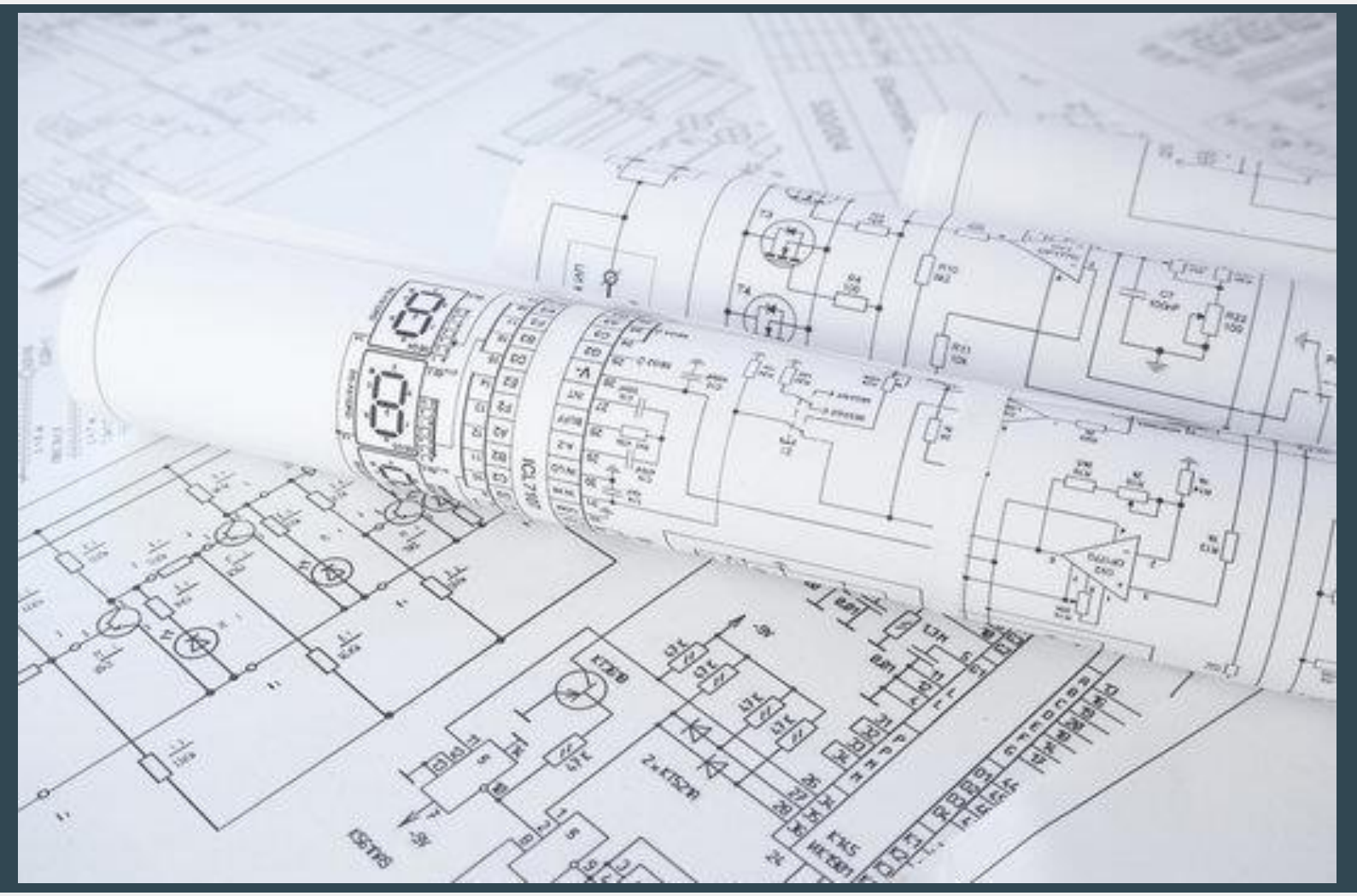
CIRCUITRY CHRONICLES

N E W S L E T T E R

ELECTRICAL & ELECTRONICS ENGINEERING



MARCH – APRIL 2026

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VOLUME NO. 7
(Issue 2)

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CIRCUITRY CHRONICLES

NEWSLETTER

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 interdisciplinary 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 Memorandum of Understanding (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 programs have been provided to improve the designing ability of the students.

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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.

Programme Name: Technical Contest on "EV Design Challenge"

Target Group: II & III Year B.E. Electrical and Electronics Engineering (EEE) Students

Time: 2.15PM to 4.15 PM

Date: 10.03.2026

Coordinator: Dr. R. Boopathi, AP/EEE

Venue: Electrical Machines Lab

Description:

On 10th March 2026, the Department of Electrical and Electronics Engineering organized a Technical Contest on "EV Design Challenge" for II and III Year EEE students. The event was organized at the Electrical Machine Laboratory to provide a practical and technical learning environment for the participants. A total of 66 students participated in the contest, including 35 students from III Year EEE and 31 students from II Year EEE, showing enthusiastic involvement in the activity.The main objective of the contest was to encourage students to develop innovative ideas and technical knowledge in Electric Vehicle (EV) design and sustainable transportation technologies. Students participated individually and in teams and presented their creative EV design concepts and innovative technical solutions related to Electric Vehicle technology. Their presentations included ideas related to EV structure, battery management systems, energy-efficient design, and charging infrastructure.

The presentations were evaluated by the jury member, Dr. B. Balasubramanian, AP/MECH., who assessed the participants based on innovation, feasibility, technical content, and presentation skills. Finally, he announced the results and congratulated the winners of the EV Design Challenge contest. The First Prize was awarded to the II Year EEE team of J. Preetha and P. Deepika, and the Second Prize was secured by the III Year EEE team of Patrick Joswa J, Rohith R, and Yeshwanth S. The event concluded successfully with active participation from the students.

Technical Contest Photos:

Programme Name: Industrial Visit

Target Group: I & III Year B.E. Electrical and Electronics Engineering (EEE) Students

Dates of Visit: 13.03.2026 & 14.03.2026

Places Visited: 1. Wonderla Amusement Park – Power Plant, Kochi, Kerala.

2. Masco Tea Factory, Vagamon, Kerala.

Industrial Visit Objectives:

- To understand the working principles of power generation and distribution systems in amusement parks.
- To study industrial automation, safety mechanisms, and energy management practices.
- To gain knowledge about tea processing techniques and industrial machinery used in manufacturing.
- To bridge the gap between theoretical learning and industrial applications.
- To enhance students' technical skills, teamwork, and professional awareness.

Outcomes of the Visit:

- Students gained practical knowledge of electrical systems used in large-scale operations.
- Improved understanding of industrial safety standards and maintenance practices.
- Exposure to real-time automation and control systems.
- Awareness of interdisciplinary applications of electrical engineering in different industries.

Description:

The Department of Electrical and Electronics Engineering organized a two-day industrial visit on 13th and 14th March 2026 for 68 students from I Year and III Year, accompanied by 5 faculty members. The visit aimed to provide practical exposure to industrial operations and enhance students' understanding of real-time engineering applications. On the first day, students visited the power plant section of Wonderla Amusement Park in Kochi. The visit provided valuable insights into the electrical infrastructure required to operate large-scale amusement rides. Students observed the functioning of diesel generator sets, transformers, distribution panels, and control systems that ensure a reliable and continuous power supply. The technical staff explained how electrical loads are managed efficiently across different rides and how backup systems automatically take over during power interruptions. The importance of safety mechanisms such as protective relays, circuit breakers, and grounding systems was also demonstrated. Additionally, students gained exposure to automated control systems used for ride operations, highlighting the role of electrical engineering in ensuring safety, precision, and efficiency.

On the second day, students visited the Masco Tea Factory in Vagamon, where they learned about the complete tea production process. The visit covered all stages, including withering, rolling, fermentation, drying, grading, and packaging. Students observed various industrial machines such as conveyors, rolling machines, dryers, and sorting equipment. The role of motors, temperature control systems, and electrical drives in maintaining consistent production quality was explained. The factory personnel also emphasized quality control procedures, hygiene standards, and efficient resource management practices followed in the industry.

Overall, the industrial visit provided a comprehensive learning experience by exposing students to both power systems in entertainment industries and process-based manufacturing in agro-industries. It helped students connect theoretical knowledge with practical applications, thereby enhancing their technical competence and industrial awareness.

Industrial Visit Photos:

Programme Name: CSIR Sponsored Two Days National Level Seminar on "Empowering India's EV Revolution: Sustainable Technologies and Policy Directions for Seamless Grid Integration"

Date: 19.03.2026 to 20.03.2026 (2 Day)

Venue: C Block Seminar Hall

Resource Persons: 1. Dr. S. Albert Alexander
Associate Professor, VIT University, Vellore
2. Dr. N. S. Raghavendra Rao
Senior Engineer, Intertek India Pvt. Ltd., Bengaluru
3. Dr. R. Manikandan
Manager, Albonair India Pvt. Ltd., Chennai
4. Dr. R. Boopathi
Assistant Professor/EEE, ChettinadTech, Karur

No. of Participants: 69

Description:

The two-day CSIR-sponsored National Level Seminar on "Empowering India's EV Revolution: Sustainable Technologies and Policy Directions for Seamless Grid Integration," organized by the Department of Electrical and Electronics Engineering at Chettinad College of Engineering and Technology, Karur, on 19th and 20th March 2026, successfully brought together experts, academicians, and participants to discuss advancements in electric vehicle (EV) technologies and their integration with modern power systems. The seminar commenced with an inaugural function led by Dr. S. Albert Alexander of VIT University, Vellore, who emphasized the significance of EVs, smart grids, and sustainable energy solutions, while the Principal, Dr. A. Punitha, encouraged active participation and knowledge sharing.

The technical sessions covered a wide spectrum of topics, beginning with Dr. Alexander's comprehensive insights into EV classifications, battery technologies, Vehicle-to-Grid (V2G) systems, policy frameworks, and socio-economic considerations for equitable EV adoption.

The second session by Dr. N. S. Raghavendra Rao focused on grid modernization, power management strategies, industry standards, and sustainable business models such as charging-as-a-service and battery swapping, highlighting practical challenges in EV deployment.

On the second day, Dr. R. Manikandan discussed consumer behavior, market transformation, global best practices, public transport electrification, environmental sustainability, and circular economy approaches, while also identifying key research priorities for India's EV ecosystem.

The final session by Dr. R. Boopathi emphasized the role of power electronics in ensuring grid stability and power quality, addressing issues such as harmonics, voltage fluctuations, and load demand through advanced solutions like smart converters, active filters, and coordinated charging.

The seminar concluded with a valedictory function where achievements were highlighted, certificates were distributed, and participants expressed positive feedback on the knowledge gained. Overall, the seminar provided a comprehensive platform for understanding technological innovations, policy directions, industry practices, and research opportunities essential for advancing India's EV revolution and achieving sustainable, efficient grid integration.

Event Photos:

CSIR-INDIA
सीएसआईआर
CSIR
भारत का नवाचार इंजन
The Innovation Engine of India

Programme Name: ELECTRA - EEE Association Logo Reveal

Date: 19.03.2026

Venue: C Block Seminar Hall

Chief Guest: Dr. S. Albert Alexander, Associate Professor from the School of Electrical and Electronics Engineering, VIT University

Description:

The Department of Electrical and Electronics Engineering proudly marked a significant milestone with the successful unveiling of the ELECTRA - EEE Association Logo and Official Promo Reveal Video on 19th March 2026. This momentous occasion symbolized the spirit of innovation, unity, and technological excellence that defines ELECTRA. The event was graced by our esteemed reveal chief guests, Dr. S. Albert Alexander, Associate Professor from the School of Electrical and Electronics Engineering, VIT University, Vellore, and Dr. A. Punitha, Principal of Chettinad College of Engineering and Technology, Karur. Their presence added great value to the occasion, inspiring students and faculty with their insightful thoughts and encouragement.

The newly revealed ELECTRA logo, creatively designed by Mr. M. Vasanthprakash, AP/EEE, stands as a powerful representation of energy, innovation, and the forward-thinking vision of the EEE community. The official video beautifully captured the association's mission, achievements, and future aspirations, showcasing the excellence and unity within the department. The event witnessed enthusiastic participation from students, faculty members, and guests, making it a vibrant and memorable celebration. It marks the beginning of a new chapter filled with technical excellence, collaboration, and innovation under the ELECTRA banner. With this launch, ELECTRA embarks on an inspiring journey to empower future engineers, foster creativity, and drive technological advancements in Electrical and Electronics Engineering.

ELECTRA Association Logo

Programme Name: Technical Activity on "Troubleshoot IoT"

Target Group: III Year B.E. Electrical and Electronics Engineering (EEE) Students

Date: 02.04.2026

Activity Incharge: Dr. R. Boopathi, AP/EEE

Venue: EEE Computer Lab(G04)

Description:

On April 2nd, 2026, a technical activity was conducted on the topic "Troubleshoot IoT." The main objective of this activity was to train students in identifying, analyzing, and rectifying faults in IoT-based systems.

During the session, students:

- ✓ Checked sensor faults such as soil moisture, temperature, and humidity sensor errors.
- ✓ Diagnosed wiring and power supply issues in IoT circuits.
- ✓ Troubleshot Arduino / ESP8266 programming errors.
- ✓ Solved Wi-Fi and cloud platform connectivity issues.
- ✓ Tested data transmission between devices and dashboards.
- ✓ Worked in teams to restore faulty IoT systems successfully.

Activity Photos:

Programme Name: Technical Activity on “Amrita Vishwa Vidyapeetham Virtual Lab(Anderson’s Bridge)”

Target Group: II Year B.E. Electrical and Electronics Engineering (EEE) Students

Date: 21.04.2026

Activity Incharge: Mr. M. Vasanthprakash, AP/EEE

Venue: EEE Computer Lab(G04)

Description:

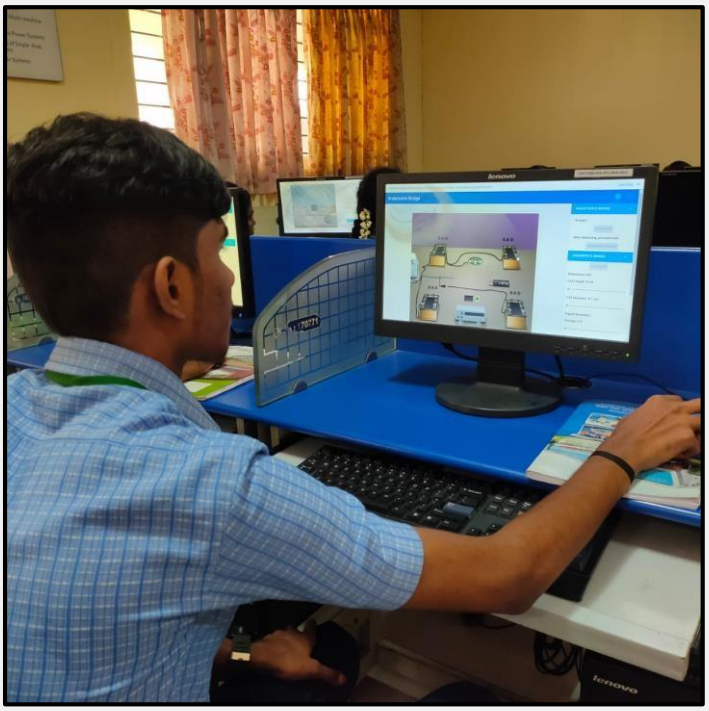
On April 21st, 2026, an interactive virtual lab session was conducted for 2nd year EEE students using the Amrita Virtual Lab platform. The primary objective of this activity was to provide hands-on exposure to the "Anderson’s Bridge" experiment in a simulated environment. This activity helped students understand to determine the self-inductance of the coil (L) and calculate the value of inductive reactance (X_L) of the coil at a particular frequency.

The "Anderson’s Bridge" experiment provided a clear visualization of how capacitance varies under bridge balance conditions. Students actively engaged with the simulation, demonstrating curiosity and critical thinking while performing the experiment. The virtual interface was user-friendly, allowing students to explore various parameters and understand the underlying concepts at their own pace.

Through the virtual simulation, students were able to:

- Observe and record how capacitance varies with different connections of standard capacitance.
- Analyze the behavior of conductors and semiconductors under the capacitive reactance Xc.
- Calculate the unknown capacitance using simulated readings and graphs.

Activity Photos:



Programme Name: Batch 15 – Farewell Function

Organizing Department: Electrical and Electronics Engineering

Date: 30.04.2026

Venue: G Block Seminar Hall

Description:

The Department of Electrical and Electronics Engineering of Chettinad College of Engineering and Technology organized a heartfelt Farewell Function for the outgoing final year students (Batch 15) on 30th April 2026 at the G Block Seminar Hall. The event was gracefully organized by the III Year EEE students along with the department faculty members to honor the seniors and celebrate their memorable academic journey. Function commenced with a warm welcome address, followed by inspiring speeches from faculty members who shared their valuable thoughts, encouragement, and best wishes for the graduating students.

The juniors expressed their gratitude and admiration towards their seniors through heartfelt speeches, cultural performances, fun activities, and memorable presentations that reflected the strong bond shared within the department. The farewell event created a joyful and emotional atmosphere as students recollected their experiences, achievements, friendships, and memorable moments spent in the department. Various entertaining games and interactive sessions added enthusiasm and excitement to the celebration.

The final-year students shared their experiences and conveyed their sincere thanks to the faculty members and juniors for organizing the event. The program concluded with the exchange of wishes, group photographs, and a vote of thanks, making the farewell function a memorable occasion for everyone present. The Department of Electrical and Electronics Engineering Wishes Batch 15 great success and a bright future in all their endeavors.