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Advanced Design and Control of Multiphase Machines

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Deadline for manuscript submissions:
closed (15 October 2023)

Message from the Guest Editors

Dear Colleagues,

With increased phase numbers and abundant optimization dimensions, multiphase machines are gaining popularity in applications of ship propulsion, spacecrafts, aircrafts, electric vehicles, wind power generation, etc. Compared with traditional three-phase machines, multiphase machines can have higher fault-tolerant ability, lower electromagnetic interference, and improved degrees of control freedom. In both motor design and motor drive fields, there are emerging novel solutions to highlight the advantages brought by multiple phases.

This Special Issue will deal with the advanced design and control of multiphase machines. Topics of interest for publication include but are not limited to:

- Modelling and design
- Novel topologies and structures
- Advanced drive and control methods
- Noise and vibration
- Novel pulse width modulation methods of multiphase converters
- Electromagnetic compatibility technologies for multiphase drive systems
- Fault diagnosis and fault-tolerant control of multiphase drive systems
- Condition monitoring and health management of multiphase machine systems
- Artificial Intelligence applications in multiphase machine systems

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Message from the Editor-in-Chief

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