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NEWSLETTER- 'ELECTIC'

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INTRODUCTION

A Legacy of Excellence Since 1999
Established in 1999, the Department of Electrical and Electronics Engineering (EEE) began its journey with an undergraduate intake of 60 students. Over the years, the department has witnessed remarkable growth — expanding its intake to 120 in the academic year 2004–2005 and further to 180 in 2011. Recognizing the demand for advanced studies, the department also introduced the M.Tech in Power Electronics and Drives in 2011, with an approved intake of 18 students.

Academic Programmes

- Undergraduate: B.Tech in Electrical and Electronics Engineering
- Postgraduate: M.Tech in Power Electronics and Drives

Both programmes are designed with industry-aligned syllabi, ensuring our graduates are well-prepared for the evolving demands of the engineering sector.

Training, Consultancy, and Industry Collaboration
The department is committed to professional and need-based continuing education, regularly conducting training programmes in frontier areas of Electrical Engineering. Alongside, consultancy and technical services are extended to industries, fostering strong academia–industry relationships.

Research and Innovation
Our faculty members actively contribute to global research, publishing in prestigious journals such as IEEE, Elsevier, and Springer. The department stands as a unique centre for the promotion of excellence in Electrical Engineering, driven by innovation and dedication.

Cutting-edge Learning and Skills
Recognizing the multi-disciplinary nature of EEE, we equip students with knowledge and skills in:

- Artificial Neural Networks (ANN) & Fuzzy Logic
- Finite Element Analysis (FEA)
- Computer-Aided Design (CAD) of Electrical Machines
- Microcontrollers & Digital Signal Processing (DSP)
- Power Generation, Transmission & Distribution
- Power System Operation & Control
- Electrical Machines & Drives

- Infrastructure & Laboratories: The department is equipped with state-of-the-art laboratories such as High Voltage Lab, Electrical Machines Lab, Power Electronics Lab, Control Systems Lab, Renewable Energy Lab, and an advanced Research & Development Lab to facilitate both academic and industrial projects.
- Industry Collaboration: Maintains strong links with leading industries and organizations through MoUs, enabling internships, industrial visits, and collaborative research projects.
- Research & Innovation: Faculty and students actively engage in funded research projects from agencies such as DST, AICTE, and DRDO, resulting in patents, prototypes, and innovative solutions for real-world problems.
- Workshops & Technical Events: Regularly organizes workshops, seminars, hackathons, and international conferences to enhance knowledge sharing and keep students updated with emerging technologies.
- Placements & Career Support: Consistently achieves high placement records with top recruiters in core and IT sectors, providing pre-placement training and career guidance.
- Renewable & Sustainable Energy Focus: Emphasis on research in solar, wind, and hybrid renewable energy systems to promote sustainable engineering practices.
- Student Associations & Clubs: The EEE Students' Association, IEEE Student Chapter, and Renewable Energy Club actively engage students in co-curricular and extra-curricular activities.
- Alumni Network: A strong and active alumni network spread across the globe in reputed organizations and higher education institutions, supporting mentorship and career growth for current students.
- Skill Development: Offers certification courses in MATLAB, PLC & SCADA, IoT applications, Embedded Systems, and Artificial Intelligence in collaboration with industry partners.

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 Professional Knowledge: To possess strong 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.

INDUSTRIAL VISIT

Third-year students visited Viji Power Transformers Pvt. Ltd., Bangalore, a company specializing in the design, manufacture, and testing of power and distribution transformers. During the visit, they gained insights into various stages of transformer production, including core assembly, coil winding, insulation, tank fabrication, oil filling, and quality testing.

GUEST LECTURES

A Digital Signal Processing (DSP) based motor control system ensures precise, efficient, and responsive control of motors. It processes signals in real time to adjust speed, torque, and position for optimal performance.

Staying focused, learning from mistakes, and keeping balance are key to both engineering systems and personal growth.Whether it's a DSP algorithm or a teenager's mindset, adaptability is the true power behind smooth performance.

NATIONAL INNOVATIVE PROJECT AWARD 2023(NIPA'23)

The Department of Electrical and Electronics Engineering conducted the National Innovative Project Award 2023 (NIPA'23) to showcase student innovations and creative engineering solutions. Teams from various institutions presented their projects, and the best innovations were recognized with awards and certificates.

SPARK ' 23

Dr. D. Raja was honored with the Best Teacher Award at SPARK'23, in recognition of his exceptional teaching skills, dedication to student development, and significant contributions to academic excellence.

MEACON'23

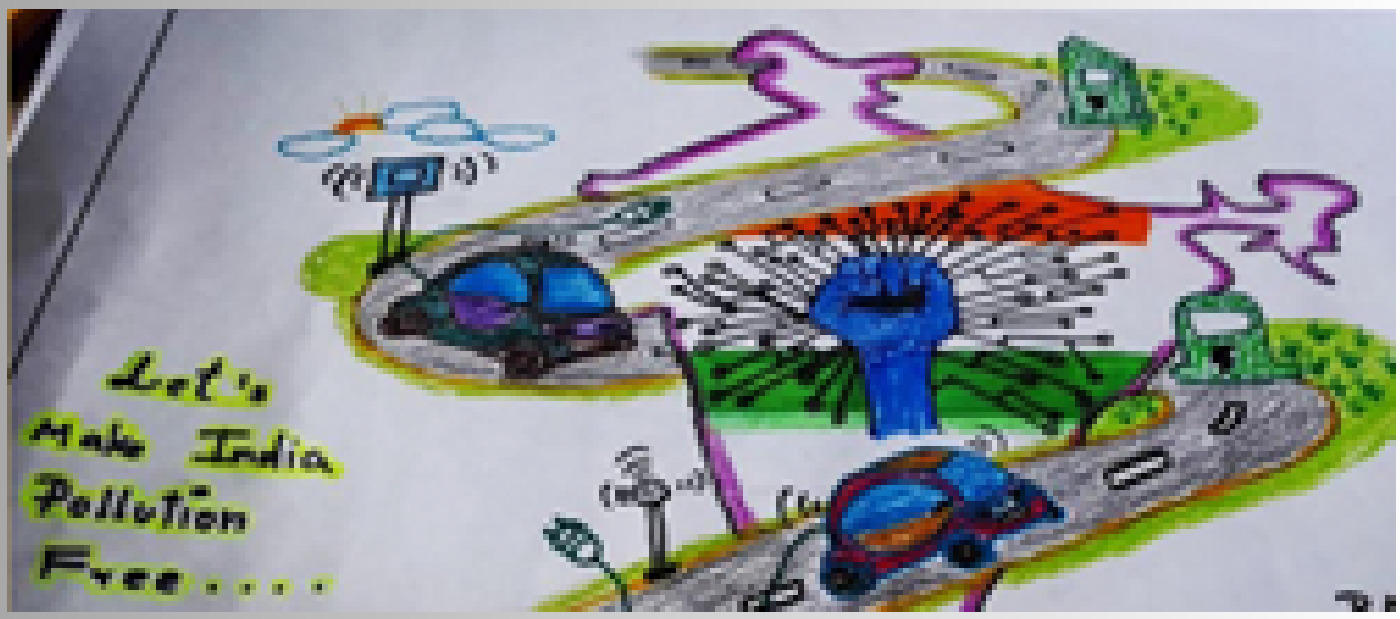
Our students K. Jothikrishnan and Jeevasudhan actively participated in MEACON'23, a national-level technical symposium hosted by the Department of Mechanical Engineering. They showcased their innovative ideas through paper presentations and project exhibitions. Several students took part in technical competitions, demonstrating their skills and creativity.

MITILENCE'23

Third year students P.Mohanraj, B.Mohanraaji, G.Yogesh, K.Sedhuram, P.Kirubagaran had participated in MITILENCE 2023 at Sri Manakula Vinayagar Institute of Technology (MIT) on 24.3.2023 and won FIRST prize in Paper presentation and SECOND prize in Technical Quiz

DRAWING COMPETITION

Our students SINDHUJA. K actively participated in the Drawing Competition on the theme “Pollution-Free India” and creatively showcased their vision of a clean and green nation.



VIGNESHWARAN.V participated in the Drawing Competition on the theme “Pollution-Free India.” Her artwork highlighted the importance of reducing pollution and promoting sustainable living through vibrant and imaginative ideas.

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