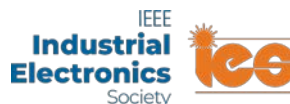




**IEEE International
Conference on Power
Electronics and
Energy (ICPEE 2025)**



Special Session 13 (SS 13)

SS 13: Next-Gen Industrial Electronics: AI, Edge Computing, and Intelligent Power Conversion for Sustainable Industries

Organized and co-chaired by:

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Call for Papers

Technical Outline of the Session:

This special session focuses on the convergence of artificial intelligence (AI), edge computing, and intelligent power conversion technologies in industrial electronics for sustainable and smart manufacturing. It aims to showcase innovations in real-time monitoring, adaptive control, predictive maintenance, and digital twin applications powered by AI and embedded intelligence. Emphasis will be given to low-latency edge devices, cyber-physical integration, and energy-efficient industrial power systems. The session welcomes original contributions that demonstrate how AI and intelligent electronics are transforming conventional industries into autonomous, adaptive, and greener systems aligned with the goals of Industry 5.0 and net-zero emissions.

Topic of the Session includes, but are not limited to:

- ❖ AI and Edge Computing for Industrial Automation and Control
- ❖ Intelligent Power Conversion and Smart Inverters in Industrial Systems
- ❖ Digital Twins and Predictive Maintenance for Industrial Energy Systems
- ❖ Cyber-Physical Integration for Industry 5.0 Applications
- ❖ Energy-Efficient and Adaptive Power Electronics for Sustainable Manufacturing

Important Dates:

Special Session Paper Submission Due Date: 15.08.2025

Notification of Paper Acceptance Date: 31.08.2025

Camera Ready Paper Submission Due: 15.10.2025

Author guidelines areas per regular paper submission.

IEEE Template

Submission Portal

<https://icpee.kiit.ac.in/special-sessions/>

For queries, email: icpee.kiit@gmail.com