

Topics Covered in the STTP

- ◆ Advanced Power Converter Topologies for Solar/Wind Applications
- ◆ Exploring Innovative Converter Designs that Enhance Efficiency and Reliability in Renewable Energy Systems
- ◆ Control Strategies for Grid Integration of Renewable Energy
- ◆ Power Quality and Harmonics Mitigation in Renewable Energy Systems
- ◆ Efficient Integration of Renewable Sources into the Power Grid.
- ◆ Electric Vehicle Powertrain Architectures and Control
- ◆ Battery Management Systems (BMS) and Charging Technologies.
- ◆ Vehicle-to-Grid (V2G) and Grid-to-Vehicle (G2V) Technologies
- ◆ Wide Bandgap Semiconductors: SiC and GaN in Power Electronics
- ◆ AI and Machine Learning in Power Electronics

Who can participate?

Faculty members, research scholars of recognized universities from India and abroad, UG/PG students and industry personnel can participate in the STTP. Selection will be made on the first-come-first-serve basis to a maximum number of 250.

Certificate to Participants:

- ◆ The certificate will be issued to participants upon satisfactory completion requirements.
- ◆ Participants must have attended 70% of sessions and must qualify the MCQ test at the end of the program.

List of Invited Speakers

1. **Dr. Priyanka Chaudhary**, GE Renewable, Noida, UP, India.
2. **Dr. Manish Kumar Barwar**, Opal-RT Technologies, North Delhi, India.
3. **Mr. Nilesh Ranpura**, eInfochips, Ahmedabad, India.
4. **Dr. Sanjeet Dwivedi**, Global R&D Danfoss Power Electronics, Denmark
5. **Prof. (Dr.) Mahadasraf A. Mulla**, SVNIT, Surat, India.
6. **Dr. Nishant Kumar**, IIT Jodhpur, India
7. **Prof. (Dr.) Ranjan Kumar Behera**, IIT Patna
8. **Dr. Hasmat Malik**, Universiti Teknologi Malaysia (UTM), Malaysia.
9. **Dr. Pallavi Bharadwaj**, IIT Gandhinagar, India.
10. **Prof. (Dr.) Prerna Gaur**, Netaji Subhas University of Technology (NSUT), New Delhi, India.
11. **Prof. (Dr.) P. Sanjeevikumar**, University of South-Eastern Norway, Norway.

Registration:

Registration Fees: ₹ 200+18% GST = ₹236/participant
The registration fee should be paid through bank transfer or UPI. The account detail for this purpose is as follows:

A/C Name: Marwadi University-
Faculty of Research
Bank Name: Bank of India
A/C NO: 313220110000042
IFSC CODE: BKID0003132



QR Code for UPI

After the successful payment, take snapshot of payment proof with the transaction reference number, which is to be uploaded in online registration form.

Click the link below to proceed the registration

<https://forms.gle/o6udUjSFWh662BhVA>

The online meeting link for the STTP will be sent to the selected candidates one day before the STTP.



**One Week Online
Short Term Training Program
on**

**Developments in Power
Electronics for Renewable Energy
and Electric Vehicle Technologies**

24th June to 28th June, 2025

Sponsored By:

**Marwadi University &
IEEE IES-IAS-PELS Joint Chapter**

**IEEE Gujarat
Section
IES-IAS-PELS JOINT CHAPTER**

Organized by:
**DEPARTMENT OF ELECTRICAL ENGINEERING,
MARWADI UNIVERSITY
RAJKOT-MORBI HIGHWAY, RAJKOT- 360003
GUJARAT**

About Marwadi University

Marwadi University, established in 2016 in Rajkot, Gujarat, is a state private university accredited with a NAAC A+ grade. It offers a wide range of undergraduate, postgraduate, and doctoral programs across various disciplines. The university is recognized for its modern infrastructure, student s from 54 countries, and strong placement opportunities, with over 480 companies participating in campus recruitment drives. Currently, Marwadi University offers Degree programmes in:

- ♦ Engineering (B.Tech. & M.Tech.)
- ♦ Management (MBA & BBA)
- ♦ Computer Application (BCA, MCA)
- ♦ Science (B.Sc. & M.Sc.)
- ♦ Commerce (B.Com.)
- ♦ Law (LLB & LLM)
- ♦ Pharmacy (B.Pharm. & M.Pharm.)
- ♦ Physiotherapy (BPT & MPT)
- ♦ Nursing (B.Sc. & GNM)
- ♦ Doctorate (Ph.D.)

The university also offers online programs such as BBA, BCA, MBA, MCA, MA, and MSc. MU is recognized as the top engineering institution in Saurashtra, dedicated to the holistic growth of students. It holds an A+ Grade accreditation from NAAC, and its Engineering and MBA programs are NBA Tier-1 accredited. The university is also recognized as a Centre of Excellence by the Government of Gujarat.

About Electrical Engineering Department

Established in 2019, the Department of Electrical Engineering has grown significantly in both academic and research domains. The department offers Undergraduate (B.Tech.), Postgraduate (M.Tech.), and Ph.D. programs, designed to meet the evolving needs of the industry and academia.

The B.Tech. curriculum is enriched with elective groups, internships, and skill-based courses to enhance practical knowledge and employability. The M.Tech. program offers specializations in Electric Vehicles and Power Electronics & Electrical Drives, preparing students for advanced roles in emerging technologies and innovation-driven sectors.

The Department of Electrical Engineering at Marwadi University houses advanced software and hardware laboratories with state-of-the-art technology and sophisticated machinery. These well-equipped labs serve as a hub for researchers and enthusiastic students, promoting innovation, creativity, and hands-on learning through real-time applications. Key labs include Power System, High Voltage, Power Electronics & Drives, and the dedicated Research Lab. The Research Lab features DSP controllers, dSPACE controllers, OPAL-RT Real-Time Simulator, Chroma PV Simulator, modern instruments like Fluke Power Quality Analyzer, DSOs, and MSOs. The software Lab, equipped with academic tools such as MATLAB and LabVIEW, enables students to conduct complex simulations and real-time implementation of experimental prototypes. These facilities help develop critical problem-solving skills, deepen technical knowledge, and enhance research aptitude, preparing students to meet industry demands.

Objective of STTP

This program is designed to enhance the knowledge and skills of educators, researchers, and industry professionals in the rapidly evolving fields of renewable energy and electric vehicles. The primary aim is to provide a comprehensive understanding of the latest advancements in power electronics, which are pivotal for the efficient integration and operation of renewable energy systems and EV technologies. Following are objectives of the STTP:

- Comprehensive Understanding of Emerging Technologies
- Integration of Power Electronics in Renewable Energy Systems
- Advancements in Electric Vehicle Technologies
- Exposure to Recent Trends and Research Opportunities
- Simulation and hands on sessions

Patrons:

Prof. (Dr) Rajendrasinh Jadeja, Provost, MU
Prof. (Dr.) Sanjeet Singh, Pro Vice Chancellor, MU
Prof. (Dr) Ramdevsinh Jhala, CoE, MU
Shri Naresh Jadeja, Executive Registrar, MU
Dr. Mahmasraf A. Mulla, Chair, IEEE Gujarat Section Joint Chapter of IES, IAS & PELS

Conveners:

Dr. Nishant Kothari, Associate Professor & HOD, EED MU
Dr. Amit Ved, Vice-Chair, IEEE Gujarat Section Joint Chapter of IES, IAS, & PELS, and Associate Professor, EED, MU
Dr. Priyesh Chauhan, Technical Activity Chair, IEEE Gujarat Section Joint Chapter of IES, IAS, & PELS

Programme Coordinators:

Dr. Diwaker Pathak, Assistant Professor, EED, MU
Dr. Tapankumar Trivedi, Associate Professor, EED, MU

Organizing Committee:

Mr. Uvesh Sipai, Asst. Prof., EED, MU
Mr. Vatsalkumar Patel, Asst. Prof., EED, MU
Dr. Atul Kunapara, Asst. Prof., EED, MU

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