

34th IEEE International Symposium on Industrial Electronics (ISIE 2025)

Special Session on

“Enhanced Power Generation and Renewable Integration Using Advanced Converter Technologies”

Organized by

Principal Organizer: Veerpratap Meena (vmeena1@ee.iitr.ac.in)
Affiliation: National Institute of Technology Jamshedpur, India

Co-organizer 1: Surya Prakash (suryaprakash.ee@nitjsr.ac.in)
Affiliation: National Institute of Technology Jamshedpur, India

Co-organizer 2: Sanjeevikumar Padmanaban (sanjeev.padma@usn.no)
Affiliation: University of South-Eastern Norway

Co-organizer 3: Josep M. Guerrero (josep.m.guerrero@upc.edu)
Affiliation: Huanjiang Laboratory, Zhejiang University, Zhejiang, China

Call for Papers

Theme: This special session focuses on enhancing power generation and renewable energy integration using advanced converter technologies. It highlights the critical role of power converters in efficiently harnessing, managing, and integrating renewable energy sources such as solar and wind into modern power systems. The session will explore cutting-edge converter topologies, advanced control strategies, and optimization techniques that improve energy conversion efficiency, reliability, and grid compatibility. Discussions will also cover thermal management, energy storage integration, and emerging trends in AI-driven and IoT-enabled power electronics. This session aims to foster innovation and collaboration in advancing converter technologies for a sustainable energy future.

Topics of interest include, but are not limited to: **(Provide a list of 5-10 special areas)**

1	Advanced Power Converter Topologies for Renewable Energy Systems
2	AI-Driven Control and Optimization of Power Converters
3	Power Electronics for Efficient Grid Integration of Renewables
4	Energy Storage Integration and Smart Charging Solutions
5	Thermal Management and Reliability Enhancement of Power Converters
6	Hybrid Renewable Energy Systems and Converter Applications

7	Modeling, Control, and Stability Analysis of Power Converters
8	IoT and Smart Metering for Renewable Energy Management
9	Emerging Trends in Wide Bandgap Semiconductor-Based Converters
10	Sustainable Development and Future Perspectives in Power Conversion Technologies

Reviewers (Provide 10-20 names with email and affiliation address)

	Name and Affiliation	Email-address
1	Prof. Josep M. Guerrero, Aalborg University, Denmark	joz@et.aau.dk
2	Prof. P. Sanjeevikumar, University of South-Eastern Norway	sanjeev.padma@usn.no
3	Prof. Frede Blaabjerg, Aalborg University, Denmark	fbl@et.aau.dk
4	Prof. Pierluigi Siano, University of Salerno, Italy	psiano@unisa.it
5	Prof. Xiangning He, Zhejiang University, China	hxn@zju.edu.cn
6	Prof. Juan C. Vasquez, Aalborg University, Denmark	juq@energy.aau.dk
7	Prof. Praveen Kumar, IIT Guwahati, India	praveen_kumar@iitg.ac.in
8	Prof. Rajan Kumar Behera, IIT Patna, India	rkb@iitp.ac.in
9	Dr. Emre Arslan, Aksaray University, Turkey	emrearslan@aksaray.edu.tr
10	Dr. Subham Sahoo, Aalborg University, Denmark	sssa@energy.aau.dk
11	Dr. Aditya Kunwar, IIT Jodhpur, India	kunwar.aditya@iitj.ac.in
12	Dr. Nishant Thakkar, Zhejiang University, China	nishantthakkar1109@gmail.com
13	Dr. Ioannis Dassios, University College Dublin, Ireland	ioannis.dassios@ucd.ie
14	Dr. Kumari Namrata, NIT Jamshedpur, India	namrata.ee@nitjsr.ac.in
15	Dr. Vinay Pratap Singh, MNIT Jaipur, India	vinay.ee@mnit.ac.in
16	Dr. Mahajan S. Bhaskar, Prince Sultan University, Saudi Arabia	sagar25.mahajan@gmail.com
17	Dr. Surya Prakash, NIT Jamshedpur, India	suryaprakash.ee@nitjsr.ac.in
18	Dr. Irfan Ullah, National University of Sciences and Technology (NUST), Pakistan	irfan.ullah@nust.edu.pk
19	Dr. Arvind Kumar Prajapati, NIT Jamshedpur, India	arvind.ee@nitjsr.ac.in
20	Dr. Nishant Kumar, B K Birla Institute of Engineering & Technology, Pilani, Rajasthan	knnishant125@gmail.com

Submission Procedure:

All the instructions for paper submission are included in the conference website: <https://ieee-isie-2025.org/>

Deadlines:

Full paper submission: February 28, 2025
 Paper acceptance notification: April 15, 2025
 Camera-ready paper submission: May 14, 2025

Please send this completed document to:

isie2025@icsevents.com