2021. Students also performed a street play to show how careless use of electricity leads to energy wastage. Through this play, we explained simple ways people can save electricity at home, such as using LED bulbs, turning off fans and lights when not needed, and using renewable energy sources.

FACULTY PUBLICATIONS

(June-December 2021)

Faculty Name : Dr.P.SHANMUGAPRIYA
Journal/Conference :
AIP Conference Proceedings – Nov 2021
Title :
Optimizing Sensor Deployment Strategy for Large-Scale Internet of Things Using Artificial Bee Colony

Faculty Name : MOHAN S
Journal/Conference :

1. ICCCT 2021 – Dec 2021
2. Advances in Parallel Computing – 2021

Title :

1. Photovoltaic Fed Flyback Converters Using Improved Perturb and Observe Algorithm Online Transformer Monitoring System

Faculty Name : Dr.B.MEENAKSHI
Journal/Conference :

1. Journal of Physics: Conference Series – Jul 2021
2. Journal of Physics: Conference Series – Jun 2021

Title :

1. Fault Detection in Wind Farm Turbine Using Machine Learning Based on SVM Algorithm
2. Designing and Commissioning of Heat Pumps for Hybrid Heating Using Solar Panels
3. Intelligent MPPT Control for Wind Energy Conversion Systems Based on Reinforcement Learning

FACULTY PUBLICATIONS

(June-December 2021)

Faculty Name : Dr.T.PORSELVI

Journal/Conference :

1. Journal of Physics: Conference Series (Jun 2021)
2. 2nd Global Conference for Advancement in Technology (GCAT 2021) – Oct 2021
3. Journal of Physics: Conference Series – Jun 2021
4. 2021 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – Dec 2021

Title :

1. Grid Connected Bidirectional Converter Based EMS System with Model Predictive Control
2. PV System Based Induction Motor with Landsman Converter Using IFOC Controller
3. Improved Prediction of Wind Speed Using Machine Learning
4. PV Based Multilevel Inverter with 15 Levels Using POD Control Method
5. IoT Implementation – A Comparative Study

Faculty Name : Dr.P.SHANMUGAPRIYA

Journal/Conference :

1. Journal of Electrical Engineering and Technology – November 2021
2. 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – December 2021

Title :

1. Flexible Dispatch Strategy Adopted by Optimizing DG Parameters in a Real Time Power System Distributed Network
2. Power Plant Automation Using SCADA in a Gas Insulated Substation
3. Optimal Placement of Distribution Generator by Incorporating Demand Response Strategy for Residential and Industrial Users

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FACULTY PUBLICATIONS

(June-December 2021)

Faculty Name : RAJKUMAR K

Journal/Conference :

1. Engineering Science and Technology: An International Journal – August 2021

Title :

1. Control of Transformerless T-Type DVR Using Multiple Delayed Signal Cancellation PLL Under Unbalanced and Distorted Grid Condition
2. IoT Based Battery Thermal Monitoring in E-Vehicle System

Faculty Name : KURINJIMALAR L

Journal/Conference :

1. Journal of Electrical Engineering and Technology – June 2021
2. 4th International Conference on Computing and Communications Technologies (ICCCT 2021) – December 2021

Title :

1. Analysis of Electromagnetic and Vibration Characteristics of a Spoke Type PMBLDC Motor
2. Screw Propelled Autonomous Amphibian Waste Collector

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FACULTY PATENT

(June-December 2021)

Faculty Name : Dr.SASWATI KUMARI BEHERA
Title : Intelligent Waste Classifying Bin for Eco-Friendly Bio Composting
Application Number : 202141030061
Date of Filing : 05-07-2021
Date of Publication : 16-07-2021
Status : Published

Faculty Name : MOHAN S
Title : Optimization of New Product Development Cycle through Fuzzy Logic
Application Number : 202141025443
Date of Filing : 08-06-2021
Date of Publication : 25-06-2021
Status : Published

Faculty Name : JEEVA C
Title: Gateway Clustering Energy Efficient Centroid Integrated Protocol for Wireless Sensors to Increase Productivity in the Agriculture Field
Application Number : 202141035772 A
Date of Filing : 07-08-2021
Date of Publication : 13-08-2021
Status : Published

FACULTY PATENT

(June-December 2021)

Faculty Name : Dr. R.AZHAGUMURUGAN
Title : Smart Vehicle Run by Renewable Energy Generator
Application Number : 348506-001 (Design Patent)
Date of Filing : 27-08-2021
Date of Publication : 27-08-2021
Status : Published

Faculty Name :V. MALINI
Title: High Secured Remote Patient Monitoring System using IoT, Cloud Computing and AI
Application Number : 202141044795
Date of Filing : 02-10-2021
Date of Publication : 15-10-2021
Status : Published

Faculty Name : Dr.P.SHANMUGAPRIYA
Title : IoT Based Energy Management System in Microgrid using LoRaWAN
Application Number : 202141049030
Date of Filing : 27-10-2021
Date of Publication : 26-11-2021
Status : Published

Faculty Name : Dr.A.SANJEEVI GANDHI
Title: Virtual Instrumentation Based Automatic Fabric Defect Detection System
Application Number : 202141053821
Date of Filing : 23-11-2021
Date of Publication : 10-12-2021
Status : Published

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

EDITOR TEAM

Mr. MOHAN S
Assistant Professor
Electrical and Electronics Engineering

STUDENT EDITOR TEAM

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III Year
Electrical and Electronics Engineering

HARISH R
IV Year
Electrical and Electronics Engineering

KHUSHI P
IV Year
Electrical and Electronics Engineering

NITHISH S
III Year
Electrical and Electronics Engineering

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Sairam EOMS — *Improving* PROCESS

Sairam SDG ACTION PROGRAM — *Instilling* PURPOSE