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

Special Session on

"Active Distribution Networks: Challenges and Solutions"

Organized by

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Call for Papers

Distribution systems are evolving from traditional passive networks into Active Distribution Networks (ADNs), which are characterized by bi-directional power flow, the high penetration of Inverter-based Resources (IBRs), storage capabilities and sophisticated control strategies. Industrial electronics play a pivotal role in the advancements of ADNs, facilitating efficient energy management, adaptive controls, and seamless integration of renewables. Multiple layers of communications, sensing and computation are being integrated into ADNs for monitoring, control and protection of a variety of components and critical operations. On the other hand, this enhanced dependency on information and communication technologies increases the exposure of ADNs to cyberattacks. This special session aims to capture the latest research advancements in the area of cybersecurity for ADNs.

Topics of interest include but are not limited to:

1	Industrial electronics-based resilient and intelligent ADNs for adaptive energy management
2	Drivers and enablers of ADNs; Electric Vehicles (EVs), Microgrids, Smart Homes, DERs, etc.
3	Communication Protocols in ADN Security
4	Secure Integration of Inverter-Based Resources
5	Sustainable energy solutions with ADNs and emerging technologies
6	Battery Energy Storage Systems (BESSs) in ADNs
7	Cyber-Physical Risk Assessment and challenges in Distribution Systems
8	Artificial Intelligence and Machine Learning to modernize ADNs
9	Achieving decarbonization goals with active distribution networks and innovative technologies

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Submission Procedure:

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

Deadlines:

Full paper submission: March 31, 2025
Paper acceptance notification: April 15, 2025
Camera-ready paper submission: May 14, 2025

Please send this completed document to:

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