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Digest Submission Deadline

spec-ieee.org
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For More Information

November 26-29, 2023

Conference Date

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EMERGING POWER CONVERSION TECHNOLOGIES AND CONTROL FOR MICROGRIDS

Microgrids and nanogrids are highly efficient and flexible technology that aimed to promote an easy integration of loads and renewable power sources. Depending on the power level such concepts could be applied either for a single building or for large residential districts, widely promoting the adoption of distributed power generation. Currently, new power converter topologies, energy management, and standards are interesting topics for the academy and industry. Addressing these topics, the main focus of this special session is to discuss technical challenges, and present R&D results related to Emerging Power Conversion Technologies, Control, and Operational Aspects for Microgrids.

Therefore, we would like to invite academics and industry researchers to join us and contribute new ideas, exchange information, and promote microgrid technologies at COBEP/SPEC 2023.

Topics of interest include, but are not limited to:

- EMERGING POWER CONVERTER TOPOLOGIES FOR DC MICROGRIDS
- DC AND HYBRID AC/DC MICROGRIDS ARCHITECTURES
- NANOGRIDS AND RESIDENTIAL MICROGRIDS AND THEIR DESIGN METHODOLOGIES
- SOLUTIONS RESOLVING INTEROPERABILITY ISSUES AND FACILITATING DEPLOYMENT OF MICROGRIDS
- POWER ELECTRONICS SYSTEMS FOR EFFICIENT INTEGRATION OF DISTRIBUTED ENERGY GENERATORS, ENERGY STORAGES AND LOADS INTO MICROGRIDS
- ACTIVE POWER FILTERING, LOAD-SHARING, ISLANDING OPERATION
- CONDITION MONITORING, INTELLIGENT PROTECTION, FAULT DIAGNOSIS AND SELF-HEALING
- OPERATION AND CONTROL OF INTERCONNECTED MICROGRIDS (I.E., MICROGRIDS FOR DISTRICTS)
- POWER MANAGEMENT STRATEGIES, DISTRIBUTED CONTROL AND/OR DECENTRALIZED DECISION MAKING