

**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

“Stochastic Modeling and Economic Management Strategies for Electric Vehicle Infrastructure”

Aims & Scope of the Session:

The proposed special session on **Stochastic Modeling and Economic Management Strategies for Electric Vehicle Infrastructure** aims to address the critical challenges and novel opportunities in the planning, forecasting, deployment, and optimization of EV infrastructure. It will explore the fundamental role of stochastic models in predicting demand, optimizing charging networks, and managing uncertainties such as energy demand fluctuations and individual/user behavior. This session seeks to bridge the gap between technology, economics, reliability, and sustainability by examining effective solutions for infrastructure investment, energy consumption, and grid integration. Topics include advanced algorithms for real-time decision-making, queueing-based Markov/Non-Markov modeling, risk management in EV network expansion, and policies supporting sustainable economic growth in the EV infrastructure. By integrating stochastic modeling with economic strategies, the proposed session aspires to foster innovative approaches that drive the efficient and scalable growth of EV infrastructure worldwide.

Topics of interest include, but are not limited to:



1. Stochastic Modeling
2. Queueing Analysis
3. Optimization Techniques
4. Optimal Control
5. EV Management System
6. Solar-Powered Charging Strategies
7. Reliability Modeling
8. Availability Analysis
9. Heuristics
10. Nature-Inspired Techniques

Special Session Organizers (names and contact emails):

Dr. Shreekant Varshney
Department of Mathematics,
School of Technology (SoT),
Pandit Deendayal Energy University, Gandhinagar

Dr. Mayank Gupta
Department of Physics,
School of Technology (SoT),
Pandit Deendayal Energy University, Gandhinagar

Special Session Organizers (short bios with photo):

	<p>Dr. Shreekant Varshney is working as Assistant Professor in the Department of Mathematics, School of Technology (SoT) at PDEU (Formerly PDPU) since October 10, 2022. Prior joining to PDEU, he has worked for IFHE, Hyderabad. He has completed the Doctor of Philosophy (PhD) from the Department of Mathematics, BITS Pilani, Pilani Campus. Also, he has cleared CSIR JRF/NET twice with AIR 18 and 67, respectively. In the year 2017, he was appointed as a co-instructor by the Practice School Division, BITS Pilani, Pilani Campus and mentored students at IIRS (ISRO), WIHG (DST), and CSIR-IIP in Dehradun. He has published more than 20 research articles in several journal of repute with high impact factor like RESS (Elsevier), QTQM (Taylor & Francis), JCAM (Elsevier), AJSE (Springer), etc. He has presented many research papers at national and international conferences of repute. Moreover, in October 2019, he has been awarded with second prize in a technical writing competition organized by SIAM journal publishing.</p>
	<p>Dr. Mayank Gupta received his Ph.D. degree from IIT Delhi. He completed his M.Sc. Physics from the Department of Physics & Astrophysics, Delhi University, and graduated with a B.Sc. (Hons) in Physics from Hansraj College, Delhi University. Prior to Joining PDEU, he was working as a Project Scientist at IIT Delhi on a project of DRDO (Funding around 7 Crores). The main area of his research is Optics and Solar Energy. He has developed products for indoor daylighting, Solar thermal, and hybrid energy generation systems without solar tracking. He has published more than 16 international Research papers of high-impact factors and attended more than 10 international conferences in India and abroad. So far 7 patents has been granted and one patent is published in his name. One technology is transferred to the industry for the product developed based on his research work in the area of solar energy. He is also a scientific reviewer of several international journals such as Scientific Reports (Nature), Solar Energy (Elsevier), Optics Express(OSA), Optics Letter (OSA), Applied Optics (OSA), MDPI journals, and many others. He is on the Editorial Board of several international Journals. He has been working in collaboration with industries such as ReNew Power Pvt. Ltd. (Gurugram), Maharishi Solar Thermal Pvt. Ltd. (Noida), EP Sunsol Pvt. Ltd. (Chennai), Industrial Research and Development Unit (IRD, IIT Delhi), Foundation for Innovation and Technology Transfer (FITT, IIT Delhi) and many others.</p>