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.

CII PUDUCHERRY INNOVATION CHALLENGE CONTEST 2021

A proud moment for the young innovators behind the Smart Biofloc Fish Farming project, as they receive recognition at a prestigious startup summit. Their cutting-edge solution integrates IoT sensors, automated aeration, and microbial management to enhance fish health, reduce costs, and promote eco-friendly aquaculture. This achievement reflects their commitment to transforming traditional fish farming into a sustainable, technology-driven enterprise.

APTITUDE TRAINING

The students from third year B section had attended "Aptitude training" by the placement coordinator Mr.Muruganandam. The students get knowledge about aptitude training activities.
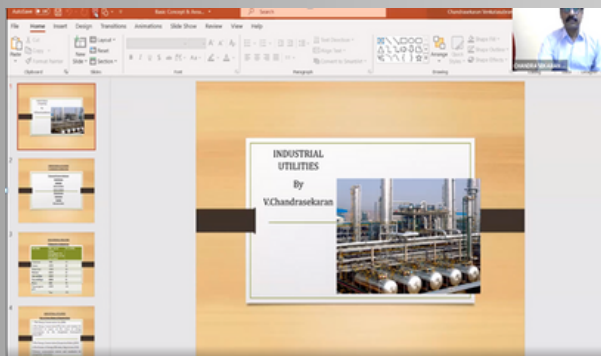
GUEST LECTURE INDUSTRIAL UTILITIES"

Under IEI Student Chapter Guest Lecture was arranged by the department of Electrical and Electronics Engineering Students. The lecture was handled by Mr. V.Chandrasekaran, Chief Executive Officer, NITAS, Chennai. In this Lecture discuss about what are utilities need to support the company operations.The session was handled in online mode the students gain knowledge about the discussion

SEMINAR BY ALUMNI-PLACEMENT PREPARATION

The students from first year had attended Alumini Interaction of Mr.Sri. Balaji , Software Engineer, Hermen International, Bangalore. In this Discussion, discuss about their software project in the software company.Students are actively participated and gain knowledge about the discussion.
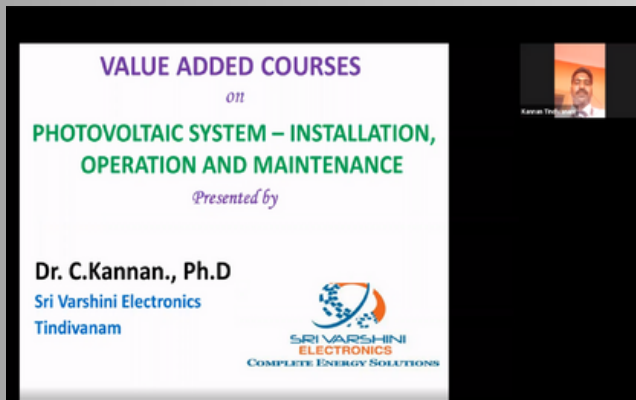
GUEST LECTURE

Dr. C. Kannan, CEO, Sri Varshini Electronics, Tindivanam, delivered online guest lecture titled "Solar Power Installation, Operation and Maintenance" to the III year and IV year EEE students on 25.09.2021

ETHNOTECH
CENTER OF EXCELLENCE

AutoCAD Electrical batch 2019-2023

International certification courses were conducted for our III year students in the areas of "AutoCAD Electrical" in order to enhance the Technical skills of our students by Autodesk Ethnotech solutions from 28-02-2022 to 05-03-2022.

IOT-Internet Of Things batch 2019-2023

International certification courses were conducted for our III year students in the areas of "Internet of Things" in order to enhance the Technical skills of our students by from 28-02-2022 to 05-03-2022.

AutoCAD Electrical batch 2020-2024

International certification courses were conducted for our II year students in the areas of "AutoCAD Electrical" in order to enhance the Technical skills of our students by Autodesk Company solutions from 28-02-2022 to 05-03-2022.

NEWSLETTER
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