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SPECIAL SESSION XXVI

Smart Strategies for Reliability, Technical and 3E Assessment in Renewable Energy Systems

ORGANIZED AND CHAIRED BY

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The integration of renewable energy sources into the power grid is a pivotal component of global efforts to mitigate climate change and ensure a sustainable energy future. In this context, smart and innovative strategies are crucial to ensure the successful deployment and sustained performance of renewable energy systems from a reliability, technical and 3E (energy, economic and environmental) perspective.
This special session aims to ensure the reliability and the 3E sustainability of renewable energy systems by exploiting smart strategies and methodologies. The session emphasizes the crucial need for a comprehensive approach that considers both technical, environmental, and financial aspects to facilitate the seamless integration of renewable energy into power grids.
Researchers, engineers and experts in the field will discuss cutting-edge methods, including advanced modeling, data analytics, fault detection and classification, and smart grid technologies to enhance the performance and profitability of renewable energy installations.
Topics of interest:

- **Advanced System Modeling and Diagnostics Applications**
- **Fault detection, classification and, losses and yield estimation**
- **Artificial Intelligence and Machine Learning methods for predictive maintenance**
- **3E assessment of renewable energy systems**
- **Data analytics**
- **Digital Twin approaches**

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