



ILLUMINARIES



VOLUME-15

ISSUE -1

JUNE- 2024



Shri Vishnu Engineering College for Women
(Autonomous)
Vishnupur, Bhimavaram, Andhra Pradesh

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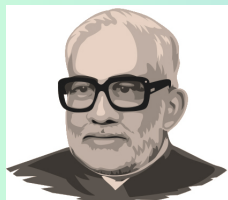
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20B01A0246

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21B05A0207

3)K.K.G.Lakshmi
21B01A0221

Vision:

“To establish a knowledge hub in the field of Electrical & Electronics Engineering to meet the needs of the society”

Mission:

- To produce quality Electrical and Electronics Engineers.
- To inculcate discipline and ethical values among the students.
- To empower students to succeed in higher education and research.

Editor's MESSAGE:

I am pleased to announce the publishing of the Department of Electrical and Electronics Engineering's newsletter for the first half of 2024. It showcases a range of our staff and students' achievements and activities. Shri Vishnu Engineering College for Women (Autonomous) aims to make students' life brighter by applying their knowledge of flame to make unique shapes.

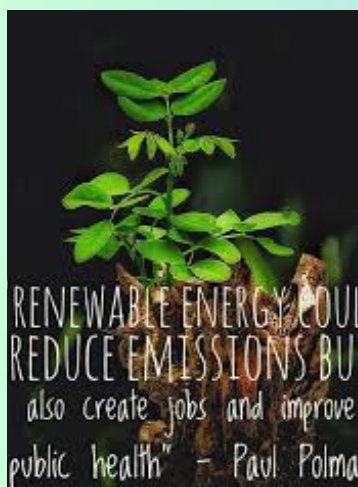
Student Article

Title : Design and Implementation of Solar-Powered Grass Cutter: (A Prototype)

ABSTRACT : Since ancient times, Sunlight has been the main source of heat energy. Alternative energy sources, commonly termed non-conventional or renewable energy sources, are naturally available like Solar, Wind, and Hydro. It is used as an alternative source of energy in place of fossil fuels which causes pollution. This paper describes how we designed and built a solar-powered grass cutter. By incorporating solar panels, the machine harnesses sunlight as its main energy source. The main objective of developing the Prototype model of the grass cutter is to create an eco-friendly solution for lawn maintenance that reduces greenhouse emissions and minimizes the usage of fossil fuels. This prototype is designed so that it is controlled remotely by using Arduino UNO. After developing the prototype model, the system analysis is accomplished, and based on the results, the solar grass cutter's reliability with the system's high efficiency is compared with previous studies. This project aims to showcase solar-powered technology in practical applications to inspire the adoption of non-conventional energy sources in everyday tasks.

Authors

- 1) Kunapareddy Navya Harshitha
- 2) Pulagam Usha Devi
- 3) Pappoppu Pushpa Rekha
- 4) Patan Sabiha Roshin



Department of Electrical & Electronics Engineering-EEE organized one day Workshop on “Intellectual Property Rights (IPRs) and IP management for start-up” on April 13, 2024 for I year students. The Resource person is Mr. Muthyala Sarath, Associate Faculty at National Institute of Micro, Small & Medium Enterprises (NI-MSME), Hyderabad.

WORKSHOP ON
IPR & IP Management for Start-ups

Saturday
13th April, 2024

Venue
A-Block 202

Mr. Muthyala Sarath
Associate Faculty member,
National Institute for Micro, Small and Medium Enterprises (NI-MSME) Hyderabad.

organized by
Department of



Alumini Meet

SVECW Alumni Meet was held at Vishnu Educational Development and Innovation Centre (VEDIC), Bengaluru on 10/02/2024. The EEE Alumni from various MNC Companies like Mahindra & Mahindra, MuSigma, PWC, Capgemini attended the meet.



PLACEMENTS

Tech Mahindra



Kusuma Jessi
21B05A0210
8 lakhs

Schnider Electric

Tech Mahindra



K S L N V Nikhitha
20B01A0296
8 Lakhs

Schnider Electric

Tech Mahindra



K Usha Sria
21B01A0209
8 Lakhs

Schnider Electric

Tech Mahindra



Manne Pallavi
20B01A0270
8 Lakhs

Schnider Electric



Kengam Neelima
20B01A0254
5.5 Lakhs

Schnider Electric



Mudunuri Saranya
20B01A0275
5.5 Lakhs

Schnider Electric



P Divya Sri Lekha
20B01A0285
5.5 Lakhs

Infenion



Tellam Hema Sri
20B01A02A3
5.5 Lakhs

Hitachi Energy



K. Sri Sanjana
21B01A0208
5.5 Lakhs



P. Devika Rani
20B01A0283
5.5 Lakhs



K. Vyshnavi
20B01A0247
5.5 Lakhs



D.S. Nandini
20B01A0233
5.5 Lakhs



Faculty Interaction

FACULTY INTERACTION

Dr. Kaushik Basu, Professor, Department of Electrical Engineering, Indian Institute of Science (IISc.), Bangalore, Interacted with faculty and Visited all Special Labs and research projects in the departments of EEE, ECE and Mechanical at Shri Vishnu Engineering College for Women .



FACULTY TEAM VISIT

Mr. A. Siva, Asst. Professor, EEE & Team visited State of Art Labs on “Automotive Design” at IIT Madras and VIT Chennai on 23-04-2024. He Interacted with Dr. Annamalai, professor and Dean , Interacted with the Faculty regarding MIT (Madras institute of technology) Anna university regarding Automotive Design course-on 24-04-2024.





Faculty Development Program

FACULTY DEVELOPMENT PROGRAM :

our Department organized one week online FDP on “Entrepreneurial Perspectives on Green Energy & Electric Vehicle Innovation” during 21st -26th May 2024 under the esteemed coordination with Dr.SSSR Sarath babu , Professor & Dr.M.V.Srikanth, Associated Professor who played a Key role for the successful Completion.

Case study-1: Delhi

Year	Peak power demand (in MW)
2018	7,016
2019	7,409
2020	6,314
2021	7,323
2022	7,695
2023* (estimated)	8,100

Power Demand of Delhi

- Tata Power run a Pilot-Project in Delhi (2019) to reduce peak power upto 1.5 MW during peak hours by utilizing DSM.
- The Asian Development Bank (ADB) and Tata Power Delhi Distribution Limited (TPDDL), Sign Deal to Enhance Delhi’s Power Distribution Through Grid Enhancements and Battery Energy Storage System. (10 Apr 2023)
- Delhi government said that the peak load of the national capital is expected to reach 8000 MW in late June or early July.

Integration of Electric Vehicles into Distribution Network

P Bala Sai Kiran, GE Vernova

Participants: M V Srikanth (Organizer), B V Vijayalaxmi (Unverified), BALAMURUGAN P... (Unverified), Devi Naidu (Unverified), Dhana Prasad (External), Dileep, Dr S Lakshmi (Unverified), Dr. MORTHA SAI V... (Unverified), Dr. Mukh Raj Yadav (Unverified), Dr.K.Rajesh (Unverified)

Design and Development of Analog Signal Conditioning & Data Acquisition System

Department of Electrical & Instrumentation Engineering

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Participants: M V Srikanth (Organizer), ASAPU SWA (Unverified), B V Vijayalaxmi (Unverified), Dr N Bhooopal (Unverified), Dr. J.S.V. Siva Kumar (External), Dr.K.Rajesh (Unverified), K VENKATESWARA... (Unverified), k.Manoj kumar Re... (Unverified), Kalparna Mamidi (External)

FACULTY ACHIEVEMENTS

Faculty Publications



Dr.S.M.Padmaja and et al,” Stability and reliability analysis for multiple WT using deep reinforcement learning” in January -2024 in Electric Power Components and Systems in Volume - 52 in issue -2 in Taylor and Francis with DOI: <https://doi.org/10.1080/15325008.2023.2220313>.

M. S. R. Ganesh of EEE department presented a paper titled” Development of Restructured Electric Vehicle with Battery Charge Monitoring System using IoT " 2024 1st International Conference on Innovative Sustainable Technologies for Energy, Mechatronics, and Smart Systems (ISTEMS) | 979-8-3503-8424-6/24/\$31.00 ©2024 IEEE | DOI:10.1109/ISTEMS60181.2024.1056015.



M. S. R. Ganesh, Mahendra Chand Bade of EEE department presented a paper titled ”Integration of Electric powertrain to Conventional vehicle through Renovation technique” 2024 1st International Conference on Innovative Sustainable Technologies for Energy, Mechatronics, and Smart Systems (ISTEMS) | 979-8-3503-8424-6/24/\$31.00 ©2024 IEEE | DOI:10.1109/ISTEMS60181.2024.10560323.



Lakshman Kumar Dangeti, SSSR Sarathbabu Duvvuri, Mahendra Chand Bade, M Siva Rama Ganesh of EEE department presented a paper titled “A Modified Non-Isolated Switched-Inductor based Boost Converter using Voltage Multiplier Cell for EV Application,” 3rd IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), held at Delhi Technological University, Delhi, India from 26 - 28 April, 2024.



SSSR Sarathbabu Duvvuri and et al, "Modified Dynamic Modeling of Three-Phase Induction Motor in ABC Reference Frame," 2024 1st International Conference on Innovative Sustainable Technologies for Energy, Mechatronics, and Smart Systems (ISTEMS), Dehradun, India, 2024, pp. 1-4



M. S. R. Ganesh, R. Pradeep Sudha and S. S. Duvvuri of EEE department presented a paper titled "Restructuring of Conventional to Electric Vehicle and Timely-Based Prepaid Charging," 2024 3rd International conference on Power Electronics and IoT Applications in Renewable Energy and its Control (PARC), Mathura, India, 2024, pp. 421-426, doi: 10.1109/PARC59193.2024.10486231.

Department Vision	
To establish a knowledge hub in the field of Electrical & Electronics Engineering to meet the needs of society	
Department Mission	
<ul style="list-style-type: none"> To produce quality Electrical and Electronics Engineers To inculcate discipline and ethical values among the students To empower students to succeed in higher education and research 	
PEOs (UG Programme)	(PEOs of PG Programme)
<p>PEO1: Demonstrate employability skills and leadership qualities to serve the society.</p> <p>PEO2: Achieve personal and professional success with awareness and commitment to their ethical and social responsibilities.</p> <p>PEO3: Improve professional competence through life-long learning including higher education and research.</p>	<p>PEO1: Graduates acquire technical knowledge to solve complex real-world problems.</p> <p>PEO2: Graduates will exhibit competencies to excel in academia or industry.</p> <p>PEO3: Graduates acquire ability to practice ethical values.</p>
POs (UG Programme)	POs (PG Programme)
<p>PO1 An ability to apply knowledge of mathematics, science and engineering.</p> <p>PO2 An ability to design and conduct experiments as well as analyze and interpret results to provide valid conclusions.</p> <p>PO3 An ability to design system components (or) processes optimally.</p> <p>PO4 An ability to contribute individually/ in group(s) representing varied engineering disciplines to accomplish a common goal.</p> <p>PO5 An ability to identify, formulate and solve complex engineering problems.</p> <p>PO6 An understanding of professional and ethical responsibilities.</p> <p>PO7 An ability to use written and oral communication skills effectively</p> <p>PO8 An ability to understand the impact of engineering solutions in a global, economic, environmental and societal context.</p> <p>PO9 An ability to engage in independent and life-long learning.</p> <p>PO10 Knowledge of contemporary issues related to engineering.</p> <p>PO11 An ability to use appropriate techniques, resources and modern engineering tools for engineering practice.</p> <p>PO12 An understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team to manage projects.</p>	<p>PO 1 The graduates have ability to discriminate, evaluate and analyze by acquiring conceptual knowledge base in power electronics.</p> <p>PO 2 Ability to analyze complex engineering problems critically and synthesize information independently for conducting research in theoretical and practical context.</p> <p>PO 3 Ability to think originally and arrive at optimal solutions for power electronic systems after considering safety and environmental factors.</p> <p>PO 4 Ability to identify, formulate research problems individually or in group(s) to the development of technological in the field of power electronics</p> <p>PO 5 An ability to develop mathematical models to use modern tools for designing power electronic topologies for various applications.</p> <p>PO 6 An ability to identify the opportunities in multi-disciplinary and collaborative research work</p> <p>PO 7 Ability to manage projects effectively after consideration of technical and financial factors.</p> <p>PO 8 An ability to develop networking in power electronics community and to make effective presentations and technical reports.</p> <p>PO 9 An ability to engage in life-long learning and an understanding of the needs to meet current trends of developments in the field of power electronics.</p> <p>PO 10 An ability to acquire professional and ethical responsibilities for sustainable development of society.</p> <p>PO 11 An ability to examine critically the outcomes of one's actions and make corrective measures independently</p>