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

"Accelerating Renewable Adoption: Power System Planning from a Regulatory Perspective"

Aim: The session aims to explore the critical role of regulatory frameworks in accelerating the adoption of renewable energy through effective power system planning. It will examine how regulators can address challenges such as grid integration, policy alignment, and infrastructure development to facilitate a smoother and faster transition to renewable energy sources.

Scope:

- **Regulatory Innovations**: Strategies for creating flexible and adaptive regulatory policies that promote renewable energy integration.
- **Grid Modernization**: Approaches to planning and upgrading power grids to handle variable renewable energy sources, like wind and solar.
- **Investment and Incentives**: Exploring financial incentives, market designs, and regulatory tools to encourage investment in renewable infrastructure.
- **Energy Storage and Flexibility**: Regulatory measures to support energy storage systems and other technologies that enhance grid reliability.
- **Decarbonization Goals**: Aligning regulatory frameworks with national and international climate targets to achieve a decarbonized power sector.
- **Stakeholder Collaboration**: How regulators can collaborate with utilities, private developers, and consumers to ensure seamless renewable integration.

This session will be of interest to regulators, policymakers, utility operators, and industry professionals focused on accelerating renewable energy transitions.

Topics of interest include, but are not limited to:

1. Enhancing Production Cost and Resource Adequacy Modelling for Renewable Integration

2. Optimizing Transmission Planning for Large-Scale Renewable Integration

3. Role of Market Couplers in Power markets: Pros and Cons

4. Aligning Market Design with Decarbonization and Flexibility Needs

5. Accelerating Renewable Deployment through Agrivoltaics

6. Role of SCED (Security Constrained Economic Dispatch) and SCUC (Security Constrained Unit Commitment) in improving the accuracy of power system operations.

7. Other relevant topics like MYT (Multi Year Tariffs), Consumer accounting, policies on smart meters etc.

Special Session Organizers (names and contact emails):
(Maximum two members)

1. Dr B V Surya Vardhan – suryavardhan93@gmail.com
2. Dr Ishan Srivastava – ishan.ee@email.bbau.ac.in

Special Session Organizers (short bios with photo):

	B.V. Surya Vardhan is a Research Analyst at the Council of Energy, Environment, and Water (CEEW). He holds a PhD from VNIT (NIT Nagpur) , where his research focused on energy transition strategies using AI and machine learning for optimizing grid-integrated renewable sources. He completed his Master's in Integrated Power Systems from VNIT under a government scholarship in 2019. Vardhan has over 20 publications and is a recipient of the SERB fellowship for Young Indian Scientists. His research interests include grid integration, power scheduling, and the application of AI/ML in demand-side management and renewable energy. He has also reviewed papers for top publishers like IEEE, Elsevier, and Springer Google Scholar Id - Dr B V Surya Vardhan - Google Scholar

Dr. Ishan Srivastava received his Bachelor's degree in Electrical Engineering from Uttar Pradesh Technical University (UPTU), Lucknow, India in 2012 and Master's degree in Power System from Maulana Azad National Institute of Technology (MANIT), Bhopal, India in 2014. He has completed his Ph.D. from Visvesvaraya National Institute of Technology, Nagpur in 2022. His research areas include Distribution Automation, E-mobility, Power System Optimization, Application of Artificial Intelligence, and Machine Learning in the field of Power Systems. He has worked as Research Analyst for one year in an IPR related consultancy firm GreyB Services in Mohali India. Currently, he is working as Assistant Professor in Electrical Engineering Department UIET, Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, India. His current job responsibilities involve research and teaching.

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