

ILLUMINARIES



VOLUME-16

ISSUE -2

DECEMBER- 2025



ESTD : 2001

Shri Vishnu Engineering College for Women
(Autonomous)

Vishnupur, Bhimavaram, Andhra Pradesh

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SVECW

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23B01A0256
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23B01A0255
- 3)V.Venuka
24B01A0238

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:

With great pleasure, I inform that the newsletter for the Issue 2 for the Academic year 2025-26 from the Department of Electrical and Electronics Engineering has been released. It features a variety of accomplishments and activities from our staff and students. The goal of Shri Vishnu Engineering College for Women (Autonomous) is to illuminate students' lives by using their understanding of flame to create shapes in a distinctive way.

RESEARCH ARTICLE

A common ground enhanced switched inductor voltage multiplier cell converter with reduced device stress for fuel cell applications

Abstract : Fuel cells (FC) inherently deliver low DC voltages, necessitating high step-up DC-DC converters for efficient interfacing with higher-voltage DC links in modern power systems. However, most existing high-gain converter topologies suffer from drawbacks such as high conduction losses, elevated semiconductor voltage stress, and complex multi-switch architectures, which limit their suitability for compact FC applications. To address these challenges, this paper proposes an enhanced switched-inductor with voltage multiplier cell (eSLVMC) topology utilizing two semiconductor switches. The proposed converter attains a high voltage gain at a lower duty ratio with a reduced component count and a common-ground (CG) configuration, while effectively minimizing current and voltage stress on both the switches and the diodes. Furthermore, the voltage stress across the output capacitors is significantly reduced, enhancing reliability and reducing component ratings. In this work a comprehensive analysis is presented, covering continuous and discontinuous conduction mode (CCM/DCM) operations, component design methodology, non-ideal parameter effects, and comparative evaluation with existing high-gain topologies. The proposed converter's performance is validated through MATLAB/Simulink simulations and on a developed 100-W experimental prototype. The comprehensive loss assessment indicates that the proposed system achieves an efficiency of 93% and with a power density.

D Laxman Kumar
Assistant Professor

Switch to **green energy**
Power up a **sustainable future**

Benefits of Green Energy:

- 1.Reduces greenhouse gas emissions, contributing less to climate change
- 2.Less pollution, conserves natural resources
- 3.Reduces energy costs in the long run
- 4.Stimulates local economies
- 5.Reduces reliance on fossil fuels

INDUSTRIAL VISIT

Polavaram Project : As a part of academic activity, the EEE students of III-II Semester cohort undertook an industrial visit to the 'Polavaram Hydro Electric & Irrigation Project' on 9th December 2025 located at Polavaram, East Godavari Dt., Andhra Pradesh.



E-Ziba Racers Excel at SAE-India Autonomous BAJA 2025

30-member all-girls multidisciplinary team, Team E-Ziba Racers from Shri Vishnu Engineering College for Women (SVECW), showcased outstanding performance at the SAE-India Autonomous BAJA 2025 competition held at the Global Automotive Research Centre (GARC), Chennai, from 6th to 13th October 2025.

The event brought together top engineering institutions across India to design, build, and test autonomous all-terrain vehicles. Team E-Ziba Racers successfully cleared multiple stages of technical inspection and participated in a series of static and dynamic tests, including Safety Evaluation, Design Event, Business Presentation, Autonomous Emergency Braking, Traffic Light & Sign Detection, Adaptive Cruise Control, Lane Keep Assist, and Endurance.



Student Internships

Seimens' SEPL



KOTLA N S NEHANVITHA
23B05A0204

Kone Elevators



Y S RATNAM
22B01A0261

Renault Nissan



ANDE MEGHANA
23B05A0201

Renault Nissan



ANDE MEGHANA
23B05A0241

Renault Nissan



MEDISETTY JHANSI
23B01A0206

AAVIZA



RAVULAPALLI PREETHI
23B05A0209

AAVIZA



BANDELA CHANDRIKA
22B01A0208

AAVIZA



BONDADA DEEPTHI
22B01A0211

AAVIZA



CHILUKURI NAVYA SRI
22B01A0215

AAVIZA



SRI PUJITHA VELIGATLA
22B01A0259

AAVIZA



KANDUKURI SRAVANI
23B05A0203

AAVIZA



SUNKARA ESWARI
23B05A0210

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PLACEMENTS

Cap Gemini



M K Lahari
4.25 LPA
Cap Gemini

Cap Gemini



M Tejaswi
4.25 LPA
Cap Gemini

Cap Gemini



Satyanjali
4.25 LPA
Cap Gemini

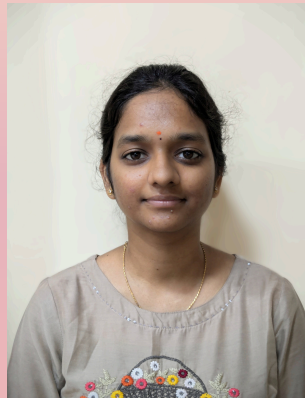
Cap Gemini



M K S Sai Bala
4.25 LPA
Infosys



P SIRI
4.25 LPA
Infosys



P K Harika
4.25 LPA
Infosys



R Keerthi Priya
4.25 LPA
Infosys



B D Deepika
3.6 LPA
Infosys



G.Spandana
3.6 LPA



G S S Bhavishya
3.6 LPA



K S L Harshitha
3.6 LPA



M Keerthana
3.6 LPA

PLACEMENTS

Infosys



M Jhansi
3.6 LPA

JSW

Energy Espl



B Deepthi
3.65 LPA

JSW

JSW



B Sindhu
5.5 LPA

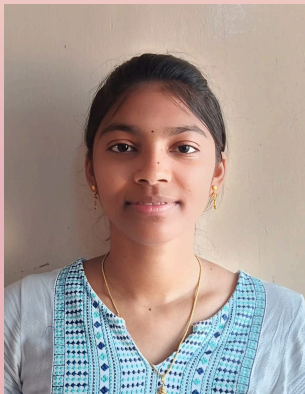
Sify ISL

JSW



G Spandana
5.5 LPA

Sify ISL



M Tejaswi
5.5 LPA

Renault Nissan



P Siri
5.5 LPA

Renault Nissan



Ch Y Deepika
4.25 LPA

Renault Nissan



R Preethi
4.25 LPA

Capgemini IA



A Meghana
4.25 LPA



N Hema Sri
4.25 LPA



B D Deepika
4.25 LPA



G S Ramya Krishna
4.25 LPA



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Student Award



Kumpatla Navya (23B01A0226) has been recognized with the Eco Excellence Award at the IET Achievement Awards 2025. This prestigious award, presented by the IET Hyderabad Network, was conferred on November 1st, 2025, at NIT Warangal. This award is presented in appreciation of outstanding contributions to sustainability, environmental awareness, and green technology initiatives.

Project EXPO

3 Teams from EEE Department have been shortlisted in Round-I of the AICTE Productization Fellowship (APF) Scheme and were invited to attend IIC Regional meet at SRM University, Amaravathi

Team 1: B.DeviLatha (23B010204) III-EEE, A D L Rushitha (24B01A0205) II-EEE

Project Title: Development of Battery pack with a Battery Management system and real time monitoring for EV

Team 2: P.Prasuna IV-EEE, Ch.Navya sri, IV-EEE

Project title : Design and Development of Charge monitoring and fire protection system using IOT.

Team 3: Ch.Sowjanya, II-EEE, V.B.V.N Lakshmi, II-EEE Project: Design and Development of solar Grass Cutter





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Student Publications



IV EEE Students, **M. Keerthika Lahari** (22B01A0232), **K. Naga Sree Nehanvitha** (23B05A0204), **J. Harsha Vardhini** (22B01A0227), and **Ch. Mrudula** (22B01A0217), under the guidance of the faculty **Dr. A. Siva**, published a research paper titled “**Seven-Level T-Type Asymmetrical Multilevel Inverter with Minimum Leakage Current for a Transformer less Grid-Tied Solar PV System**” in IEEE Xplore, December 2025, presented at the IEEE 2025 International Conference on Sustainable Technologies for Humanity and Smart World (HSWTech–2025) held at MIT World Peace University, Pune.

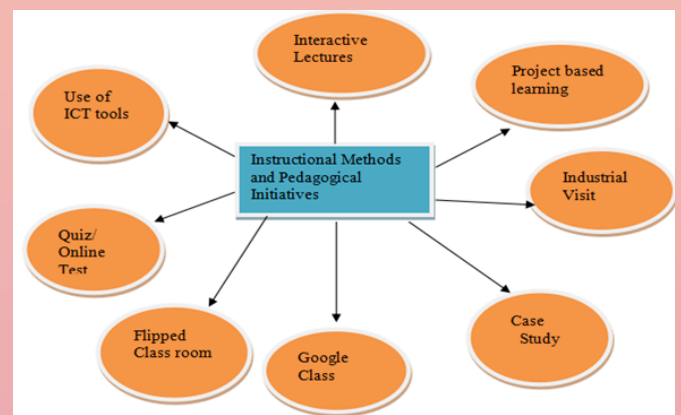
Smart City Challenge Competition



Under the guidance of the faculty **Dr. A. Siva**, the Students, **Eepuri Sivani** (23B01A0215), **Challa Sri Bharati Amulya** (23B01A0207), **Mylabathula Jeevana Jyothi** (23B01A0233), have presented the project prototype in the final round of ‘Smart City Challenge’ held on 25th October 2025, Organized by the IET Chennai Local Network, at IT Expressway Hotel, Sholinganallur, Chennai.

PEDAGOGICAL INIATIVES

A pedagogical initiatives flowchart outlines a structured, student-centric approach to learning, typically moving from planning and assessment to active implementation and evaluation. It helps visualize key steps like setting goals, selecting teaching methods, providing feedback, and refining techniques to improve learning outcomes, often incorporating technology and personalized learning.





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Faculty Publications



Dr. M V Srikanth Published a journal article titled “**Design and Implementation of Model-Assisted reduced-order ADRC for power system load frequency control problem with communication delay**” in ISA Transactions, Elsevier Publishers (SCIE, Impact factor: 6.5)

Dr. A. Siva Published an article titled “**Advanced control strategy for a windhydrogen-battery standalone microgrid under distribution line fault conditions**” in the Scopus-indexed journal, International Journal of Powertrains (IJPT), Vol. 14, No. 3, 2025



SSSR Sarathbabu Duvvuri, Attended and Published a **Research Paper** at 11th International Conference on Power Systems organized by Department of Electrical Engineering, Indian Institute of Technology Hyderabad, during 07th -09th December 2025

FACULTY -INDUSTRY INTERACTION

Dr. SSSR Sarathbau Duvvuri attended a program organised by **MATHWORKS India Limited** on 30th October 2025 at Hyderabad office.



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FACULTY -INDUSTRY INTERACTION

Mr. S. Veerababu attended the major three-day ITEC INDIA 2025 in Pune from September 18th -20th. The international conference, organized by SAEINDIA and IEEE with ARAI, focused on the latest innovations in electric vehicle technology.



Dr. A. Siva, Assistant Professor, EEE Dept. was recognized for his invaluable guidance, mentorship, and dedicated support extended to the student team that participated in the Final Round of the Smart City Challenge Competition 2025. The competition was held on October 25th, 2025, held on 25th October 2025, organized by the IET Chennai Local Network.



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FACULTY -INDUSTRY INTERACTION

Mr. S. Veerababu, attended a one Day Workshop on 'Ethernet Day', Conducted by Vector Informatic at Hotel Feather, Chennai on 18th November -2025 and Interacted with Dr. Brahmananda Patil, CMD of Vector Informatic, INDIA



Dr. SSSR Sarathbau Duvvuri attended the "ASTHRA – The Chem Car Challenge," hosted by the Chemical Engineering department of BVRIT Narasapur on October 17 18, 2025.



Program Educational Objectives :: B. Tech. - EEE

PEO 1 : Demonstrate employability skills and leadership qualities to serve the society.

PEO 2: Achieve personal and professional success with awareness and commitment to their ethical and social responsibilities.

PEO 3: Improve professional competence through life-long learning including higher education and research.

Program Outcomes:: B. Tech. - EEE

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4).

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5).

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6).

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9).

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences.

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for

i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8).

Program Specific Outcomes :: B. Tech. - EEE

PSO 1: Ability to enhance living standards of disabled people by designing appropriate products with the help of technology.

PSO 2: Competence to explore, analyze and solve problems related to power electronic systems.