



NEWSLETTER

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INSTITUTE VISION

Producing globally competent and quality technocrats with human values for the holistic needs of industry and society.

INSTITUTE MISSION

- Creating an outstanding infrastructure and platform for enhancement of skills, knowledge and behaviour of students towards employment and higher studies.
- Providing a healthy environment for research, development and entrepreneurship, to meet the expectations of industry and society.
- Transforming the graduates to contribute to the socio-economic development and welfare of the society through value based education.

DEPARTMENT VISION

To be a center of excellence in imparting knowledge, skills and ethical values, while fostering innovation, sustainability and globally competent to make exemplary contributions to the field of Electrical and Electronics Engineering.

DEPARTMENT MISSION

- To impart technical education using state-of-the-art infrastructure, laboratories, and instructional methods, ensuring students acquire comprehensive knowledge and skills.
- To foster industry-oriented learning by facilitating internships, industrial visits, collaborative projects with industries.
- To create a congenial environment for higher education, employment, and entrepreneurship by delivering quality education, enhancing professional skills and promoting research and innovation.
- To promote societal commitment and ethical leadership by instilling moral values and encouraging responsible engineering practices among students.

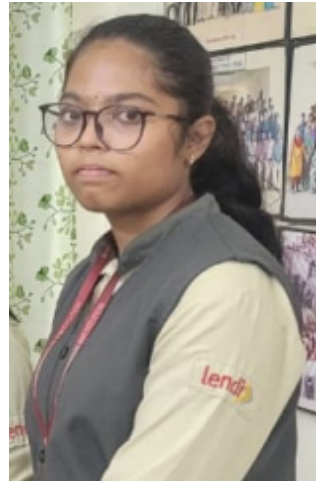
PROGRAM EDUCATIONAL OBJECTIVES

- Graduates will possess a strong foundation in core and interdisciplinary areas of Electrical and Electronics Engineering along with analytical and computational skills, enabling them to tackle global challenges through innovative and critical problem-solving
- Graduates will actively engage in research, entrepreneurship, and innovation to address contemporary challenges in Electrical and Electronics Engineering while promoting sustainable and inclusive technological development for the betterment of society.
- Graduates will exhibit effective communication skills, collaborative abilities, and ethical values, preparing them for successful careers, higher education, and leadership roles in a rapidly evolving competitive environment.

PROGRAM SPECIFIC OUTCOMES

- PSO1: Capable of design, develop, test, verify and implement electrical and electronics engineering systems and products.
- PSO2: Succeed in national and international competitive examinations for successful higher studies and employment.

STUDENT PARTICIPATIONS



1.A.Venkata Sai Gayatri presented a paper on Cybersecurity Applications in Smart Grid: Issues and Challenges in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation.

2.P.Venkata Lakshmi, T.Harshini, P.Thanusri presented a paper on Battery Management Systems in electric Vehicles in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation

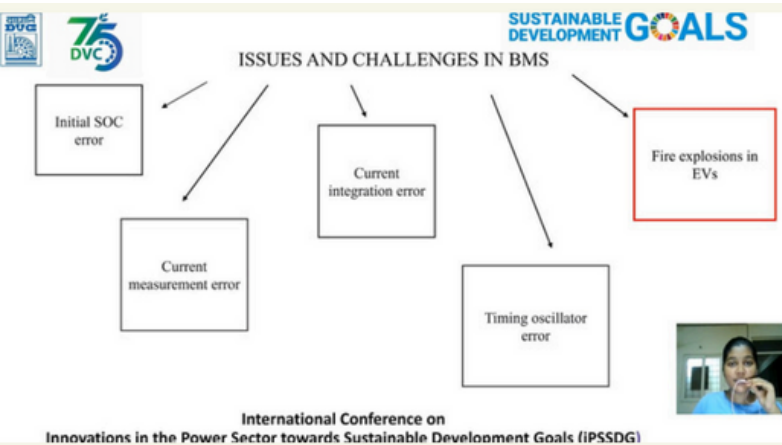
3.P.Haripriya, P.Venkata Lakshmi, R.Hemalatha presented a paper on Artificial Intelligence based MPPT Techniques for mitigating partial shading effects on PV systems in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23–24 June 2023 at Kolkata,India organized by Damodar Valley Corporation.

4.T.Harshini, P.Thanusri, R.Monica presented a paper on A Review on the Applications of the Nature Inspired Optimization Algorithms in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation.

5.N.Yamini, P.Thanusri, T.Harshini presented a paper on Integration of Electric Vehicles in Smart Grid: An Overview in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation.

6.N.Yamini, P.Haripriya, R.Hemalatha presented a paper on A Review on Energy Efficiency Initiatives and Regulations in an International conference on “Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)”, held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation.

STUDENT PARTICIPATIONS



Paper ID: 100
Cyber Security Applications in Smart grid; Challenges and Solutions

Aradhyula Gayatri
UG Scholar, Dept. of EEE, LIET(A), Vizianagaram, A.P
23rd - 24th June 2023



Mechanical energy conservation methods

Mechanical energy conservation methods are techniques used to reduce the amount of energy consumed by mechanical systems. These methods involve the use of various technologies and strategies to increase efficiency of Machines and processes, there by reducing the amount of energy required to perform is specific task.

International Conference on Innovations in the Power Sector towards Sustainable Development Goals (IPSSDG)

Introduction:

Nature inspired computing is a technique that is inspired by processes, observed from nature. These computing techniques led to the development of algorithms called Nature Inspired Algorithms (NIA). These algorithms are subject of computational intelligence. The purpose of developing such algorithms is to optimize engineering problems. As the world is moving towards industrialization, engineering problems are becoming more and more complex and difficult to optimize. This is because of increasing dimensions, variables, time complexity, space complexity etc. To cope up with such situation, nature inspired algorithms are designed to optimize numerical benchmark functions, multi objective functions and solve NP-hard problems for large number of variables, dimensions, etc. NIA are mainly categorized into evolutionary algorithms and swarm intelligence-based algorithms.

International conference on "Innovations in the Power sector towards Sustainable Development Goals(IPSSDG)" held during 23,24 June 2023 at Kolkata,India organized by Damodar Valley Corporation

Maximum Power Point Tracking

- The process of maintaining the operating point of PV panel at maximum power is called "Maximum power point tracking".
- According to Maximum Power Transfer theorem, the power output of a circuit is maximum when the Source impedance of the circuit matches with the load impedance.
- In the source side we are using a boost converter connected to a solar panel in order to enhance the output voltage so that it can be used for different applications like motor load.
- By changing the duty cycle of the boost converter appropriately we can match the source impedance with that of the load impedance.

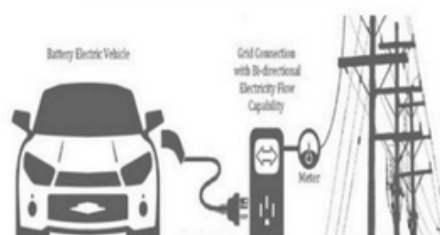
International Conference on Innovations in the Power Sector towards Sustainable Development Goals (IPSSDG)

SUSTAINABLE DEVELOPMENT GOALS

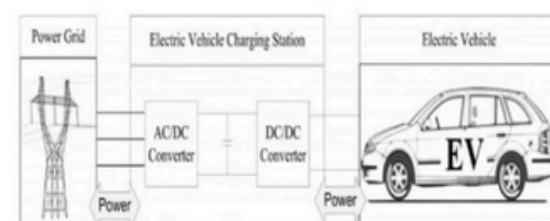


SUSTAINABLE DEVELOPMENT GOALS

Vehicle to Grid Technology



Power Flow from Vehicle to Grid



- The frame work of V2G concept involves several important elements such as power utility system of bidirectional battery charging facilities etc....
- Communication between vehicles and power grid.





ENGINEERS DAY EVENTS



PROFESSIONAL BODY EVENTS

Department of EEE, Lendi strives to provide an excellent platform for the students to showcase thier innovative ideas for the development of society and the country..

The students will present their ideas on the eve of Engineers day events, Professional body events and other intracollegiate events



R&D ACTIVITIES



INDUSTRIAL VISITS

Department of EEE, Lendi strives to provide platform for the students to obtain industrial experience..In this regard, students from Final EEE have visited APEPDCL, SPM NELLIMARLA on 23rd and 25th of september 2023





MISSION GATE



FACULTY RESEARCH CONTRIBUTIONS

1. DR.K. SUBBARAMAIAH PUBLISHED A PAPER TITLED – “PV FED MULTI-LEVEL INVERTER WITH REDUCED NUMBER OF POWER ELECTRONICS COMPONENTS” IN DOGO RANGSANG RESEARCH JOURNAL, JUNE 2023.
2. DR. B.V.S.ACHARYULU PUBLISHED A PAPER TITLED – SEA LION OPTIMIZED PID+DD CONTROL FOR LOAD FREQUENCY CONTROL OF A HYBRID POWER SYSTEM IN SN COMPUTER SCIENCE JOURNAL, JULY 2023.
3. DR.P.JANAKI PUBLISHED A PAPER TITLED – CHARACTERIZATION AND EVALUATION OF ELECTRICAL PROPERTIES OF CORN OIL BIODIESEL MIXED WITH NANO ADDITIVE IN INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, JUNE 2023.
4. DR.P.JANAKI PUBLISHED A PAPER TITLED – EVALUATION OF ELECTRICAL PROPERTIES OF GRAPHENE NANOPOWDER-DISPERSED PROPYLENE GLYCOL-WATER SOLUTIONS IN ENGINEERING RESEARCH EXPRESS JOURNAL, JULY 2023.
5. MR. K. PRAVEEN KUMAR YADAV PUBLISHED A PAPER TITLED – EXPERIMENTAL ANALYSIS OF DI-ZSI BASED DSTATCOM IN INTERNATIONAL JOURNAL OF APPLIED POWER ENGINEERING, SEPTEMBER 2023.
- 6.MRS.K.ASWINI PUBLISHED A PAPER TITLED DEEP NEURAL NETWORK BASED INTELLIGENT MULTI-MICROGRID ENERGY MANAGEMENT IN IEEE 3RD INTERNATIONAL CONFERENCE OF SUSTAINABLE ENERGY AND FUTURE ELECTRIC TRANSPORTATION (SEFET) SEPTEMBER 2023.

