



Special Session on

***“Advancements in Fault Diagnosis and Condition Monitoring of Power Converters for Renewable Energy Systems”***

Special Session Organizers:

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**Technical Outline of the Session and Topics:**

During last decades, the electricity generation from renewable energy sources, and especially from solar and wind sources, has gained a larger and larger interest. The continuous cost reduction of renewable energy technologies has contributed to the growth and geographic expansion of renewable power capacity significantly. Thus, the reliability and availability of such systems represent today a key issue. However, renewable energy systems usually have a complex structure, and therefore they are susceptible to many types of faults in their different components. Consequently, there is an increasing need for new fault diagnosis methods and fault tolerant control approaches to support the broader and broader deployment of such systems.

This special session is focused on advancements in fault diagnosis, fault tolerance and condition monitoring especially devoted to power converters for renewable energy applications.

The scope of this Special Session includes but is not limited to the topics below:

- Fault diagnosis in power converters for renewable energy systems
- Post-fault strategies and remedies for continuity of service and reliability
- Model-, signal processing-, and other data-driven fault-diagnosis approaches
- Multiple fault-diagnosis approaches
- PV generators fault-diagnosis
- Fault detection and isolation in sensors

**Submission of papers:** deadline follows the deadline for the regular papers.

All the instructions for paper submission are included in the conference website:  
<https://www.ieee-sdemped.org/>