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Special Session on

Multiphase Machines Design and Control

Organized and co-chaired by:
Dieter Gerling, Bundeswehr University Munich, Germany, dieter.gerling@unibw.de
Wei Xie, Haixi Institutes, Chinese Academy of Science, China, wei.xie@fjirsm.ac.cn

Call for Papers

With merits of high efficiency, high adaptability and high safety level, the multiphase electrical drive systems have received widespread attention from academic and industrial fields in the past few decades. And, most of them have remarkable application prospect in more and more industrial applications, such as electric ship power generation systems, EV/HEV, rail transportation and so on. In order to achieve high power density, high torque density, wide speed-range operation, fault-tolerant operation, and other specific requirements for electrified applications, innovations for multiphase electrical drive systems are expected.

Currently, there are technical difficulties about multiphases motors to be solved, such as high torque capability at low (zero) speed, low torque ripple and control strategy to achieve high adaptability and high efficiency in complex working conditions etc. To overcome the difficulties and develop breakthrough technologies, a platform for researchers to discuss and share ideas is crucial.

The goal of this special session is to bring researchers together to share their research findings and discuss future developments in the field of multiphase electrical drive systems. Therefore, innovative topologies, new methods for modeling and analysis, advanced control strategies, fault diagnosis and reliability assessment, and new applications are strongly welcomed.

Topics of interest include, but are not limited to:

- Innovative topologies of motors
- FEA for modeling and analysis of multiphase electrical drive systems
- Advanced control strategies for multiphase electrical drive systems
- Variable phase machines
- 48V and low-voltage multiphase machines
- Fault diagnosis and reliability assessment
- New applications of multiphase electrical drive systems
- Other related topics.

Submission of papers: deadline follows the deadline for the regular papers.
All the instructions for paper submission are included in the conference website:
http://www.icem.cc/2020