1. Proposed Special Session Title

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Enabling Decarbonized Societies and Communities through Smart Technology Solutions for Green Energy Systems

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Session Abstract

Decarbonization is a critical goal for the future, and green energy solutions are key to achieving it. This call for papers seeks to explore the latest innovations and challenges and studies implementing smart technology solutions to enable the integration of green energy systems into the existing energy infrastructure. Smart technology solutions can optimize energy production and consumption, improve energy efficiency, and enable better management of the energy grid. These solutions can also create new business models for energy systems that prioritize sustainability and affordability. This shift to green energy systems enabled by smart technology solutions can foster a more sustainable and resilient society, with reduced carbon emissions and increased reliance on renewable energy sources.

Scope of this call shall include:

- Intelligent integration of Renewable Energy Systems
- Building Energy Systems and Electric Vehicles
- Energy Storage Systems
- Design and performance analysis of Grid-tied converters
- Economic dispatch and frequency control of decarbonized power systems
- Power quality analysis in modern power systems
- Techno-economic analysis for energy systems
- Policy and regulatory aspects of decarbonized energy systems
- Smart grid-based communication and P2P power trading
- Smart Cities and Villages