JUN 2022 - DEC 2022 VOL 8 | ISSUE 18

NEWSLETTER 'ELECTIC'

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INTRODUCTION

The Department of Electrical and Electronics Engineering was established in 1999 with an undergraduate intake of 60 students.

Due to increasing demand and consistent academic growth, the intake was raised to 120 in the academic year 2004–2005 and further to 180 in 2011.

In the same year, the department introduced a postgraduate programme M.Tech in Power Electronics and Drives with an approved intake of 18 students. Since its inception, the department has focused on delivering quality education while adapting to technological advancements and industry needs.

The department offers a curriculum that blends core electrical engineering principles with emerging technologies. Subjects include smart grids, electric vehicles, embedded systems, digital signal processing, and renewable energy integration.

Regular workshops, hands-on training sessions, and industry collaborations ensure students receive practical exposure alongside theoretical knowledge. The department also offers consultancy and training services to industries, strengthening its engagement with the professional world

Faculty members are actively involved in research and have published papers in renowned journals like IEEE, Elsevier, and Springer. The department emphasizes innovation, ethical practices, and producing skilled graduates equipped to address real-world engineering challenges globally.

VISION OF THE INSTITUTE

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

MISSION OF THE INSTITUTE

M1: Quality Education: To provide comprehensive academic system that amalgamates the cutting-edge technologies with best practices.
M2: Research and Innovation: To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.
M3: Employability and Entrepreneurship: To inculcate the employability and entrepreneurial skills through value and skill-based training.
M4: Ethical Values: To instil deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

VISION OF THE DEPARTMENT

To promote proficiency in the field of Electrical and Electronics Engineering by creating a stimulating environment for research, innovation and entrepreneurship

MISSION OF THE DEPARTMENT

M1: Quality Education: To impart high quality technical education with problem solving capabilities by innovative pedagogy in emerging technologies.
M2: Industrial and Societal Needs: To cater the dynamic needs of the industry and society by strengthening industry-institute interaction.
M3: Research and Innovation: To nurture the spirit of research attitude by carrying out innovative technologies pragmatically.
M4: Placement and Entrepreneurship: To inculcate the professionalism in career by advancing synergetic skills to compete in the corporate world

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO 1 ProfessionalKnowledge: To possessstrong educational foundation in Electrical and Electronics Engineering to attain successful career with professional responsibility

PEO 2 Innovative Skills: To enrich the skills to design and develop innovative solutions for engineering problems in a multidisciplinary environment

PEO 3 Ethics: To actively embrace leadership qualities for achieving professional skill with ethical values

PEO 4 Adaptability: To enhance intellectual competency along with technical skills by adapting to the current trends through eternal learning.

PROGRAMME SPECIFIC OUTCOMES (PSOS)

PSO1: Core Proficiency: Utilize the engineering core knowledge to identify, formulate, design, and investigate the complex engineering problems of Power Electronics, Electrical Machines and Power Systems.

PSO2: Cutting Edge Technologies: Explore the new cutting-edge technologies in the field of Electric Vehicle, Automation, Artificial Intelligence, Robotics and Renewable Energy to compete in global market

PSO3: Design and Evolution: Capability to comprehend the technological advancements with the usage of modern design tools for analysing and designing systems to confront the rapid pace of industrial innovations

PROGRAMME OUTCOMES (POS)

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

PO 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.

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

PO 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.

PO 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.

PO 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.

PO 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.

PO 8 (Ethics): Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

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

PO 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.

PO 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 leader in a team, to manage projects and in multi-disciplinary environments.

PO 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.

SMART INDIA HACKATHON

Our team from Sri Manakula Vinayagar College of Enginnering. Puducherry with team leader Dhilipkumar S from Final year/EEE and his team members Rasin. A from Final year/EEE, Maheswaran.S & Monishal from Second year/ECE, Vikranthi M from Second year/ICE and Varadaruj from Mechatronics Second under yeur the guidance of Dr.D.Raja Professor and Mr.C.Adrien Perianayagam Assistant Professor from the Department of EEE has provided the solution for problem statement "Ready to use First Aid Kit for Military use". The students have designed a first aid kit model with unique features and won first prize. The winner team was honored with memento and a prize amount of Rs I lakh

CII INNOVATION CONTEST-2022

A three-day boot camp training was organized by CII Innovation Contest 2022 for our students from 17th-19th October by Atal Incubation Centre Pondicherry Engineering College (AIC- PECF). Two teams from our department have been shortlisted for stage II with a team leader Savitha.M from Second Year and her team members Suwathy.M.S & Keerthiga.M from Second Year, and Rahul.T from first year. Another team with a team leader Bomidi Pujitha and her team members Jensy Alblya.A.J & Lokeswarl.G from final year

INNOVATION CHALLENGE CONTEST

SMVEC Incubation Center, Atal Incubation Center (AIC)- Pondicherry Engineering College Foundation and SMVEC IEEE Student Branch organized Simplif-i "A 2-Day Boot Camp" on July 7th and 8th, 2022 in SMVEC Auditorium conducted by Mr. Vishnu Varadan. V, CEO-AIC and Presidential Address was given by Shri. M. Dhanasekaran, Chairman and Managing Director, SMVEC Trust. Selected students were given training by the Atal Incubation Center. (AIC)

LAB VISIT BY THE TEAM FROM MANATECH

The General Manager, MANATECH Private Ltd., visited Department Labs on 21.09.2022

ACADEMIC AUDIT

Academic Audit was conducted on 31.10.2022. Expert members from other department performed the audit.

WORKSHOP

Two-day workshop on "ATOMS IN THE SERVICE OF THE NATION" was organized by the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam in collaboration with Sri Manakula Vinayagar Engineering College participated on 26.07.2022 (Workshop). Students from various schools and colleges visited the exhibition and also attended the 2 days workshop.

WORKSHOP

Mr.Bhuvaneshwaran R, Engineer, SITRAIN, SIEMENS had demonstrated a few Hands- On experiments on "PLC and SCADA Technology" to II and III year EEE students

GUEST LECTURE

Mr.Kanagasabal kumaraswamy, Electrical Safety Engineer. KYPC, Kuwait, delivered guest lecture titled "ELECTRICAL SAFETY AND AREA CLASSIFICATION™ to the II year EEE students on 12.08.2022

GUEST LECTURE

Mr. Selvakumar, senior engineer, Qualcomm, Bangalore, delivered online guest lecture titled "HISTORY AND RECENT TRENDS ON MICROCONTROLLER" to the II year EEE students on 05.08.2022

SPORTS

Our students got an opportunity to showcase their talents and prove what they are capable off. The final year students of EEE were the Runners up in the EPL cricket event, conducted on the 4th of July 2022 and were rewarded by our chairman and Managing Director.

SPORTS

Our management has conducted "ULTRAMATE KABADDI CHAMPIONSHIP" which we organized by the department of Electrical and Electronics Engineering. The finals were conducted on 10th August 2022. Our First and second year students were the winners and were rewarded by our Chairman and Managing Director an Independence Day

JUN 2022 - DEC 2022 VOL 8 | ISSUE 18

NEWSLETTER

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