

INTERNATIONAL CONFERENCE ON SMART AND SUSTAINABLE TECHNOLOGIES





Split - Bol, June 25–28, 2024 Location: Bol, Hotel Elaphusa

Special Session:

Smart Distributed Electrical Network:
Opportunities and Challenges for
Integration of Renewable Energy Systems





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CALL FOR PAPERS

A future 'Smart Distributed Electrical Energy Network' will serve as a dynamic network for multi-directional energy flows, linking widely distributed small capacity intermittent renewable energy systems at consumer level (distribution network) and centralized higher-capacity power generators, facilitating active participation of customer choice for demand side management, energy production / storage, and providing real-time information on the performance and optimal operation of the smart electrical energy network.

In this special session, high quality research articles are invited on the following topics:

- Intelligent integration of renewable energy sources within the distributed network.
- Machine learning techniques for load and generation predictions, and for operation and control.
- Distributed network interaction performance of renewable energy systems (e.g. solar photovoltaic system, fuel cells, distributed generators), power conditioning devices for intelligent integration of renewable energy systems.
 - Demand side management, control and operation of distributed generators.
 - Energy storage (e.g. battery, hydrogen, etc.) within the distributed network.
 - Smart micro-grid architecture (AC as well as DC micro-grid).
 - Impact of electric vehicles charging management on distributed network.

- Techno-economics of distributed generators.

- Energy pricing systems for promotion of smart distributed network.



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