

CIRCUITRY

N E W S L E T T E R

ELECTRICAL & ELECTRONICS ENGINEERING



March - April 2025

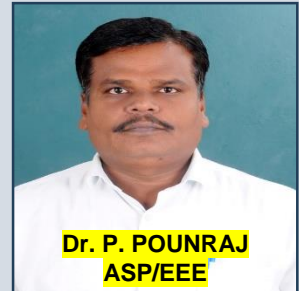
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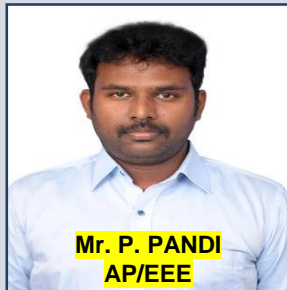
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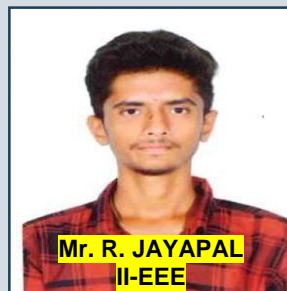
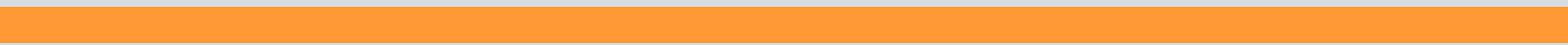


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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

About the Department

The Department of Electrical and Electronics Engineering was established in the year 2008 with the aim of combining modern teaching methods with inter-disciplinary knowledge, human values and professional ethics. The department offers a unique blend of theory and practice. It provides a quality learning environment, in terms of state-of-the-art facilities, sharing and widening of knowledge through MoU with relevant industries and interacting with experts from academia and industry. The department is well equipped with state-of-the-art laboratories such as the Electrical Machines Lab, Electric Circuits Lab, Control Systems Lab, Measurement and Instrumentation Lab, Engineering Practices Lab, Power Electronics Lab, Power System Simulation Lab and Electric Drives and Control Lab. To improve practical and simulation skills, MATLAB Software with all tool boxes has been provided. Power World Simulator, MI Power, PSpice and MultiSim software programmes have been provided to improve the designing ability of the students.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VISION

- To create a thriving community where enduring student relationships flourish, fostering a culture of innovative idea development, socially responsible, and ethically driven engineers in the electrical industry.

MISSION

- To nurture students, enabling them to effectively confront professional challenges and emerge as outstanding engineers and technocrats.
- To provide a holistic and comprehensive education that ensures total quality, encompassing broad exposure and value additions.
- To engage in research within the realm of Electrical and Electronics Engineering, addressing the needs of the industry, scientific community, and society at large.

Activity Name: Ecosystem and Biodiversity Thinking

Date: 15-03-2025

Class & No. of Participants: II Year EEE & 35 students

Venue: II Year EEE Classroom.

Description:

Environmental science and sustainability subject activity titled “Eco system and bio diversity thinking” was conducted for II EEE students on 07-03-2025. This practical session aimed to equip students with an understanding that ecosystems with high biodiversity are more likely to withstand and recover from environmental changes., whether caused by natural events or human activities. Embracing biodiversity thinking encourages sustainable practices that preserve resources for future generations Promoting the well-being of ecosystems benefits all species, including humans, and promotes a fairer, more equitable relationship with nature.

Event Photos:



Programme Name: 5 Days - Industrial Training

Date: 17-03-2025 to 21-03-2025

Class & No. of Participants: III Year EEE & 5 students

Venue: Chettinad Cement Corporation Pvt. Ltd, Karikali, Dindigul.

Description:

The Department of Electrical and Electronics Engineering organized a five-day industrial training session from March 17 to 21, 2025, for third-year students at Chettinad Cement Corporation Pvt. Ltd., focusing on electrical systems, power distribution, motor control, maintenance procedures, troubleshooting techniques, automation, and safety protocols. The training included plant visits, hands-on experiences, and interactive sessions with industry professionals.

On Day 1, students learned about the plant's electrical infrastructure and safety measures, and the comprehensive electrical system designed for large-scale operations followed by an orientation session by the electrical engineering team highlighting the importance of safety in preventing electrical hazards.

On Day 2, students visited the power distribution center, learned about distribution networks, switchgear, motor control systems, variable-frequency drives (VFDs), and strategies for efficient power supply and energy optimization.

On Day 3, students learned about motor control, maintenance, and troubleshooting activities and discussed preventive measure strategies. They also studied MCCs and components like starters and relays, contactors, and overload relays, as well as the importance of a systematic approach.

On Day 4, the Technical Engineers explained the selection and application of various motors used in cement production and covered transformer fundamentals, including construction, working principles, cooling methods, and maintenance procedures.

On the final day, students explored automation technologies and safety protocols, with a focus on PLC systems, learning how automation enhances efficiency and accuracy while safety measures prevent accidents.

We extend our sincere gratitude to Chettinad Cement Corporation Pvt. Ltd. for this exceptional training opportunity for our students. Special thanks to the HR team, electrical engineers, and all staff members who contributed to this enriching experience.

Event Photos:



Programme Name: Power Audit

Date: 24-03-2025 to 28-03-2025

Class & No. of Participants: III Year EEE & 5 students

Venue: Government Medical College and Hospital, Dindigul.

Description:

A comprehensive Power Audit was conducted at the Government Medical College and Hospital, Dindigul from March 24, 2025, to March 28, 2025. The audit aimed to evaluate the energy consumption patterns, identify potential areas for energy conservation, and recommend strategies for improving overall energy efficiency.

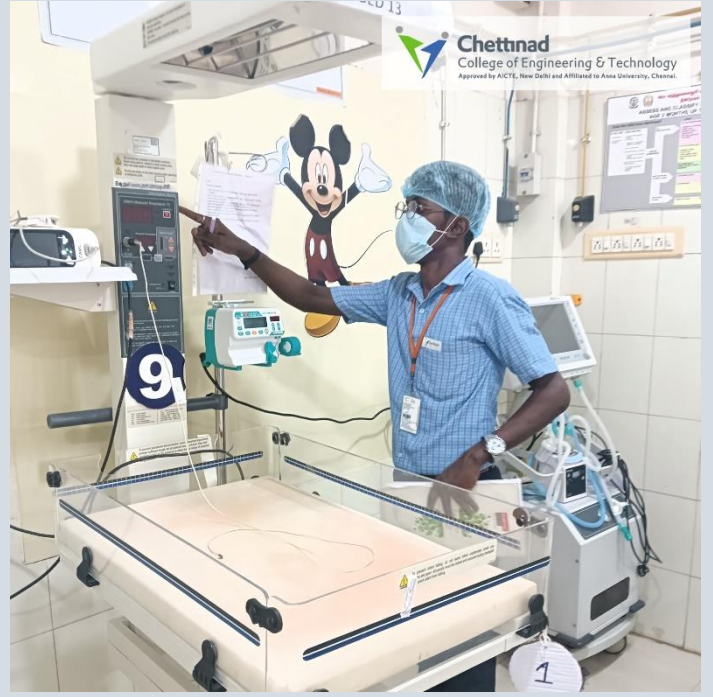
The audit was executed by a dedicated team comprising third-year EEE students from Chettinad College of Engineering and Technology, Karur. The initiative was undertaken as part of their academic training and practical exposure in the domain of energy auditing.

The audit activities were carried out under the supervision of Mr. N. Vijayasarithi, Head of the Department / EEE, and Mr. S. Ragul, Assistant Professor / EEE. The faculty provided valuable guidance throughout the audit process, which included load analysis, identification of high-energy-consuming equipment, assessment of power factor, examination of lighting and HVAC systems, and evaluation of the overall electrical infrastructure.

This collaborative effort not only contributed to the professional development of the students but also provided insightful recommendations to the hospital administration for optimizing energy usage, reducing power costs, and promoting sustainable practices within the institution.

Event Photos:





Activity Name: Double-Tran

Date: 25-03-2025

Class & No. of Participants: II Year EEE & 35 students

Venue: G Block Computer Laboratory

Description:

The Department of Electrical and Electronics Engineering (EEE) at Chettinad College of Engineering and Technology conducted a technical activity titled "Double-Tran" on 25-03-2025 for II Year EEE students. The session took place in the G Block EEE Computer Lab, under the guidance of faculty in-charge Mr. P. Pandi, Sr. AP/EEE

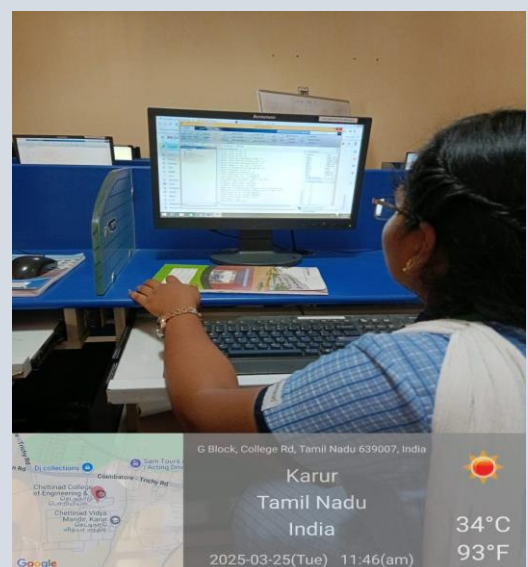
Objective of the Activity

- To help students understand the parameters of a double transmission line, such as Geometric Mean Distance (GMD) and Geometric Mean Radius (GMR).
- To provide insights into transmission line regulation and efficiency using ABCD constants.
- To train students in developing MATLAB code to solve numerical problems related to double transmission lines.
- To promote awareness about the importance of earthing systems in protecting human life and equipment.

Activity Highlights

- Students actively participated in computing GMD, GMR, regulation, and efficiency of transmission lines.
- They successfully developed and submitted MATLAB code outputs relevant to the activity.
- The activity fostered teamwork, communication, and hands-on tool usage.

Activity Photos:



Programme Name: 2 Days Industrial Visit

Date: 18-04-2025 to 19-04-2025

Class & No. of Participants: II Year to III Year EEE & 62 students

Venue: Kerala

Description:

On the 18th and 19th of April 2025, students from the Electrical and Electronics Engineering Department (I, II, and III Years) participated in an industrial visit organized to enhance their practical understanding of industry operations. A total of 62 students, accompanied by 5 faculty members, (Mr.N.Vijayasarithi, Dr.M.Senthil Kumar , Mrs.P.Thenmozhi , Mr.S.Ragul and Mr.K.Boopathi) visited Marayoor Jaggery Production Unit in Marayoor and Kanan Devan Hills Plantations Company Limited,Munnar.

On 18th April 2025, the group visited the Marayoor Jaggery Production Unit, renowned for producing traditional jaggery from sugarcane without the use of chemical additives. This jaggery, recognized with a Geographical Indication (GI) tag, is celebrated for its purity and distinct flavor. The visit offered students a unique perspective on organic food processing, traditional techniques, and rural entrepreneurship.

On 19th April 2025, the students visited Kannan Devan Hills Plantation Company, a renowned tea manufacturing company located in Munnar, known for its rich legacy in producing high-quality teas such as black tea, green tea, and herbal infusions. The visit provided valuable exposure to the tea production process, from plantation to packaging, highlighting the advanced technologies and strict quality standards maintained by the company.

Students observed the lush tea plantations and learned about different varieties of tea plants cultivated. They gained insights into the plucking and sorting processes, witnessing skilled workers handpicking high-quality leaves. The tour continued through the withering, rolling, fermentation, and drying stages, where students understood how each step contributes to developing the tea's unique flavor and aroma. Finally, they observed the sorting and packaging of the finished tea products, gaining a comprehensive understanding of the complete manufacturing cycle.

Event Photos





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