

Special Session on

“Multiphase machines and drives for high-reliability applications”

Organized by

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Call for Papers

Recently, multiphase drives become a very serious candidate comparing to classical three-phase ones thanks to their inner properties such as: high functional reliability, flexible power sharing (more than three), high-power low voltage and high integration capability (integrated drives). Various applications have used multiphase drives in different domains because of these cited points. The goal of this special session is to invite researchers to share their latest knowledges and achievements in the field of multiphase drives and their applications.

Topics of the Session include, but are not limited to:

- Fault-tolerant control strategies for multiphase drive systems for industrial applications
- Control under constraints of the drive
- Integrated multiphase variable speed drives
- PWM modulation techniques
- Multiphase machine design
- Impact of machine design to control strategy and vice versa
- Fault detection and identification process for multiphase drives
- Sensorless control for multiphase drives
- Artificial Intelligence-based control for multiphase drives
- Fault-tolerant power electronics topologies