CIRCUITRY CHRONICLES

Department of Electrical & Electronics Engineering

volume

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CREATIVE DESK



CIRCUITRY CHRONICLES

NEWSLETTER

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

About the Department

The Department of Electrical and Electronics 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.

CIRCUITRY CHRONICLES

NEWSLETTER

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.

Contest Name: Re-Volt

Class & Participants: I Year- 36 Students

Date: 14-07-2023

Venue: Electrical Machines Lab

Coordinator: Mrs. A. Bhuvaneswari, Sr.AP/EEE

Description:

On July 14th, the Department of Electrical and Electronics Engineering held a "Re-Volt contest" for 1st-year EEE students to improve their concepts of Multisim and fabricate PCBs for prototyping as well as for the Industrial Production environment. A total of 15 batches registered, with each batch's students showcasing their Electronics Circuits' output in Multisim and demonstrating the circuit on the PCB model. Every participating batch produced flawless results, and the evaluation procedure included reviewing performances, the functionality of the working models, and accurate output. The honorable judges, Mr. P. Prakash, AP/MECH, and Ms. D. Ragavi, AP/ECE, will announce the winners. Dr. J. Kavitha, Professor/AI&DS, paid a visit on this auspicious occasion, and students described how each equipment worked. Madam praised the students for their achievements.

Contest Photos:







Chettinad College of Engin

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Programme Name: College Campus Cleaning Activity

Date: 12-07-2023

Venue: CCET Campus

Description:

The Department of Electrical and Electronics Engineering organized a campus cleanup event conducted by first-year EEE students on July 17, 2023. The primary objective of this cleaning activity was to maintain a clean, safe, and healthy environment for students, faculty, and visitors. Certain areas, such as entrances, hallways, and common gathering spaces, tend to accumulate more dirt, dust, and debris. Increased attention was given to these areas to ensure cleanliness and tidiness throughout the day. While carrying out the cleaning activities, various maintenance issues were observed, including broken pipes, damaged lights, and furniture. These issues were reported to the maintenance department for immediate resolution to ensure a safe and functional environment. Students actively participated in cleaning the college premises. The dedicated cleaning efforts were overseen by Mr. P. Pandi, Sr. AP/EEE, who ensured that high standards of cleanliness were maintained in various areas and common spaces. Mr. N. Vijayasarathi, HoD/EEE, appreciated all the students for their vital contribution to this cleanliness initiative.





Prgramme Name: Field Visit

Date: 20-07-2023

Venue: TANGEDCO-Puliyur Sub Station

Description:

Chettinad College of Engineering and Technology aims to provide active learning experiences to students, making them industry-ready and professionally trained. As part of their curriculum, our first-year B.E.-EEE students, along with two faculty members, went on a field trip to TANGEDCO, Puliyur, Karur (District), on 20.07.2023, to gain practical exposure and insights into a real working environment. This field trip included learning about various elements of a substation, as well as the stages of power transformation and the protection of power circuits from disturbances. The field visit was highly informative for the students, who gained valuable exposure to power transmission and distribution.





Programme Name: Value Added Course on "Design & Implementation of Solar and Wind Energy Systems"

Date: 24-07-2023 to 26-07-2023

Class & Participants: Third-Year EEE & 25 Students

Faculty incharge: 1. Dr. M. Senthil Kumar, Prof./EEE, 2. Mrs. A. Bhuvaneswari, Sr.AP/EEE,

3. Mrs. P. Thenmozhi, AP/EEE

Description:

The Department of Electrical and Electronics Engineering conducted a Value-Added Course on "Design and Implementation of Solar and Wind Energy Systems" from 24-7-2023 to 26-7-2023 for third-year EEE students. The course aimed at enhancing their understanding of renewable energy systems, particularly in solar and wind energy. It covered fundamental concepts, and students were guided through simulations using the MATLAB compiler. During the course, students simulated PV cells to study their voltage and current characteristics, with a focus on maximum power tracking and controllers using MATLAB. They also learned to calculate the efficiency of 1KW PV cells with and without shadowing effects. Furthermore, they were introduced to simulating "Wind Energy Generators" using MATLAB and delved into Hybrid Power Systems.

Reflecting on the course, Mr. P. Gowtham expressed gaining knowledge in designing and implementing solar and wind energy systems with MATLAB, particularly in calculating and implementing 1KW power in PV cells under various conditions. Ms. R. Mirudhula acknowledged learning the basics of MATLAB compiler and PV cells. She also demonstrated the characteristics of solar PV cells with and without shading effects and comprehended the functioning of Wind Energy systems.

Mr. S. Lakshan recognized the importance of renewable energy systems and the MATLAB compiler, as well as gained an understanding of how to calculate energy from PV cells. The practical implementation of PV cells with and without shading effects, and measuring current and voltage flow, proved to be an engaging experience. Additionally, they attained proficiency in compiling MPPT controllers and designing solar and wind energy systems with MATLAB. Overall, the session proved to be interactive and insightful, providing valuable learning experiences for all the students involved in the course.



Programme Name: Live Demonstration Class on "Exploring Transformers, Motors, and Generators"

Date: 21-08-2023

School Name & Participants: Chettinad Vidya Mandir & 60 Students

Faculty incharge: 1. Mrs. A. Bhuvaneswari, Sr.AP/EEE, 2. Mr. S. Ragul, AP/EEE

Description:

On August 21, 2023, a group of 60 Class 12 students along with five faculty members from Chettinad Vidya Mandir School visited our campus with the purpose of gaining knowledge about the fundamentals of transformers, motors, and generators. During the session, our college's faculty, Mr. S. Ragul, Assistant Professor of Electrical and Electronics Engineering, and Ms. A. Bhuvaneswari, Senior Assistant Professor of Electrical and Electronics Engineering, explained the design and operation of the transformer along with the construction and operation of the motor and generator through a live demonstration and calculations. This interactive demonstration helped develop the students' understanding of the workings of transformers, motors, and generators.









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