



MANGALAM COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



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NEWLY JOINED FACULTY MEMBERS

EDITORIAL BOARD

**MS. JOLLY GEORGE
ASSISTANT PROFESSOR
EEE DEPARTMENT**

**STUDENT COORDINATOR-
Mr. Abhinav P B**

VISION

To excel as a premier department in education and research, supporting our students to shape their dreams of becoming employable committed engineering professionals

MISSION

Relentlessly strive to create vibrant learning environment, provide state of the art laboratory facilities, and actively engage in research and live up to high moral and ethical standards.

PROGRAMME EDUCATIONAL OBJECTIVES

PEO 1: [Focus: Domain Knowledge and Practical Implementation Skill]: The graduates will have foundation in science, maths and management to interpret core electrical engineering subjects and ability in designing, formulating and solving experimental projects through simulation and hardware.

PEO 2: [Focus Employability, Leadership, Team Work, Communication Skills, and professional practice]: The graduate will be employable with capabilities like communication skills, working with and building teams, upholding moral and ethical values.

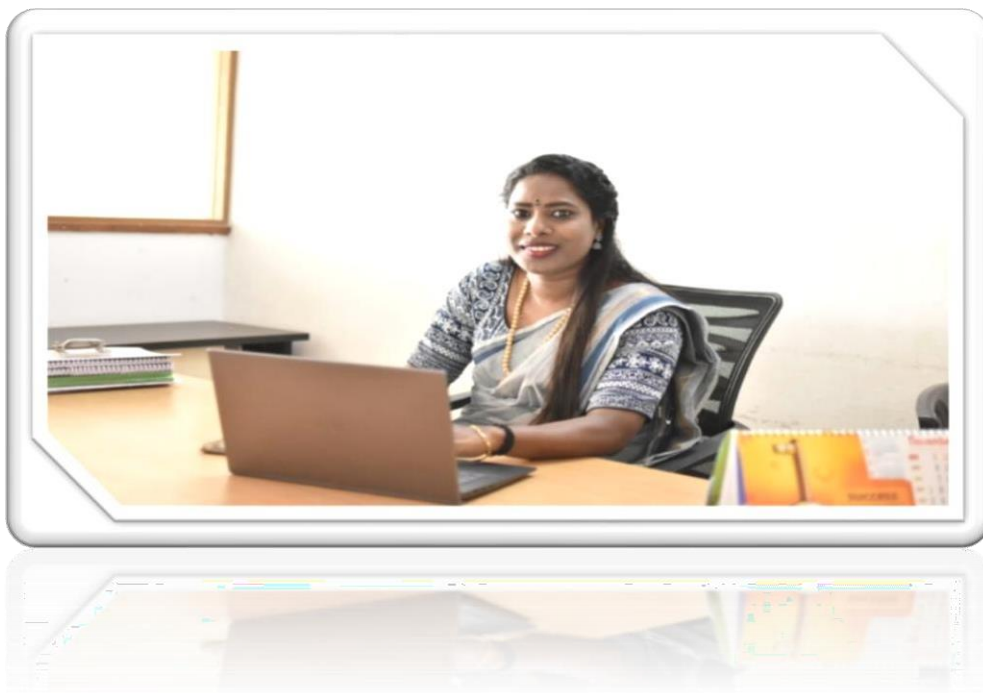
PEO 3: [Focus Life Long Learning and Higher Studies]: The graduates will be equipped for higher studies and pursue lifelong learning.

PROGRAM SPECIFIC OUTCOMES

PSO1: Apply the fundamental knowledge to identify, analyze and solve various real time problems (complex problems) in Electrical power systems which comprises of control and protection circuits, power electronic circuits, etc

PSO2: Apply emerging technologies along with modern software tools (like MATLAB, PLC, ECAD etc), for designing, simulating and analyzing electrical as well as electronic system to engage in lifelong learning.

PSO3: Able to utilize project management techniques and sustainable engineering for developing projects related to electric vehicles, smart power grids, automatic controllers, control and protection circuits, energy management and savings embedded system etc.



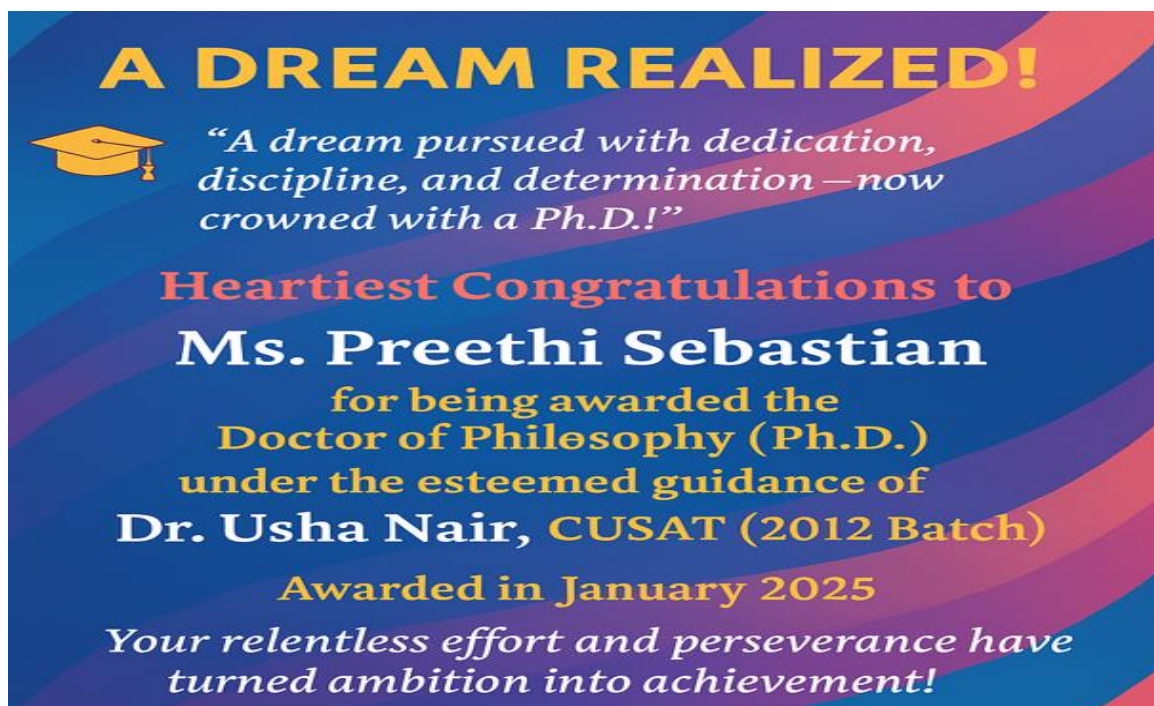
MESSAGE FROM HOD'S DESK

It gives me immense pleasure to present the Newsletter of the Department of Electrical & Electronics Engineering for the Academic Year 2024–25 (July to December). This edition highlights the vibrant academic culture, technical achievements, and active participation of our faculty and students in various professional and social spheres. Our department is committed to shaping competent electrical engineers equipped with strong theoretical foundations and practical skills essential for the modern power and energy sector, automation, control, and emerging electrical technologies. With the guidance of our experienced faculty, students are encouraged to engage deeply with core subjects like Power Systems, Electrical Machines, Power Electronics, and Control Systems, while developing hands-on proficiency through our well-equipped laboratories and project-based learning. To support holistic development, we regularly conduct technical workshops, industrial visits, seminars by industry experts, and sessions on soft skills and personality enhancement. Our students actively participate technical contests, paper presentations, and project expos at intra-college, inter-college, and university levels. In addition, we promote involvement in co-curricular and extracurricular activities, and encourage a spirit of social responsibility through NSS, student clubs, and outreach programs. These efforts help in still leadership, ethics, and a service-oriented mindset in our budding engineers. I take this opportunity to appreciate the newsletter team for their dedicated work in compiling and showcasing the department's events and milestones. Their effort reflects the vibrant spirit of our department and the collective commitment to excellence.

FACULTY ACHIEVEMENTS

PATENTS

- 1) Smart Grid Load Balancing Using AI Predictive Control and Decentralized Energy Storage Units
Application no: 202541041936 A, by Dr Honey Baby, Mr. Arun Chandrakumar K, Ms. Lekshmi Nair J, Ms. Jolly George, Ms. Sreekala V.M.
- 2) Piezoelectric-Based Energy Harvesting System for Low-Power Industrial IoT Devices, Application no: 202541041930 A, by Ms. KrishnaPriya T K, Ms. Lekshmi Nair J, Mr. Arun Chandrakumar K Ms. Sreekala V M.
- 3) AI-Optimized Modular Fast-Charging Station for Urban Electric Vehicle Infrastructure, Application no: 202541041931 A, by Ms. Krishna Priya T K, Ms. Shilpa Rajan, Ms. Aiswarya Chandran Ms. Shoma Mani.
- 4) High-Frequency Resonant Wireless Power Transfer System for Multi-Device Charging Platforms
Application no: 202541041935 A, by Ms. Lekshmi Nair J, Dr. Honey baby, Ms. Sreekala V M Ms. Jolly George.



ONE WEEK ATAL FDP

Mangalam College of Engineering's Department of Electrical and Electronics Engineering inaugurated a prestigious AICTE- sponsored One Week ATAL Faculty Development Program (FDP) on February 10, 2025, at the Digital Theatre, themed "Navigating the Energy Transition–Climate Nexus: Strategies for Greening the Grid." The event witnessed the presence of distinguished guests— Dr. Indhu P Nair (Principal, College of Engineering, Kidangoor), Dr. Biju K (Assistant Director, APJ Abdul Kalam Technological University)—who emphasized the vital role of educators in leading the shift toward sustainable energy solutions. The FDP aims to equip faculty with insights on renewable integration, smart grid technologies, climate-resilient systems, and innovative energy strategies, fostering a future-ready mindset aligned with national green energy goals.



Approved by AICTE and Directorate of Technical Education Kerala Affiliated to APJ KTU University



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

You're cordially invited to the Inauguration of

AICTE Sponsored One Week ATAL Faculty Development Program

**NAVIGATING THE ENERGY TRANSITION-
CLIMATE NEXUS: STRATEGIES FOR
GREENING THE GRID**

GUEST OF HONOUR



Dr. Indhu P Nair
Principal
College of Engineering,
Kidangoor



Dr. M V Rajesh
Principal
College of Engineering, Poonjar



Dr. Biju K
Assistant Director
APJ Abdul Kalam Technological
University

FEBRUARY | 10 | 2025

9.AM, Digital Theatre

A Brighter Tomorrow: The Spark of Solar Solutions

At Mangalam college of engineering, nestled in the heart of Kerala, a powerful movement was about to begin. The department of electrical and electronics engineering, ever committed to innovation and sustainability, had partnered with **recon – the power builder**, a leading solar energy company, to host a **one-day workshop on sustainable solar energy solutions**.

The event, set for **march 1, 2025**, wasn't just another seminar. It was a call to action. Students, engineers, and energy enthusiasts gathered with a shared goal — to build a greener future.

As the day began, sunlight streamed into the venue, symbolic of the very energy the participants came to explore. Experts from recon introduced participants to the latest in **on grid, off grid, and hybrid solar technologies**. Panels, water heaters, pumps, inverters, and even air conditioners powered by the sun were on display. Every demonstration lit a spark in the minds of future engineers.

The workshop emphasized real-world applications, with recon showcasing how **nature's power** could be harnessed efficiently and affordably. "This is not just technology," said one of the trainers, "it's a revolution in how we live."

The poster is for a workshop at Mangalam College of Engineering. At the top, it lists the college's name and logos for AICTE, NAAC, NBA, and KIRF. Below this, it states the department is 'Approved by AICTE and Directorate of Technical Education Kerala' and 'Affiliated to APJ KTU University'. The main title is 'DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING' followed by 'ONE DAY WORKSHOP ON SUSTAINABLE SOLAR ENERGY SOLUTIONS'. It mentions the workshop is 'IN ASSOCIATION WITH RECON THE POWER BUILDER'. A section describes Recon as the 'Best Solar Power Panel Installation Company in Kerala' and offers a 'Nature's Solution For Future Energy'. It includes a 'Registration Fee Rs : 100' and a QR code to 'Scan & Pay'. At the bottom, it provides the date 'Date : 01-03-2025' and venue 'Venue : MANGALAM COLLEGE OF ENGINEERING'. Small images show solar panels, a water heater, and a pump.

MANGALAM
COLLEGE OF ENGINEERING
Inspire | Imbibe | Innovate
Approved by AICTE and Directorate of Technical Education Kerala | Affiliated to APJ KTU University

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ONE DAY WORKSHOP ON SUSTAINABLE SOLAR ENERGY SOLUTIONS

IN ASSOCIATION WITH RECON THE POWER BUILDER

Best Solar Power Panel Installation Company in Kerala
Nature's Solution For Future Energy
Registration Fee
Rs : 100

Recon Energy would be a new platform for being trained in Solar Technology. Training session will take you through the arena of solar related equipments working and operating methods of On Grid, Off Grid and hybrid solar plants, Water heaters, Pumps, Lights, Air conditioners, Inverters, and so on...

Date : 01-03-2025 - Venue : MANGALAM COLLEGE OF ENGINEERING

“EMPOWERING LEARNING THROUGH INNOVATION: A CREATION BY EEE STUDENTS”

Abin Chacko and Adhiyan S of S6 EEE, Mangalam College of Engineering, have successfully developed a simple Series-Parallel Circuit Kit under the guidance of Ms. Silpanjali Gopal (Assistant Professor) and with the support of Dr. Honey Baby (HoD, EEE). The kit was handed over to Instrumentation students Ajimon C M and Adarsh B of Government Polytechnic College, Pala, in the presence of HoD Smitha V and lab staff members Sunil Kumar, Krishnarchana, Krishna Kumar, James Joseph, and Amal. This initiative highlights the spirit of student-faculty collaboration and promotes practical learning beyond the classroom.



“SERVICE ALONG WITH LEARNING: A MODEL INITIATIVE BY MANGALAM COLLEGE”

The **Department of Electrical and Electronics Engineering (EEE)** of **Mangalam College of Engineering, Ettumanoor**, carried out a remarkable community service activity by visiting **Rahmath Al Islam Juma Masjid, Kanjirappally**, where students **donated electrical equipment** and **undertook maintenance work** of the mosque’s electrical systems.

The initiative was successfully executed by **S5 EEE students** — **Aadil Aji, Jayakrishnan M.S., Ashwin Sabu, Arjun R. Nair, and Faseela M.B.**

The students handed over and installed lights, fans, and other electrical appliances at the mosque. The activity turned out to be a **meaningful learning experience combined with social responsibility**.

The maintenance and installation works were carried out under the **supervision of Dr. Honey Baby (Head of the EEE Department)** and **Assistant Professor Shilpaanjali Gopal**. All safety and educational guidelines were meticulously followed to ensure quality and compliance.

This visit was organized by the EEE Department as part of the **practical component of the curriculum** and also as a **social outreach initiative**. The experience offered students valuable real-world exposure and an opportunity to understand and respond to the needs of society.



INTERNATIONAL CONFERENCE

Mangalam College of Engineering Hosts Second International Conference on Smart Innovations in Electrical Engineering

Mangalam College of Engineering's Department of Electrical and Electronics Engineering is set to host the Second International Conference on Smart Innovations in Electrical Engineering on May 27th and 28th, 2025, at the Digital Theatre. This prestigious event aims to bring together experts, researchers, and students from around the world to share their knowledge and insights on the latest developments and advancements in the field of electrical engineering.

The conference will feature keynote addresses by renowned experts, including Dr. Manoj Kumar Nallapaneni, Professor at City University of Hong Kong - School of Energy and Environment, and Dr. Biju K, Assistant Director at APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala. Adv. K Francis George, Hon. Member of Parliament, Kottayam, Kerala, will be the Chief Guest, adding a touch of dignity and importance to the event.

The conference will cover a wide range of topics related to smart innovations in electrical engineering, including but not limited to:

- Smart Grids: The conference will explore the latest developments in smart grid technology, including advanced metering infrastructure, grid management systems, and renewable energy integration.
- Renewable Energy: The conference will discuss the latest trends and innovations in renewable energy, including solar, wind, hydro, and geothermal energy.
- Energy Efficiency: The conference will focus on energy-efficient technologies and strategies, including building automation systems, energy-efficient lighting, and power management systems.
- Power Electronics: The conference will cover the latest advancements in power electronics, including power converters, motor drives, and power quality improvement.

The conference will also feature paper presentations, poster sessions, and exhibitions by leading companies in the field of electrical engineering. This will provide a platform for researchers and industry professionals to share their work, exchange ideas, and network with each other.



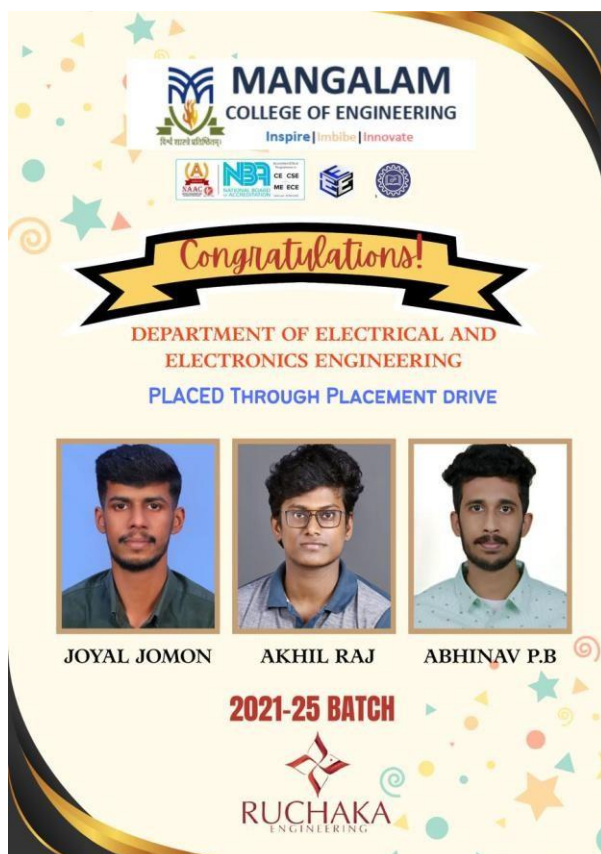
PLACEMENTS

Proud Placements from the Department of Electrical and Electronics Engineering

We are thrilled to announce the successful placement of three outstanding final-year students from the Department of Electrical and Electronics Engineering (EEE) at Mangalam College of Engineering. As part of the 2021–2025 batch, **Joyal Jomon**, **Akhil Raj**, and **Abhinav P.B** have secured placements through a campus placement drive conducted by **Ruchaka Engineering**.

Their achievement reflects the department's strong focus on industry-oriented training, hands-on learning, and career readiness. This success also highlights the continuous support and guidance provided by the placement cell and faculty members in preparing students for real-world challenges.

We extend our heartfelt congratulations to these budding engineers and wish them continued success as they embark on their professional journeys.



CLASS TOPPERS

KTU S8 Examination Toppers – 2021-25 Batch

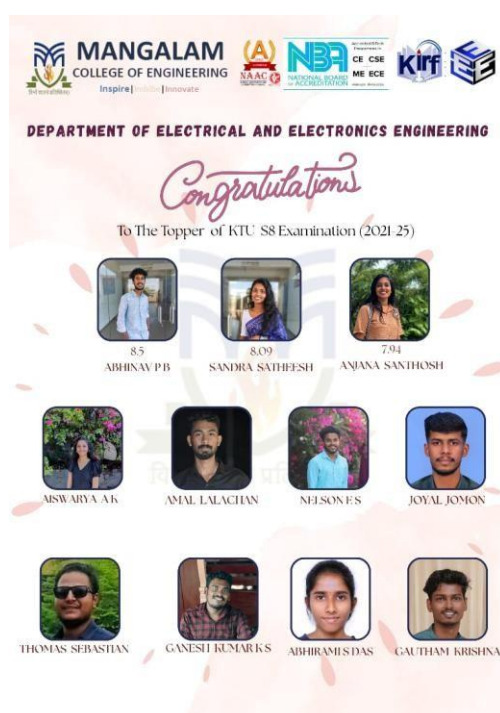
The Department of Electrical and Electronics Engineering at Mangalam College of Engineering proudly congratulates the academic achievers of the KTU Semester 8 Examination (2021–2025 batch). Leading the department with excellence are:

- Abhinav P B – SGPA: 8.5
- Sandra Satheesh – SGPA: 8.09
- Anjana Santhosh – SGPA: 7.94

These students have demonstrated unwavering commitment, strong technical skills, and consistent performance throughout their academic journey.

We also extend our appreciation to other meritorious students—Aiswarya A K, Amal Lalachian, Nelson F S, Joyal Jomon, Thomas Sebastian, Ganesh Kumar S, Abhirami S Das, and Gautham Krishna—for their dedication and achievements. Their success is a reflection of the department's quality teaching, rigorous curriculum, and a supportive academic environment. The faculty and management applaud their efforts and wish them all the best for their future endeavors.

Let their success inspire the upcoming batches to strive for academic and professional excellence.



FAREWELL

On March 28, 2024, the Department of Electrical and Electronics Engineering at Mangalam College of Engineering, Ettumanoor, hosted a heartfelt farewell ceremony to honor the graduating 2021–2025 batch. Held at the Mechanical Seminar Hall, the event was a beautiful blend of emotions, memories, and celebrations. With the theme “Every new beginning comes from some other beginning’s end,” the program captured the spirit of transition—of bidding goodbye to years filled with learning, growth, and friendship. Faculty members and juniors came together to express their admiration and appreciation for the outgoing students, who have left a lasting impression through their achievements and camaraderie.

The evening featured speeches, cultural performances, and tokens of remembrance that reflected the strong bond shared within the department. As laughter and nostalgia filled the air, the farewell served not as a goodbye, but as a reminder of the exciting journeys that lie ahead.

The Department wishes the 2021–2025 batch every success as they move forward to shape the future with the knowledge and values nurtured at Mangalam.



- *Arts Fest-Saptharang 2K25*

Saptharang 2K25 – A Grand Celebration of Art and Culture

Saptharang 2K25, the annual Arts Fest of **Mangalam College of Engineering**, unfolded as a magnificent celebration of creativity, culture, and student talent. This much-awaited event brought the campus alive with vibrant performances, colorful displays, and a spirit of artistic unity.

The fest was inaugurated by **Sri. T R Reghunathan**, CPI(M) District Secretary, Kottayam, who emphasized the importance of art in shaping young minds. The presence of **Anju Joseph**, renowned playback singer, as Guest of Honor added charm and inspiration to the event. Her words encouraged students to express themselves freely and passionately through art.

Students from various departments participated enthusiastically in competitions ranging from music, dance, and drama to literary and fine arts. Every corner of the campus echoed with energy, talent, and cultural expression. The performances were not only a showcase of talent but also a testament to the teamwork and dedication of the participants.

Saptharang 2K25 served as a perfect platform for students to explore their creative potential, foster friendships, and celebrate the diversity of our college community. The event concluded with cherished memories, artistic accomplishments, and a renewed appreciation for the role of culture in education.



NEWLY JOINED FACULTY MEMBERS



Ms. ASWATHY MARIAM MOHAN



Ms. SHILPANJALI GOPAL