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Special Session on Fault Tolerant Machines and Drives

Organized and co-chaired by

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Call for Papers

In recent years, the fault-tolerant control of electric drives has gained increasing interest due to the growing use of electric machines in many applications, including high-power, safety-critical and automotive applications. In numerous situations, incorporating a fault-tolerant control strategy is a crucial aspect to guarantee system reliability, carry out preventive maintenance, and minimize the expenses of potential work interruptions. Several approaches have been proposed to evaluate the state of the machine and to apply some fault-tolerant strategies, such as setpoint change, complete shutdown, or control reconfiguration. This special session aims to collect papers presenting unpublished and innovative studies on fault-tolerant electrical machines and drives, as well as their diagnostic techniques for state monitoring. Prospective authors are invited to submit original papers on the following topics, but not limited to:

- Fault-tolerant topologies of electric machines and their control strategies.
- Topologies of electric drives with inherent fault tolerance for phase/switch faults.
- Fault detection for electric motor drives in steady state and/or transient conditions.
- Artificial intelligence-based fault detection for motor drives.
- Fault-tolerant multiphase machines.

Submission of papers: Paper submission follows the rules of regular papers. All the instructions for paper submission are included on the conference website <https://icem.cc/2024>