## **International Conference on**

# Sustainable Energy Technologies and Computational Intelligence **(SETCOM 2025)**

(Towards Sustainable Energy Transition)



## DEPARTMENT OF ELECTRICAL ENGINEERING, SOET

Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India | Web: https://www.setcom2025.in/

**February 21 – 23, 2025 (Physical)** 



# **IEEE** Gujarat Section

## **Conference Theme**

SETCOM 2025 is the 1st International Conference on Sustainable Energy Technologies and Computational Intelligence, which is being organized by the Department of Electrical Engineering, Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India during 21st-23rd February 2025. The conference is technically co-sponsored by  ${\bf IEEE}$   ${\bf Gujarat}$   ${\bf Section}.$ 

The conference theme is "Towards Sustainable Energy Transition". The conference aims to provide a platform for Engineers, Researchers, Scientists  $\&\,$ Academicians to meet in a common forum to present their work, to share experiences and ideas in the areas of latest technologies, strategies and challenges faced by sustainable and energy-efficient systems and computing for a more sustainable planet. SETCOM 2025 is planned to include various tracks, which mainly focuses on the Energy, Modern power systems, Transportation and Computational Intelligence. SETCOM 2025 program will also feature Keynotes and Plenary Sessions, Technical Paper Presentations, Industry Sessions and

### Call for Regular Session and Special Session Papers

The details of call for Regular technical session as well as special session papers will be updated in the conference website. Please follow the conference link for more details. Regular sessions within the scope of the following topics, but not limited to:

#### TT1: Renewable Energy and Smart Utilities

Renewable energy sources and technology, Solar/Wind energy systems and its integration, Grid Interconnection systems, Micro grid/Smart grid control and issues, Integration of energy storage systems, Biomass, Hydrogen based sources, Energy harvesting from renewable source, Low inertia grid, Smart utility applications, Energy management strategies and Efficient power networks

#### TT2: Power Converters and Energy Efficient Machine Drives

Application of Power converter for transportation/EV/Traction drives, New power converter topologies, High power multilevel converters, AC/DC, DC/DC, DC/AC, AC/AC topologies, Modulation techniques & control, Energy Efficient Drives, Electrical Machine design and analysis, Wide band gap power devices, Advanced and sensor-less machine control, Special electrical machines

#### TT3: Electric Transportation and Energy Storage

Automotive systems (inc. electric, fuel cell, hybrid), Aerospace systems (inc. autonomous, unmanned, consumer, electric propulsion), Rail transportation systems, EV charging infrastructure, Charging standards and Guidelines, Battery management system, Energy storage & battery charging technologies, Electric Transportation in Space and Ship, Wired and Wireless charging systems, Energy storage integration with

## TT4: Modern Power System and Control

Power quality and harmonics, Power system protection, Protection and switchgear, Power system monitoring and analysis, Power system stability and reliability, Demand side management, Power system challenges and operation, Active and reactive power control, Islanding detection and control, High voltage engineering and technology, HVDC and FACTS, Solutions towards net-zero future, Energy policies and standards

## TT5: Communication Systems for Sustainable Future

Electrical quantities, embedded control systems and sensor networks, Nonlinear systems, Sustainable communication networks, Potential application of signal processing in smart grid, IoT and sustainable computing, Intelligent communication for different sustainable development

# **TT6: Applied Computational Intelligence**

Computational intelligence for power system, Computation intelligence for smart grid, Load forecasting using AI/ML/DL, Cyber security applications, Cyber-physical energy management systems, Optimization for smart grid, optimal power flow and electricity market, Cloud computing, big data analytics and block chain applications

## **Paper Submission**

The working language of the conference is English. Paper Submission Link:  $\underline{https://cmt3.research.microsoft.com/User/Login?ReturnUrl=\%2FSETCOM2}$ 

## **Publication**

All accepted, registered and presented papers will be submitted for possible inclusion to IEEE Xplore Digital Library and made available through IEEE Xplore Digital

## **CONTACT INFORMATION**

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# **Author's Guidelines**

Prospective authors are invited to submit full papers (upto 6 pages in IEEE template) in PDF format. The conference paper template can be downloaded from the link http://www.ieee.org/conferences\_events/conferences/publishing/templates.html. Further details, please visit conference website.

Conference Deadlines		
Submission of Special Session papers	Oct 25, 2024	
Submission of Full regular papers	Nov 11, 2024	
Paper acceptance notification	Dec 20, 2024	
Submission of camera-ready paper	Jan 06, 2025	
Early bird registration	Jan 06, 2025	
Final registration with 10% extra fee	Jan 13, 2025	

## CONFERENCE WELCOMES SPONSORS

Platinum, Gold, Silver, Bronze, and Other categories are available. Further details please visit the conference website

Author Category	Physical Mode	Physical Mode
Delegates from Industry/Academia (Non-IEEE Members)	INR 8000	\$ 300
Delegates from Industry/Academia (IEEE Members)	INR 7000	\$ 250
Students (Non-IEEE Members)	INR 6000	\$ 200
Students (IEEE Members)	INR 5500	\$ 150

Note: INR and \$ for National and International participants respectively

- At least one author must register to include the paper in the conference
- Receipt will be provided in the name of registered author only.
- Registration fee includes Registration kit, Online/physical Access to the sessions, Certificate, High Tea, Lunch, Gala dinner.

## **About PDEU**

Pandit Deendayal Energy University (PDEU) has been established by GERMI as a Private University through the State Act enacted on 4th April, 2007. Pandit Deendayal Energy University's 100 acre campus is located in Gandhinagar, which is the capital city of Gujarat and located 23 Km North from a well-developed city called Ahmedabad with a population of 8 million people. The city is famous for its remarkable cultural development and social life. PDEU has been promoted by Partnership of Government, Industry & Energy to create a world class University in energy education and research with special focus on the oil and gas sector. The university has further expanded its programs to address the need for trained human resource in the domains of engineering, management and humanities. It intends to broaden the opportunities for students and professionals to develop core subject knowledge which are duly complemented by leadership training interventions, thereby helping the students to make a mark in the global arena. This objective is being further addressed through a number of specialized and well-planned undergraduate, post-graduate and doctoral programs as well as intensive research projects. PDEU has been recognized with NAAC A++ Accreditation and 5 star rating by GSIRF 2022.

## **About Department of Electrical Engineering**

The Department of Electrical Engineering at School of Energy Technology (SoET), PDEU has been established in 2010 offers B. Tech, M. Tech and PhD programs in contemporary areas. The B.Tech program is accredited by NBA. The department aims to impart a strong foundation and hands-on learning to the students, and it, therefore, places greater emphasis on the practical component, industrial visits, industrial internships and projects. The diversity of academic interests is reflected in the breadth of theoretical and laboratory courses offered at undergraduate and post graduate level. The faculty members are highly competent and are actively involved in overall development of the students along with research and developments in various domains of electrical engineering. The program is supported by up-to-date curriculum based on needs of industries and national policies. Moreover, the program is unique in terms of interactive teachinglearning pedagogy, experienced faculty and fully equipped laboratories in various domains of electrical engineering. Department has specialized electrical software such as PSCAD, ETAP, MATLAB/Simulink, PSIM, MiPower and DSPACE 1103 for real time digital simulation. The department works on the long term vision "To be recognized globally for excellence in education, research and training in the field of Electrical Engineering by preparing graduates for tomorrow creating high societal



# **Gandhinagar Attractions**

Gandhinagar is the Capital city in the state of Gujarat. Gandhinagar has emerged as a city with malls and multiplexes on one side and museums and monuments of historical significance on the other side of the river. In fact, the city is a rich reservoir of historic architectural marvels. Ahmedabad enjoys a thriving cultural tradition, being the center of Gujarati cultural activities and diverse traditions of different ethnic and religious communities. The city has many historic and iconic places to visit, including Sabarmati Ashram, Sabarmati Riverfront, Stepwell, Akshardham Temple,



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