

EEE-AM 2023 Special Session 02

TITLE

Intelligent systems and advanced methodologies for resilient and cyber-secure energy networks

SESSION CHAIRS

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DESCRIPTION

Climate and sustainability targets, economical constraints and the diffusion of distributed renewable energy sources make mandatory the development of adequate planning, management, and control actions and techniques to ensure a secure management of energy networks in the medium- and long-term.

Intelligent systems and advanced methodologies are needed to guarantee reliable and resilient energy systems by preserving both the security and the cybersecurity.

The main aim of this Special Session is to obtain a complete overview of methodologies, technologies and control logics for addressing security and cyber-security of energy systems issues.

This special session aims at gathering contributions able to cope with the above topics. The topics of interest include, but are not limited to:

- Smart grid.
- Cyber security.
- Control and management strategies for multi-vectors smart grid and energy systems.
- Technologies for reliable, secure and resilient energy grids.
- Protection and communication solutions for secure and cyber-secure energy grids.
- Methodologies and algorithms for anomaly and fault detection and prediction.
- Forecasting techniques for energy distributed resources.
- Quantum and traditional cryptography for cybersecure energy systems.
- Quantum machine learning.