

Autonomous Institution, Affiliated to Anna University, Chennai Approved by the AICTE, Accredited by NAAC

VIDYUT

# NEWSLETTER JANUARY 2025 VOLUME III - ISSUE I







# NEWSLETTER EDITORIAL TEAM Department of Electrical and Electronics Engineering







Dr. K R. Santha Professor & Head

Dr. Sudhakar K Bharatan Dr. R Karthikeyan Professor Professor



Ms. S. Sinthamani Assistant Professor



Mr. N. Saravanan Assistant Professor

### **NEWSLETTER EDITORIAL TEAM**



Ms. T. Kavinaya Sree IV Year



Ms. G.T.Kanishkha IV Year



Ms. B. Pavithra III Year



Mr. L. Hritish Calvin III Year



Mr. W. Sherwin Bino III Year

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#### **ABOUT THE DEPARTMENT**

#### Welcome to the Department of Electrical & Electronics Engineering (EEE)

Established in 1985, the department was created to address the curriculum requirements of Electrical engineering subjects within Electronics and Communication Engineering, Mechanical Engineering, and Computer Science Engineering. The Undergraduate program was started in 1994 with an intake of 60 students. Addressing the growing demand for EEE UG program, the intake was later increased to 120 students.

The department holds permanent affiliation with Anna University and has been accredited by the National Board of Accreditation (NBA) since 2002. Additionally, it offers a postgraduate program (M.E) in Power Electronics and Drives since 2002, with an intake capacity of 6 students. Equipped with state-of-the-art laboratories, the department is recognized as a nodal research center by Anna University. Its faculty and staff members are highly qualified and experienced, possessing proven abilities and skills.

Graduates of the department have been successfully placed in renowned companies, while a significant number pursue advanced studies abroad. The Department goes beyond the curriculum to nurture young minds by fostering technical clubs that promote technical events, community development, societal impact, and programs on universal values and ethics.

In line with this commitment, the Department of Electrical & Electronics Engineering has established the Institute of Electrical and Electronics Engineers (IEEE) and the Association of Electrical and Electronics Engineers (AEEE) to support students' innovations.

### **EEE – WE LIGHT THE WORLD**

### VISION AND MISSION OF THE INSTITUITION AND DEPARTMENT

#### Vision of the Institution

To gain acclaim as an institution of eminence on a national and global scale, through the contributions and accomplishments of the individuals, nurtured by the facilities and support.

#### **Mission of the Institution**

**M1.** To establish a motivational framework through provision of infrastructure and resources that actively engages the individuals in core activities of learning, education, research and innovation

**M2.** To advance the competency of the individuals to comprehend the requirements of the society and fulfill them, through honing of their skills and virtues.

**M3.** To leverage institutional experiential learning to address engineering and technological challenges on national and global scales.

#### Vision of the Department

To become a premier Department in Electrical and Electronics Engineering through quality education, research and innovation, to address contemporary societal challenges with cutting-edge technologies.

#### **Mission of the Department**

**M1:** To periodically upgrade the facilities and resources such that the students excel in Electrical and Electronics Engineering education.

**M2:** To equip students with a well-defined domain specific curriculum thereby achieve industry standards and sustainable development of the society.

**M3:** To promote a culture of research, innovation, and entrepreneurship through collaborative learning in the thrust and allied areas of Electrical and Electronics Engineering.

**M4:** To inculcate soft skills, foster ethical values and shape the total personality of the students.

### PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES – UG(EEE)

#### **Program Educational Objectives (PEOs) UG-EEE**

**PEO1:** Graduates will serve as engineering contributors in the emerging fields of Electrical, Electronics and Computer Engineering.

**PEO2:** Graduates will become entrepreneurs through human centered design thinking and innovation.

**PEO3:** Graduates will be successful in pursuing higher studies in engineering or management.

**PEO4:** Graduates will be effective and ethical team player in the field of green energy management and sustainability.

### **Program Outcomes (POs) for UG-EEE**

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

### PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES – UG(EEE)

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and lead.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

#### **Program Specific Outcomes (PSOs)**

**PSO1:** The ability to build, implement, test and maintain analog and/or digital systems and implement electronic control of Drives for Industrial automation and Electric Vehicle.

**PSO2:** The ability to analyze Power System network encompassing stability, control and protection and interconnection of Renewable Energy Sources with Micro and smart grid.

### PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES – PG(EEE)

#### **Program Educational Objectives for PG Program (PEOs)**

I. Contribute professionally in fields of Power Electronic and related domains.

II. Manage and execute research and development projects leading to technological solutions that address industries and society.

III. Succeed in pursuing higher studies in engineering domains.

### **Program Outcomes (POs) for PG-PED**

**PO1:** An ability to independently carry out research/investigation and development work to solve practical problems.

**PO2:** An ability to write and present a substantial technical report/ document.

**PO3:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

### **Program Specific Outcomes (PSOs) for PG-PED**

**PSO1:** The ability to design and analyze Power Electronic converters and control of Electric drives for Industrial applications.

**PSO2:** The ability to apply Power Electronic Circuits in Transmission and distribution network of Power System and interconnection of Renewable Energy.

## **Global Immersion program - AIMST, Malaysia**

EEE students **Dharsinee R (III year)**, **Bhuvanesh J** (III year), **Deepthi M G, Mukund A K** (II year) participated in the **Global Immersion Program (GIP)** organized jointly by SVCE and AIMST at **AIMST University, Malaysia,** from 20th January 2025 to 2nd February 2025. The 14 days course featured sessions on introduction to PLC, IoT, and Entrepreneurship.







Bhuvanesh J and Dharsinee R (III rd Year) attending Seminar in Microproccesor Lab in AIMST University, Malaysia.



Professor Mr.Raman Raguram with Bhuvanesh J and Dharsinee R (III rd Year) in AIMST University,Malaysia.

### Sample Module Topics and Report Highlights 1.Global Supply Chain Management

Students analyzed the impact of geopolitical events on supply chains and proposed strategies for resilience. Reports included case studies on recent disruptions and innovative solutions.

### 2. Cross-Cultural Communication

Reports explored the challenges of communication in multicultural teams and provided recommendations for improving collaboration in global organizations.

### 3. Sustainable Development Goals (SDGs)

Students examined the role of businesses in achieving SDGs and presented actionable plans for integrating sustainability into corporate strategies.

### Summary

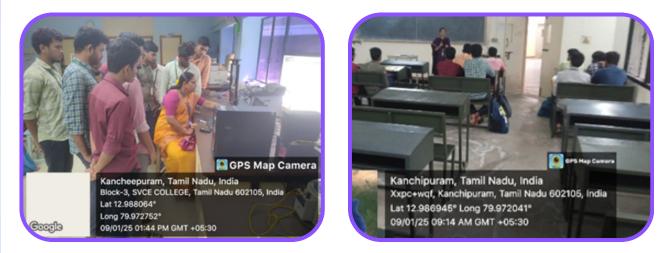
The Global Immersion Program has been a valuable experience for students, offering them the opportunity to engage in global issues and apply their learning through project execution.

**Ms. Dharsinee R,** III year secured 2nd prize in Pongal pot painting competition held on 22.01.2025 at AIMST University, Malaysia.



# **Placement training:**

The core placement training for the 2020-2024 batch Electrical and Electronics Engineering (EEE) students was conducted from 06.01.2025 to 10.01.2025 to enhance the technical knowledge and practical skills in EEE subjects relevant to industries. The training aimed to bridge the gap between academic learning and industry expectations, ensuring students are well-prepared for recruitment processes in various core and interdisciplinary domains.



# The training program covered the following core subjects essential for placements:

- 1. Circuit Theory
- 2. Electron Devices and Circuits
- 3. Electrical Machines (I and II)
- 4. Power Electronics
- 5. Power Systems
- 6. Electric Vehicles (EVs)
- 7. Industrial Automation

The placement training program significantly improved students' understanding of core subjects, problem-solving abilities, and confidence in facing technical interviews. As a result 3 students got selected at Konard Technology.









Infant Vimal M

Madhan Raaj P

**Mohamed Nowful A** 

# Graduation Day (Batch 2020 – 2024)

Graduation Day for the (Batch 2020 – 2024) was held on 25.01.2025. Total Number of students enrolled during 2020-2024 including the lateral entry was 97. Out of that 90 students were graduated.

## **List of Toppers**

| Topper<br>Number |                   | Register<br>Number | CGPA | Rank | Photo |
|------------------|-------------------|--------------------|------|------|-------|
| 1                | DAFINNY T         | 2127200601015      | 9.47 | Ι    |       |
| 2                | MOHAMED<br>KAIF D | 2127200601047      | 9.36 | II   |       |
| 3                | HARIHARAN<br>E    | 2127200601028      | 9.29 | III  |       |



The Research scholars **Mr. Athappan M, Mrs. Arulmozhi.S** and **Mr. Nanda Kumar. S** who had registered in the research centre of EEE received their Doctor of Philosophy degree during the Graduation Day Ceremony 2025.







# Laptop scheme 2024-25

Every year our management offers laptop with subsidized price to the students of first year UG and second year lateral entry students under three categories: merit(M), merit–cum means(MCM) and Economic means(EM). For the AY 2024-25 following students were benefited.

| Sl no | Student Name  | Register Number | Regular<br>/Lateral Entry | Catagory |
|-------|---------------|-----------------|---------------------------|----------|
| 1     | Shreenidhi G  | 2127240601023   | Regular                   | М        |
| 2     | Rathanasamy S | 2127240601074   | Regular                   | EM       |
| 3     | Suhan S       | 2127240601100   | Regular                   | NA       |
| 4     | Shriram P     | 2127230601307   | Lateral<br>Entry          | МСМ      |
| 5     | Swathi P V    | 2127240601308   | Lateral<br>Entry          | EM       |













# **Funding Received**

**Dr.C.Gopinath**, Prof, and **Dr.T.Annamalai**, Associate Prof, received **Rs.35,000/-** grant from Centre for Faculty & Professional Development, Anna University, Chennai, to Organize Physical Mode Six Days FDTP on Hybrid Energy Technology from 17th Feb 2025 to 22nd Feb 2025.

| Branch      | Semester | Code No. | Name of the<br>Programme    | Name and Designation of<br>Co-ordinator(s)             |
|-------------|----------|----------|-----------------------------|--|
| B.E.<br>EEE | vi       | EE3033   | Hybrid Energy<br>Technology | Dr.C.Gopinath, Professor<br>Dr.T.Annamalai, Asso.Prof. |



Dr.C.Gopinath, Professor



Dr.T. Annamalai , Associate Professor

# **Faculty Achievements**

**Dr.C.Venkatesan**, Associate Prof, received a Mentor certificate with Top Performing Mentor from NPTEL for the course, "Smart Grid: Basics to Advanced Technologies" during the Jul - Dec 2024 session.



Dr.Nalinkanth Mohanty reviewed a paper in MDPI - January 2025.



**Dr.S.Sethuraman**, Associate Prof, attended a AICTE-ATAL Sponsored 6-Day Online FDP during the period of 27.01.2025 to 01.02.2025 on the topic "Emerging Trends in optimal design of Electric Vehicles and Hydrogen Fuel Cell Vehicles for sustainable futures" organised by the Dept of EEE, SRM MIET, Madurai.



**Mr.N.Saravanan**, Assistant Prof, attended a AICTE-ATAL Sponsored 6-Day Online FDP during the period of 06.01.2025 to 11.01.2025 on the topic "Next-Generation Algorithms and Technological Advances" organized by MIT CAMPUS, ANNA UNIVERSITY.



**Mr.N.Saravanan**, Assistant Prof, attended a AICTE-ATAL Sponsored 6-Day Online FDP during the period of 20.01.2025 to 25.01.2025 on the topic "Advanced Research Trends for New Semiconductor Chip Designing" organized by SAVEETHA ENGINEERING COLLEGE.



**Mr.Suresh.N**, Assistant Prof, attended a AICTE-ATAL Sponsored 6-Day Online FDP during the period of 20.01.2025 to 25.01.2025 on the topic "Integration of Artificial intelligent techniques to Electric Vehicles and Smart grid" organized by SAVEETHA ENGINEERING COLLEGE.



# **Students Achievements**

**Ms.Shreeniveditha.M**,second year student has completed an internship program in DRDO, Human Research Division ,in the project "Modelling of Ultra capacitor for OLA SI Pro" FROM 06.01.2025 TO 03.02.2025 under the guidance of Rajaraman V Scientist E.



# **Pongal Celebration 2025**

Pongal Celebration for the year 2025 was celebrated at Lord Vijaya Ganapathy Temple, SVCE, on 09.01.2025.

