ENLIGHT

Newsletter Volume-4,Issue-1

Department of Electrical and Electronics Engineering

COLLEGE OF ENGINEERING MUTTATHARA

CAPE-GOVT.OF KERALA

VISION

Develop socially and globally competent Electrical Engineers who can build new futuristic world to provide scientific growth and innovative ideas for the betterment of human race.

MISSION

M1. To motivate students for life-long learning thus by professional growth with a solid foundation in Electrical and Electronics Engineering.

M2. To empower young minds to adapt effective solutions for the technological issues in industries through research activities.

M3. To mould the students with professional ethics and societal value.

OUR DEPARTMENT

The Department of Electrical and Electronics Engineering was established in the year 2016 with a sanctioned intake of 60. The department strongly believes in working towards a goal to make the students from engineer to skilled professional. The department is a center of erudition, where we nurture young talents using new-age information and computer-intensive technologies.

Experienced faculty members and skilled technical staff focus on delivering strong fundamentals, hands-on training, and professional competence. The department emphasizes curiosity, innovation, and adaptability, enabling students to respond effectively to rapidly evolving industry demands. Graduates are equipped with solid core knowledge and essential professional skills to meet future technological challenges, particularly in renewable energy systems, hybrid and electric vehicles, energy storage, and energy-efficient lighting, motors, and appliances, contributing to a cleaner and sustainable energy ecosystem.

ABOUT VIDHYUTH

Electrical and Electronics Engineering Students Association Vidhyuth was formed in the year 2018. Vidhyuth organizes many activities, such as, organizing guest lectures, Workshops industrial visits co-curricular events, etc. throughout the year .Vidhyuth released our first Newsletter on 2022.Each year an executive committee will be selected from students. The committee will coordinate all activity of the association.

Inauguration of Association Activities 2025 -2026

The Association of Electrical and Electronics Engineering, Vidhyuth, inaugurated its activities for the academic year 2025–26 on 6 February 2025 at the Seminar Hall, College of Engineering Muttathara.

The programme commenced with a welcome address by the Association in-charge, **Salini M. Venugopal**, followed by the presidential address by the Head of the Department, **Dr. C. Sreekanth.** The event was formally inaugurated by the chief guest, **Dr. Ajith Gopi**, Additional Chief Technical Manager, ANERT, Government of Kerala.

The introduction of the new office bearers was followed by a talk by the chief guest. In his address, he highlighted the importance of integrating renewable energy into everyday life, while insights from his experience in renewable energy projects.

The inauguration marked a meaningful start to the association's activities, setting a sustainability-focused direction for the year ahead.

Inaugural Activities

As part of the association inauguration, a poster-making competition titled "**Tech Odyssey**" was organized. The competition provided students with an opportunity to express their creativity and technical ideas through visual presentation. Participants designed innovative posters related to technology and current advancements, making the event both creative and informative.

A quiz competition named "**Tech Nova**" was also conducted as part of the inauguration. The event tested the participants' knowledge in the field of science and technology.

It was an engaging and intellectually stimulating competition that encouraged students to think critically and expand their technical awareness.

Beyond circuits : 1st year students Orientation Session

The First Year Orientation Programme for the academic year was conducted on 14 August 2025, to welcome the newly admitted students.

The programme began with a welcoming and visionary address by the Head of the Department, **Dr. C. Sreekanth,** who emphasized the importance of academic excellence, discipline, and the broader purpose of engineering education. This was followed by sessions from various faculty members who shared important academic guidelines, departmental practices, and insights about the curriculum.

The programme also included a presentation by the Association President, **Rabiathul Adawia R**, who spoke about the vision and mission of the department and shared her personal experiences, encouraging students to actively engage in academic and association activities.

The orientation concluded with interactive games and activities organized by senior students, helping to ease the newcomers' apprehensions and create a friendly and inclusive environment.

Real time learning

Industrial Visit at KSEB Meenmutty

An industrial visit was conducted on 04-03-2025 to the **Lower Meenmutty Small Hydroelectric Project (SHEP)** in the Vamanapuram basin, Thiruvananthapuram, Kerala, providing students with exposure to small hydro power generation and plant operations. The 3.5 MW run-of-river hydroelectric project, commissioned on 25-03-2006, consists of two 1.5 MW units and one 0.5 MW unit with an annual generation of 7.63 MU. Students learned about the S-type horizontal shaft Kaplan turbines, synchronous generators, and the 11 kV power evacuation system through the Meenmutty feeder, along with turbine-generator coordination, protection systems, and grid integration. The visit helped bridge the gap between theory and practice, enhancing students' understanding of renewable energy systems and small hydro power generation.

Industrial visit at Kakkadu Power station

The Department, organized an industrial visit to **Kakkad Power Station** on 27 January for students of the first, second, and fourth years. A total of 36 students, accompanied by three faculty members, participated in the one-day visit. The program aimed to provide students with practical exposure to power generation and distribution systems and to bridge the gap between theoretical knowledge and industrial practice.

During the visit, students were introduced to the working principles of generators, transformers, and power distribution systems.
The officials explained the operational procedures, control room monitoring, and important safety mechanisms such as protective relays and circuit breakers.
The visit offered valuable industrial exposure and helped students better understand the real-world applications of electrical engineering concepts.

Familiarisation of EV Charging station

Understanding the practical aspects of electric vehicle infrastructure is essential for engineering students. As part of this, a program titled “Grid to Vehicle – A Real Time Familiarisation on EV Charging Station” was conducted at the EV Charging Station, C.E. Muttathara on 10/02/2026.

The session was led by **Mr. Muhammad Jaleel**, E-Mobility Coordinator, ANERT. The program focused on the working and process of an EV charging station and explained how power is transferred from the grid to the vehicle.

Students were given a real-time demonstration and were able to observe the internal parts of the charging unit, including its main components and control systems. The session helped in gaining practical knowledge about EV charging technology.

Hands-on Workshop

LT Spice

A one-day hands-on workshop on LTSpice was conducted for the students of the Department of Electrical and Electronics Engineering. The session was handled by **Sidharth Raj** and **Sam T. Shajan**, who introduced the participants to the basics of LTSpice, including circuit simulation and its practical applications. They guided the students through simple examples and demonstrated how simulation tools are used in real-world electronic circuit design.

The workshop was held on 24/09/2025 and was specially organized for first year and second year students to help them understand simulation tools used in electronics.

The program was formally inaugurated by the Head of the Department, **Dr. C. Sreekanth**, who encouraged students to participate in such technical workshops to improve their practical knowledge and technical skills.

Electrical Wiring Practices

A hands-on workshop on electrical wiring was conducted by **Salu DS** (Lab Coordinator), along with **Asst. Prof Shyju Khalid**. The session focused on practical training in basic wiring techniques, safety procedures, and the proper use of electrical tools and components. Participants were guided through the process of identifying wires, connecting switches, sockets, and circuits, and understanding common wiring layouts used in household installations.

Under the supervision of the instructors, students performed the wiring tasks themselves, gaining direct experience in assembling and testing simple electrical circuits. The workshop emphasized safe handling practices, correct connections, and troubleshooting basic issues.

The session helped participants strengthen their practical skills and reinforced theoretical knowledge by applying it in a real laboratory setting.

Expert Talks

Pathway To Professional Success

The Department of Electrical and Electronics Engineering, in association with the Vidhyuth Association and EPIC Association of the Department of Electronics and Communication Engineering, organized a Career Meet titled **"Nature's Power Tool for Engineers."** The session was led by Smt. Jaya G. Nair, Computer Scientist and Former Engineer at ISRO.

The program was an insightful and interactive session where the speaker shared her professional experiences and encouraged students to explore innovative ideas inspired by nature in engineering. The session also provided valuable guidance on career opportunities and motivated students to approach engineering with creativity and curiosity.

Analog Electronics Circuit Building

An Analog Electronics Circuit Building Program was conducted and the section was handled by aluminus of CEM **Ashwanth Sajeev** to introduce students to building analog electronic circuits for real-world applications. The session helped students understand practical circuit construction, component usage, and basic troubleshooting techniques. It was an informative and interactive program that enhanced students' practical knowledge in analog electronics.

National Symposium on Energy & Environment-2025

The National Symposium on Green Hydrogen for a Sustainable Future" was successfully conducted on 5th and 6th December 2025. The symposium aimed to create awareness and technical understanding of green hydrogen technologies, policy frameworks, industrial applications, and research advancements, aligning with India s National Green Hydrogen Mission and Kerala's renewable energy goals. The symposium was co-sponsored by Kerala State Council for Science, Technology and Environment (KSCSTE) and Agency for Non-conventional Energy and Rural Technology (ANERT), Govt. of Kerala. The symposium also received professional and institutional support from IEEE Power & Energy Society (PES), Kerala Chapter Centre for Energy Studies (CES) Additional Skill Acquisition Programme (ASAP), Kerala and ARCITE – School of Technical Education. The Industrial partners for the symposium were Swagelok Bangalore, Wattsun Energy India Pvt. Ltd and Adithya APN Solar Energy. The official media partner for the symposium was Asianet News

The symposium was formally inaugurated by **Sri. K. R. Jyothilal,** IAS, Additional Chief Secretary, Finance Department, Government of Kerala, who delivered the Inaugural Address stressing the strategic importance of green hydrogen for Kerala and India. **Sri. Harshil R. Meena**, IAS, CEO, ANERT, Govt. of Kerala and Sri. Sujit Pillai, Scientist (F), Ministry of New and Renewable Energy (MNRE), Govt. of India have delivered the special addresses. The keynote address was delivered by **Dr. Ranjith Krishna Pai**, Senior Director & Scientist, Department of Science & Technology (DST), Govt. of India.

Eminent personalities from various esteemed Organizations and Institutions have been invited and their plenary presentations during the two day seminar were truly informative and beneficial to the delegates. The symposium concluded with a Valedictory Function on the second day summarising key outcomes and learnings from the two-day event. The Participants appreciated the comprehensive coverage of policy, technology, industry, and research perspectives in the Symposium during their feedback on the event. **Dr.P.V Aravind**, Professor, University of Groningen, The Netherlands was the Chief Guest and **Mr.Premkumar K**, Scientist-F, ANERT, Govt. of Kerala was the Guest of Honour for the function.

Memorandum of Understanding (MoU)

A Memorandum of Understanding (MoU) has been signed with Arcite School of Technical Education to strengthen academic–industry collaboration. This partnership will provide opportunities for skill development, training, and joint projects, helping bridge the gap between theoretical learning and practical application.

Achievements

The Department's team, led by **Rabiathul Adawia R**, won **First Place** in the 2025 Home Energy Audit Presentation Competition. Supported by CET, APJ Abdul Kalam Technological University, and EMC Kerala, the team excelled in delivering technical, practical solutions for energy conservation. This victory underscores the department's focus on academic excellence and socially relevant engineering.

The Department congratulates **Sam T Shajan** (S3, EEE) for securing 4th Place at the State-Level PromptSphere Competition (La Guerre 3.0). Held on August 29, 2025, and organized by IEEE IAS SBCs (ASIET, GECT, and NCERC), the event recognized Sam's exceptional creativity and technical skill in prompt engineering. His success serves as an inspiration for students exploring emerging technologies.

Jinoy Jalastin (S6) has been selected for the final round of the APJ Abdul Kalam Technological University (KTU) football team trials. Out of a highly competitive field, Jinoy emerged as one of the final five players chosen. This achievement highlights his exceptional athletic skill and brings pride to the department's sporting community.

Rabiathul Adawia R (S8) has secured a stipendiary research internship at **GreenH2NxT, Bangalore**, as a Research Trainee in Renewable Energy Technologies. This role highlights their academic commitment to sustainable energy. Through this internship, Rabiathul will gain hands-on R&D experience in clean energy systems, further developing the technical and analytical skills necessary for innovation in the field.

She has also secured a placement at **Allianz Services Pvt Ltd**., for the role of Associate Customer Service. This selection by a global leader in financial services underscores the student's professional readiness and effective communication skills. The achievement marks another successful milestone for the department's placement cell in aligning students with industry-leading organizations**.**

Ajin P. Wilfred received the 2024–25 PTA Topper Award from the Principal during the first-year orientation program held on 12-08-2025. It was a proud and remarkable achievement, recognizing his academic excellence. The award stands as a testament to his hard work, dedication, and commitment to his studies.

L Irfana (S8) attended **Future Forward 2026** – Innovation Day organized by **K-DISC under Vijnana Keralam**, bringing together students, policymakers, and industry experts to explore innovation, technology, and entrepreneurship. The event featured expert sessions, live demonstrations, motivational talks, and interactive discussions, along with a policy panel and the launch of key initiatives—fostering collaboration and forward-thinking among participants.

Irfana, Jagan, and Sanio received the Best Paper Award at the International Conference on Smart Electrical Systems and Sustainable Technologies 2026 (ISEST'26), organized by the College of Engineering Perumon. Their work was recognized for its innovation and technical excellence among numerous research presentations. The work was carried out under the guidance of **Abhilash R S, Associate Professor, EEE**. This achievement highlights their dedication and reflects strong research culture and academic excellence.

Dr.C.Sreekanth, Associate Professor & HOD and Mr.Anas S R, Assistant Professor have participated in the stakeholder interaction aspart of the **Netherlands Hydrogen Innovation Mission to India 2025** organised by **The Consulate General of the Netherlands and ANERT, Govt. of Kerala** at the Bolgatty Palace in Kochi on 08-Sep-2025. This event will brought together the leading stakeholders from government, academia, and industry from Netherlands and India to explore opportunities in green hydrogen, hydrogen valley development, and clean energy innovation.

Faculty Upskilling Program

T**he Vayumitra Skill Development Programme**, a flagship initiative of the Ministry of New and Renewable Energy (MNRE) implemented by the National Institute of Wind Energy (NIWE), conducted a specialized training session in the Sivakasi-Alangulam region from February 16, 2026, to February 27, 2026.

This intensive program is designed to create a skilled workforce for the wind energy sector, focusing on the operation and maintenance of wind power plants. Representing the College of Engineering Muttathara, two esteemed faculty members, **Asst.Prof. Anas S.R.** and **Asst.Prof. Shyju Khalid**, participated in this program.

Their involvement underscores the institution's commitment to staying at the forefront of renewable energy technology and bridging the gap between academic theory and industrial practice in the growing wind energy landscape of South India.

Upskilling Initiatives

Department students **Rohith Krishna, Lakshmi S M, Arya Krishnan L R, and Ritika S Anil** attended the Skill Development Workshop on Cyber Forensics and Data Security conducted at NIT Calicut, Kerala, as part of the NIT Workshop Series – Day 1. The session provided valuable insights into cybercrime investigation, digital evidence collection, data protection techniques, and current cybersecurity threats through interactive discussions and practical examples. The participants gained useful technical knowledge and, upon successful completion of the program, were awarded certificates for their participation.

The AI Builder Bootcamp, a 1-Month AI Industry Internship Program, was organized by Lifosys in collaboration with AI Innovation Lab (aiilab.ai), in association with the Department of Computer Science, College of Engineering Muttathara. Participants **Abijith MS, Joshua Peter, Rabiathul Adawia R**, and **Vignesh J** attended the program. The program provided hands-on training in Python, Machine Learning, Full Stack AI application development, OpenAI API, and RAG implementation. It also included a hackathon with real-world AI projects and mentorship from industry engineers. Conducted in hybrid mode (onsite, online, and project phase), the internship enhanced students' practical skills and industry exposure, and participants received an Internship Certificate upon successful completion.

As part of the Keltron Workshop Series at Vazhuthacaud, several dedicated students enhanced their technical expertise through specialized skill development programs. **Abhinadh J, Midhun Biju, Adharsh Su, Nijeesh Kumar, Jobitha Saju, Athul Suresh, and Kailas S S** completed an intensive workshop on IoT, focusing on architecture, sensor integration, and real-time monitoring. Simultaneously, Anasooya and Aparna attended a session on Python, gaining proficiency in core programming concepts, data structures, and modular applications. Both groups successfully concluded their training with participation certificates, marking a significant advancement in their readiness for the evolving digital landscape.

Students from the Department of Electrical and Electronics Engineering have been selected for an internship at Agency for New and Renewable Energy Research and Technology, Thiruvananthapuram, as EV Charging Installation Technician interns. The selected students are **Jagan S, Harris Sony, Abhiram R, and Dhanush B S,** who will gain practical experience in EV charging installation and sustainable energy technologies.

Tech-fest Events

ROBOTICS WORKSHOP

A Robotics Workshop was organized to introduce students to the fundamentals and applications of robotics and automation. The workshop was conducted by **Dr. C. Agees Kumar, Dr. S. M. Dhiepthie, Dr. C. Lisha**, and **S. Sivachitharanjan** from Arunachala Technology, Nagercoil.

The session provided students with a comprehensive introduction to robotics, covering the basic components of a robot such as sensors, controllers, motors, and power systems. The resource persons explained how electrical and electronic principles are applied in designing robotic systems and demonstrated the working of simple robotic mechanisms. Students were also introduced to basic circuit connections, microcontroller-based control, and the role of programming in robotic operations.

A key highlight of the workshop was the hands-on session where students were able to observe and interact with robotic models. This practical exposure helped them understand the integration of hardware and software in robotics. The workshop encouraged students to explore innovations in automation and motivated them to pursue projects related to robotics and intelligent systems.

HOME AUDIT WORKSHOP

The department also conducted a Home Audit Workshop, led by **Rabiathul Adawia R**, which focused on energy management and conservation in residential buildings. The session aimed to create awareness among students about efficient energy utilization and the importance of monitoring electricity consumption at the household level.

During the workshop, the resource person explained the concept of energy auditing and how it can help identify unnecessary power consumption in homes. Students learned about common sources of energy wastage, methods to calculate electricity usage, and practical techniques to reduce energy consumption through better appliance usage and energy-efficient practices. The session also highlighted the importance of using energy-efficient devices and adopting sustainable habits to minimize electricity bills and environmental impact.

The workshop provided valuable insights into how electrical engineering knowledge can be applied in everyday life to promote energy conservation and sustainability.

TALK SESSION

As part of the technical fest, the Department of Electrical and Electronics Engineering organized an informative talk session on Solar Installation to create awareness about renewable energy technologies and their practical implementation. The session was delivered by **Dr. Aslam, Project Manager of Wattsun Company**.
During the session, the resource person explained the fundamentals of solar power generation, components involved in a solar installation system, and the practical aspects of installing and maintaining solar panels. The talk also highlighted the growing importance of solar energy as a sustainable and eco-friendly power source. Students gained valuable insights into the opportunities and challenges in the solar energy sector, making the session highly informative and inspiring.

KSEB EXPO

As part of the technical fest, an Expo by Kerala State Electricity Board (KSEB) was organized to provide students with insights into the functioning of the power sector and modern electrical technologies. The expo showcased various models and demonstrations related to power generation, transmission, and distribution. Officials explained the working of different electrical systems and highlighted the importance of efficient power management and safety in electrical installations. The session helped students understand real-world applications of electrical engineering and the role of KSEB in ensuring reliable electricity supply.

Electric Vehicle EXPO

An Electric Vehicle (EV) Expo was also organized to introduce students to the latest advancements in electric mobility and sustainable transportation. The expo featured several modern electric vehicles, including **Mahindra XEV 9e**, **Tata Harrier EV**, **Mahindra BE 6,** and EV models from **Montra Electric**.
The exhibition provided students with an opportunity to closely observe the design and technology behind electric vehicles, including battery systems, charging infrastructure, and motor control mechanisms. Experts explained the advantages of EV technology, its environmental benefits, and the growing role of electric vehicles in the future of transportation. The expo generated great interest among students and promoted awareness about sustainable and eco-friendly mobility solutions.

Celebrations

Toppers

GAURIKA G
S6
CGPA - 6.9

ADARSH S U
S4
CGPA - 6.7

NIKHIL M KESH
S2
CGPA - 8.38

Office bearers (2025-26)

SALINI M VENUGOPAL
FACULTY IN CHARGE

RABIATHUL ADAWIA R
PRESIDENT

SIVA ANILKUMAR
VICE-PRESIDENT

JOSHUA PETTER
SECRETARY

APARNA SP
VICE-SECRETARY

L IRFANA
TREASURER

2021-25 EEE Pass out Batch

EDITORS

LAKSHMI SM
S4

ASHWIN P
S4

We are delighted to present the newest edition of the VIDHYUTH Association Newsletter, chronicling the remarkable milestones of 2025-2026 while setting the stage for the exciting opportunities of 2026-2027. This newsletter embodies the innovative energy and collaborative spirit of our Electrical and Electronics Engineering community, showcasing the outstanding achievements of our members, groundbreaking projects, and emerging trends in the field. We sincerely thank the management, faculty, staff, and students of the EEE department for their unwavering dedication, which has been pivotal in driving our success. As we reflect on our accomplishments and prepare for new ventures, let this publication be a source of pride and inspiration, celebrating the unity and excellence that define the VIDHYUTH Association