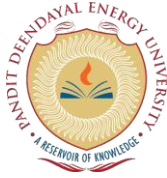


**International Conference on
Sustainable Energy Technologies and Computational Intelligence
(SETCOM 2025)**

**Department of Electrical Engineering, SoET
Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India |**

February 21 – 23, 2025



SETCOM 2025 Special Sessions on

“Artificial Intelligence and Energy Systems”

Aims & Scope of the Session (100-200 words):

The session on **Artificial Intelligence and Energy Systems** aims to explore the transformative role of AI in the energy sector, showcasing how AI technologies are driving efficiency, sustainability, and innovation. The session intends to bring together researchers, industry experts, and practitioners to discuss AI's capabilities in optimizing energy systems, integrating renewable resources, enhancing grid reliability, and managing energy consumption. The goal is to highlight the critical role AI plays in creating smarter, more resilient, and environmentally friendly energy systems, addressing the challenges of the global energy transition. This session covers the application of AI across various dimensions of energy production, distribution, and consumption, focusing on innovative solutions and real-world implementations. Key areas include: AI in Renewable Energy Integration, Smart Grids and Energy Systems Optimization, Energy Consumption Forecasting and Management, AI-Enhanced Energy Storage Systems, Electric Vehicles and Smart Charging Infrastructure, Decentralized Energy Systems and Microgrids, AI for Energy Market Optimization, AI for Advanced Energy Research

Topics of interest include, but are not limited to:

1. Hardware for data collections in energy systems
2. Data Science for energy applications
3. Hybrid data-driven and physical modeling for energy related problems
4. Intelligent control of energy systems
5. AI, energy and society
6. Biomass Conversion
7. Photovoltaic Technology Conversion
8. Solar Thermal Applications
9. Wind Energy Technology
10. Hydro Power,
11. Hydrogen Production Technology and Fuel Cells
12. Socio-economic and Policy Issues
13. Energy Resources

Special Session Organizers (names and contact emails):

1. Dr. Sunanda Sinha, Assistant Professor, Center for Energy & Environment, Malaviya National Institute of Technology, Jaipur-302017. Email Id:- sunanda.cee@mnit.ac.in
2. Dr. Amit Kumar Yadav, Assistant Professor, School of Computer Science and Artificial Intelligence, SR University, Warangal, Telangana, India. Email Id:-amitkumaryadav@sru.edu.in

Special Session Organizers (short bios with photo):



Dr. Sunanda Sinha is an Assistant Professor in Centre for Energy & Environment at Malaviya National Institute of Technology, Jaipur, Rajasthan, India. She has a notable track record in guiding students, having successfully completed the supervision of 1 Ph.D. student in 2023, with 2 ongoing. Additionally, she has guided 16 M.Tech students. In terms of research, Dr. Sunanda Sinha has published almost more than 30 research papers in reputed journals. Her research has garnered significant attention, with good number of citations, H-index and i10 index. Her research interest is mainly on renewable energy based systems. She has one patent registered with the Government of India. She has been recognized as one of the top 2% researchers globally, according to the database of Stanford University. She is also a reputed reviewer of different renewable energy related journals. Dr. Sinha bagged best paper award in conferences and Best Young Women Researcher award too. She also organized few workshops-research conclaves-IEEE conferences as team member/lead and act as session chairs, speakers in different international and national conferences. https://scholar.google.com/citations?user=O6_BjsAAAAJ&hl=en&oi=ao



Dr Amit Kumar Yadav received B.Tech in Electrical and Electronics Engineering in 2009 from Uttar Pradesh Technical University Lucknow, India, M.Tech. in Power System in 2011 and Ph.D. in artificial neural network-based prediction of solar radiation for optimum sizing of photovoltaic systems for power generation in 2016 from Centre for Energy and Environmental Engineering National Institute of Technology, Hamirpur, Himachal Pradesh, India. He worked as faculty member from 2015 to 2023 at National Institute of Technology, Sikkim. Currently, he is faculty in School of Computer Science and Artificial Intelligence at SR University Telangana India. His research interests Solar Photovoltaic, Engineering Optimization, Artificial Neural Network, Soft Computing, Wind Speed and Solar Radiation Prediction, Solar and Wind Resource Assessment, Condition Monitoring of Photovoltaic Systems. He supervised more than 10 undergraduate projects and 2 M.Tech. Projects. He is Editorial Board Member in Turkish Journal of Forecasting. He has authored 14 science citation index international journals, 10 Scopus index international journals, 10 Springer and Elsevier book chapters and 12 IEEE Conference Publications. Most of the research papers are of impact factor 10.59. The h- index of research papers is 18, i-10 index is 21, and total citation of papers is more than 2554. Research profile is among Top 2 % Researchers in Energy as per Stanford University World Ranking of Scientists and Top 2% Most Influential Scientists (Single Year) in 2023 Stanford University List: Analysis of Indian Researchers. He is reviewer of IET Science, Measurement & Technology, Neural Computing and Applications (Springer), Applied Energy (Elsevier), International Energy Journal, Electric Power Components and Systems Journal (Wiley), ISA Transactions (Elsevier), Sustainable Energy Technology and Assessment (Elsevier), Journal of Renewable and Sustainable Energy (American Institute of Physics), Jordanian Journal of Computers and Information Technology, IEEE Transaction on Industrial Electronics, International Journal of Electrical Power and Energy System (IJEP), Elsevier, Journal of Cleaner Production, Elsevier, Renewable and Sustainable Energy Review, Elsevier, Solar Energy Elsevier, Science and Technology for the Built Environment Taylor and Francis Journal.

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