

ARR'26- JUN'26

इलेक्ट्रीकल इंजीनियरिंग विभाग ELECTRICAL ENGINEERING DEPARTMENT

NEWSLETTER

SARDAR VALLABHBHAI
NATIONAL INSTITUTE
OF TECHNOLOGY SURAT

DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering is one of the oldest departments at Sardar Vallabhbhai National Institute of Technology. The department actively conducts various academic and research activities throughout the year. This newsletter presents a brief about various activities from April 2026 to June 2026.



HIGHLIGHTS

- Research publications
- Expert Talks
- Workshops
- Students Achivements

Department Vision

To be the leading department disseminating globally acceptable education, effective industrial consultancy and relevant research output.

Department Mission

To be a global centre of excellence in technical education and innovation producing competent professionals with integrity.

Programme Educational Objectives

- Graduates will be able to solve engineering / industrial problems by employing various learning resources and modern tools.
- Graduates will be able to design products to meet social, economic and environmental demand by innovative ideas.
- Graduates will be able to investigate complex problems and take up research and development work in the allied fields.
- Graduates will be able to communicate effectively through oral and written presentation of technical reports, adopting lifelong learning with integrity and ethics; and they will have interpersonal skills required to lead and nurture diverse teams.

**PROF. S.R. ARYA**

Head, DoEE
SVNIT, Surat

Welcome to the Department of Electrical Engineering at SVNIT, Surat. The Department has 23 well-qualified faculty members actively involved in academics, administrative duties, research, and consultancy. The broad research areas are Power Electronics, Electrical Drives, Power Systems, Control and Instrumentation. The faculty published several research papers indexed in SCIE, SCI, ESCI, Web of Science, Scopus, etc. Also, the worth of present ongoing and completed projects is more than two crores.

The Department of Electrical Engineering offers B. Tech and M. Tech programmes. The M. Tech specializations are Power Electronics and Electric Drives, Power Systems and Control & Automation. The Department of Electrical Engineering has many PhD scholars, and a significant amount of research is ongoing.

I am happy to present the 20th issue of the Department's quarterly newsletter. The present issue includes new administrative duties, STTPs/Workshops, student placement details, Research publications and projects, and faculty and student achievements.

I acknowledge the efforts of the committee members **Dr. P.Kundu, Dr. V.Mahajan, Dr. C.P.Gor** and **Dr. Suresh Lakhimsetty** in editing this issue. I also thank **Shri. Mayank Bhagat** for assisting the committee members.





RESEARCH PUBLICATIONS

Journals

- **R. K. Uppuluri, R. R. Chilipi and M. A. Mulla**, "Model Predictive Control of a Single-Stage SPV under Weak Grid Conditions," in IEEE Transactions on Consumer Electronics, doi: 10.1109/TCE.2026.3682997.
- **Jagadeesh Ch, Sabha Raj Arya, Ashutosh K. Giri**, "Power quality features in distributed power generation using a gradient adaptive algorithm with optimised PI gain," International Journal of Ambient Energy, vol.47, no.1, pp.1-20, 2026.
- **P. Kumar, S. R. Arya and S. Kumar**, "Power Quality Enhancement Using Dynamic Voltage Restorer With Echo State Network and Type-2 Fuzzy Logic Control," in IEEE Journal of Emerging and Selected Topics in Industrial Electronics, vol. 7, no. 3, pp. 1089-1098, July 2026, doi: 10.1109/JESTIE.2026.3670180.
- **Joshi Sukdev Nirbheram, Aeidapu Mahesh**, Techno-economic analysis and optimization of standalone PV-WT-Battery hybrid energy systems with loss assessment, Journal of Energy Storage, Volume 141, Part A, 2026, 119074, ISSN 2352-152X, <https://doi.org/10.1016/j.est.2025.119074>.
- **Joshi Sukhdev Nirbheram, Aeidapu Mahesh, Ambati Bhimaraju**, Feasibility study of a PV-grid-assisted charging station for electric and hydrogen fuel cell vehicles under uncertain arrivals, Energy, Volume 322, 2025, 135449, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2025.135449>.
- **Ch. Jagadeesh, S.R. Arya, A. k. Giri and P. Ray**, "Variable Step Size ZALMS with Optimized PI for Power Quality in Wind Integrated PMSG System," Accepted for Publication, IEEE Transactions on Industry Applications, 2026.

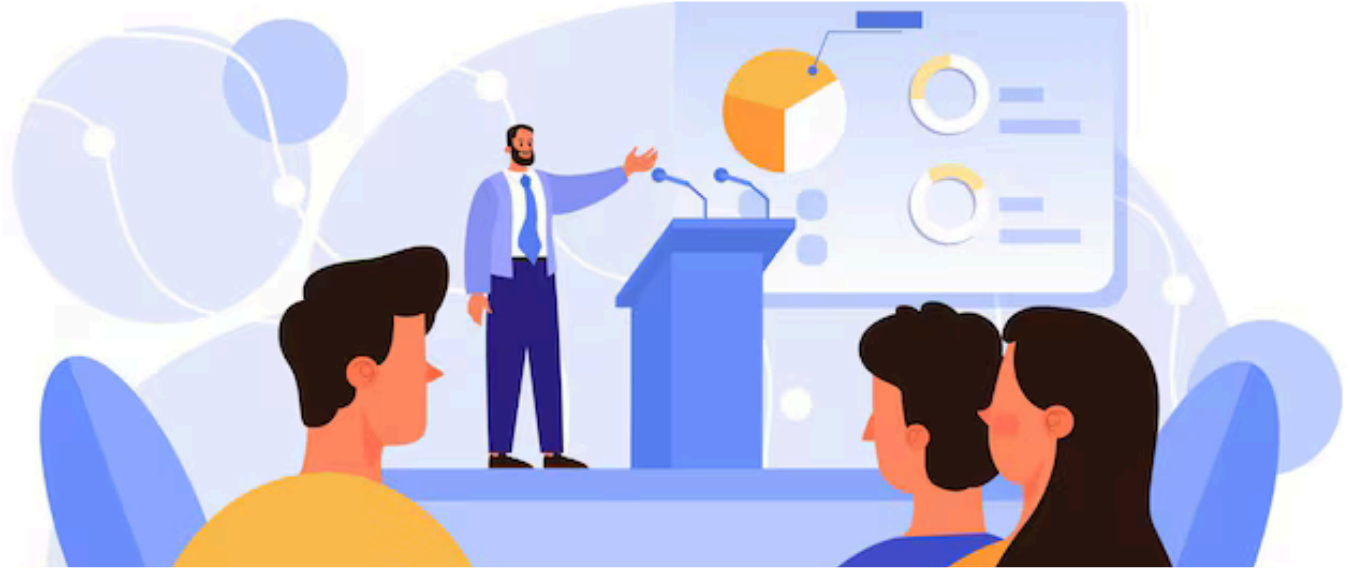


RESEARCH PUBLICATIONS

Journals

- **P. Mahesh, S. R. Arya, and P. Ray**, "Indirect Rotor Flux Oriented Parameter Adaptive Control of Induction Motor Drives under Dynamics with Optimized Gains," Accepted for Publication IEEE-CPSS Transactions on Power Electronics and Applications, 2026.
- **Pudari, S. R. Arya and B. C. Babu**, "Optimal HONN for Parameter Estimation in Adaptive Speed Control of IRFOC-Based Induction Motor Drives," in IEEE Transactions on Power Electronics, vol. 41, no. 9, pp. 14839-14848, Sept. 2026





EXPERT TALK

- **Dr. Mahmadasraf A. Mulla** delivered talk on “Chapter Engagement” in E-Mobility Industry–Academia Conclave organised on 02 May 2026. Organised by IEEE Gujarat Section IES/IAS/PELS Joint Chapter and IEEE IES – Hubs&Nodes Initiative at DoEE, SVNIT, Surat, Gujarat, India.
- **Dr. Mahmadasraf A. Mulla** delivered talk on “Power Electronics for a Sustainable Future – PELS Day and Chapter Activity” during the PELS Day Celebration event on 19 Jun 2026.
- **Dr. Mahesh Aeidapu** delivered talk on “Battery SoC and SoH Estimation using AI and ML”, Workshop on Battery Energy Storage Systems (BESS-2026), 13th May, 2026.
- **Dr. Mahesh Aeidapu** delivered talk on “A Novel Search Space Reduction Meta-Heuristic Optimization Algorithm”, U. V. Patel College of Engineering, Ganpat University, U. V. Patel College of Engineering, Ganpat University, 11 January 2025.
- **Dr. Mahesh Aeidapu** delivered talk on “Battery Management Systems and SoC Estimation Using Deep Learning Techniques, Power Electronics Applications in Smart Grids and Electric Vehicles”, Department of EEE, National Institute of Technology Andhra Pradesh, 18 March 2025.
- **Dr. Mahesh Aeidapu** delivered talk on “SoC Estimation Using Deep Learning Techniques, Applications of Artificial Intelligence in Electrical Engineering”, Presidency University, Bengaluru, 30 July 2025.
- **Dr. Mahesh Aeidapu** delivered talk on “Economic Load Dispatch Using Meta-Heuristic Techniques”, Dayanand Sagar College of Engineering, Bengaluru, 05 November 2025.



WORKSHOP

SUCCESS



PROGRESS



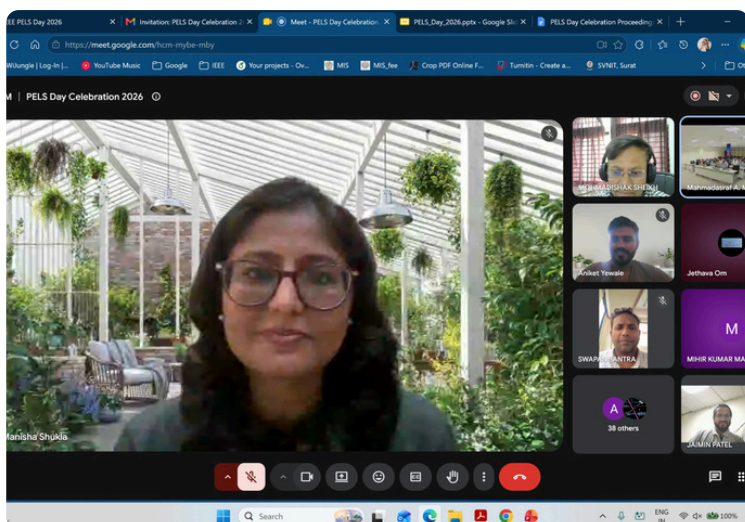
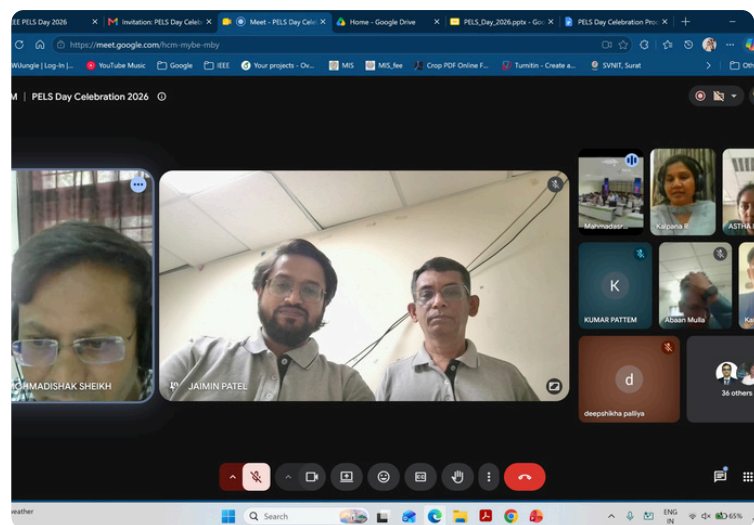
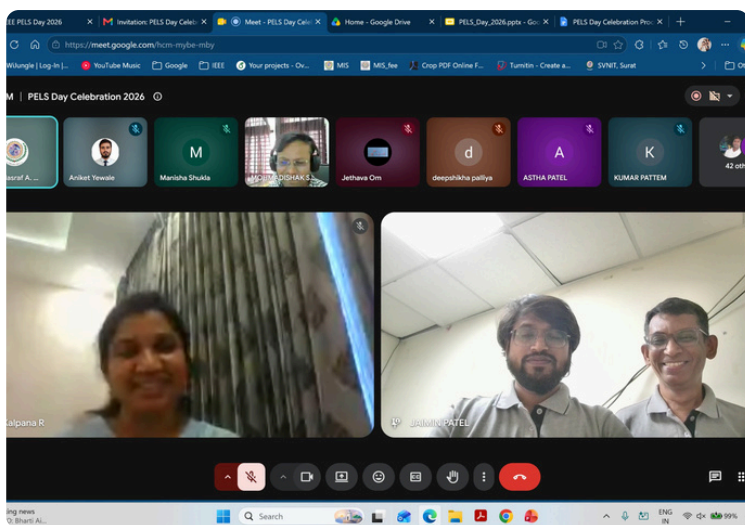
IDEA

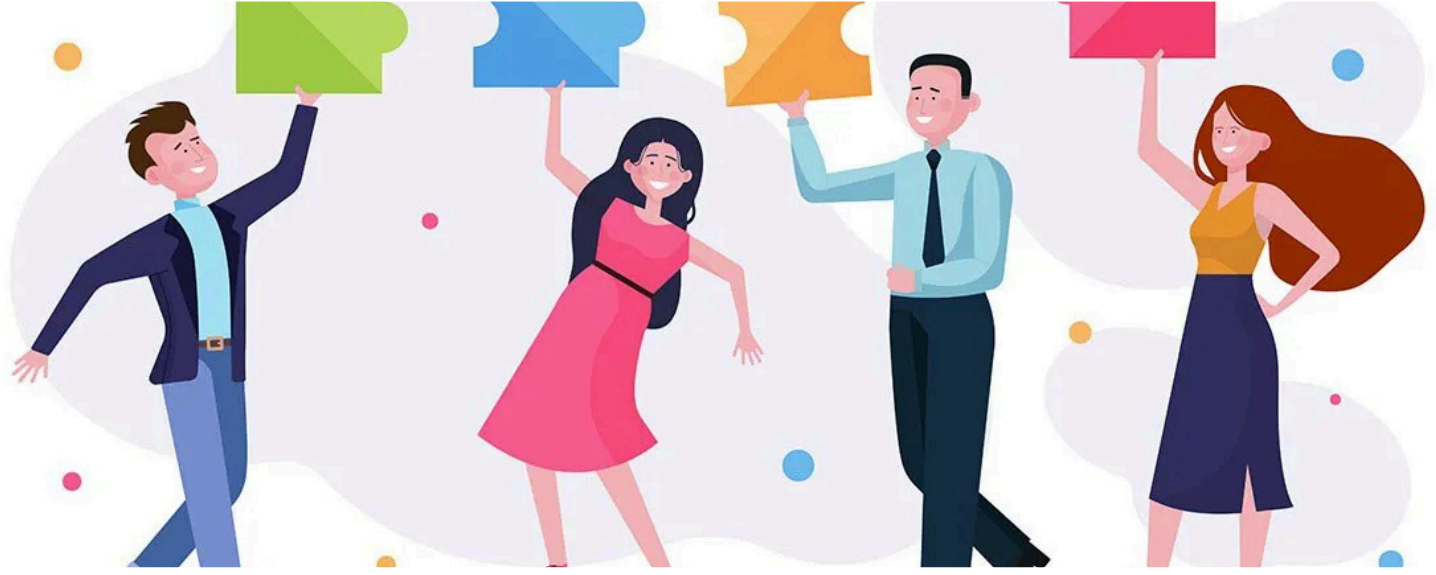
- In-person “E-Mobility Industry - Academia Conclave,” organised by EEE IES and SVNIT, Surat, on 02-May-2026. Received \$500 from the IEEE Industrial Electronics Society for the event.





- Hybrid Event for PELS Day Celebration at SVNIT, Surat was organized on 19 Jun 2026. Dr. Kalpana from NITK and Er. Manisha Shukla from Hitachi Energy was the speaker. Received \$200 from the IEEE Power Electronics Society for the event.





Institute/Department level Faculty new Roles/Responsibilities



Dr. Mahesh Aeidapu

- Department level: GeM Coordinator from 01/08/2025



Dr. Suresh Lakhimsetty

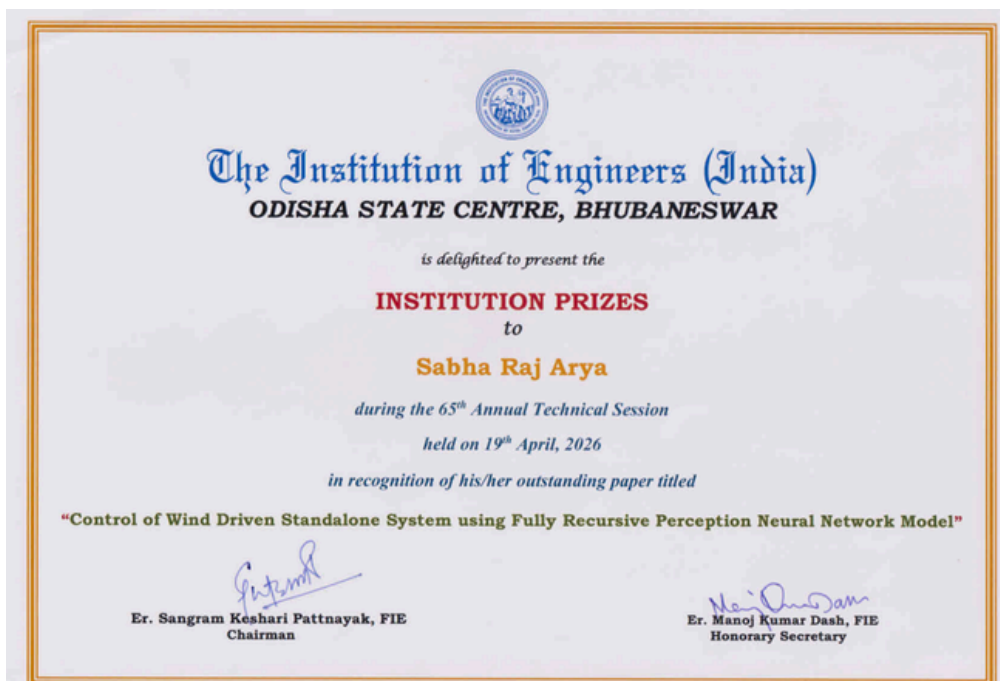
- Department level: GeM Coordinator from 01/08/2025





FACULTY ACHIEVEMENTS

- **Dr. Mahesh Aeidapu** Selected as a Fellow of the Soft Computing Research Society
- **Prof. Sabha Raj Arya** received the Institution Prize from The Institution of Engineers (India)





STUDENT ACHIEVEMENTS

 **SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT** 

Congratulations
For
Early Induction Programme at
IIT BOMBAY
Department of Electrical Engineering

 Vansh Pankil Ajmera U23EC054	 Tailor Khushang U23EC016	 Sara Anand U23EC181	 Ayushmaan Singh U23EE019
 Vinayak kumar U23EE093	 Himra Theja Moripati U23EC168	 Anisha Patel U23EE023	 Nishit U23EE040
 Tushar Sharma U23EE116	 Ekta Kumari Khanda U23EE003	 Sujal Solitra U23EE022	 Pujan PriyushKumar U23EE015
 Shah Devam U23EE050	 Dhandhukya Divyeshbhai U23EE087		

TEAM



DR. P.KUNDU
ASSOCIATE PROFESSOR
DOEE, SVNIT SURAT



DR. V.MAHAJAN
ASSOCIATE PROFESSOR
DOEE, SVNIT SURAT



DR. C.P.GOR
ASSISTANT PROFESSOR
DOEE, SVNIT SURAT



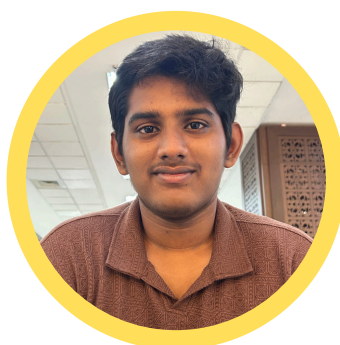
DR. SURESH LAKHIMSETTY
ASSISTANT PROFESSOR
DOEE, SVNIT SURAT



MAYANK BHAGAT
SENIOR TECHNICIAN
DOEE, SVNIT SURAT



YASH BAROT
U25EE008
2ND YEAR B,TECH



MUKUNDAN M
U25EE014
2ND YEAR B,TECH



JAYDEEP DHRANGU
U25EE051
2ND YEAR B,TECH