



**CALL FOR PAPERS
SPECIAL SESSION ON**

Diagnosis and Fault Tolerant Control Techniques Applied on Power Electronics Converters

**for ICCAD'21
July 5-7, 2021 Grenoble-France**

Session Co-Chairs:

- Prof. Kouzou Abdellah, LAADI laboraoty, Djelfa University, Algeria. kouzouabdellah@ieee.org
- Prof. Vicenç Puig, Polytechnic University of Catalunya, Spain. vicenc.puig@upc.edu
- Prof. Hafaifa Ahmed, LAADI laboraoty, Djelfa University, Algeria. hafaifa.ahmed.dz@ieee.org
- Prof. Nabil Derbel, ENIS, Sfax, Tunisia. n.derbel@enis.rnu.tn

Session description:

This special session deals with two main topics, which are required to be applied on power electronics converter applications, which nowadays plays crucial role in almost recent and innovative industrial technologies and their applications such as; Electrical Machine Control (EMC), Electrical Vehicles (EV), Energy Conversion Management (ECM), Grid Tied Renewable Energy Sources (GTRES), Flexible AC Transmission Systems (FACTS), High voltage Direct Current (HVDC) power transmission system, Multi-level Inverters for high power application and new and innovative converter topologies. The first topic is the diagnosis of faults, failures and malfunction based on the identification, localisation and isolation of faults during mode operation. The second topic is the fault tolerant control technique that aims in ensuring continuous operation under faults, especially in sensitive and high power industrial processes. The main goal of this special session is to bring together academics, researchers, PhD students, practitioners and industrial partners who are interested in these emergent topics, which have attracted more attention in the last recent years due to their importance in fulfilling the requirements of the new topologies and technologies of power electronics converters such as their lifespan and healthy operation mode in real industrial applications. This special session will cover the innovative researches conducted within these topics for achieving real-time diagnosis and fault tolerant control that are expected to ensure an improved capability in terms of performances, power quality, costs saving and to overcome the drawbacks found in the basis topologies and new topologies of power electronics converters.

The topics of interest include, but are not limited to:

- Power electronics convert for electrical machines
- Multi-level converters
- Multi-phase multi-level converters
- Conventional topologies of power electronics converters
- New and innovative topologies of power converter
- Grid tied converter for renewable energy sources
- Converters in energy management systems

- Electrical Vehicles
- FACTs
- HVDC electric power transmission system.
- Inter-connection in power systems power electronics based.
- Other power electronics converter topologies and applications

SUBMISSION

Papers must be submitted electronically for peer review by: **March 31, 2021**

<http://www.iccad-conf.com/submission.html>

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

For further information please send email to: kouzouabdellah@ieee.org

Technical sponsors

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