



**1st international Conference on Power
Electronics Converters for Transportation
and Energy Applications (PECTEA-2025)**
18th – 21st June 2025, IIT Bhubaneswar, India



Call for Special Session

Title of the Proposal: "Advances in Smart Power Converters for Electric Mobility and Renewable Energy Integration with Artificial Intelligence and Machine Learning"

Technical Outline of the Session:

The proposed special session, "Advances in Smart Power Converters for Electric Mobility and Renewable Energy Integration," will focus on the latest technological innovations in power electronic converters that cater to transportation and energy applications. With the rise of electric mobility and renewable energy sources, it is essential to explore efficient, scalable, and robust power conversion technologies. This session aims to bring together researchers and industry professionals to share their findings, foster collaboration, and discuss challenges and solutions in this rapidly evolving domain.

Topics of the Session

1. Advanced Power Conversion Techniques for EVs and Hybrid Vehicles
2. Smart Grid Integration of Renewable Energy through Power Converters
3. Innovative Thermal Management in High-Power Converters
4. Bidirectional Converters for Vehicle-to-Grid (V2G) and Grid-to-Vehicle (G2V) Applications
5. Control Strategies and Optimization for Energy-Efficient Power Converters

Organizers

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