# **Special Issue**

## Multiphase Machines: Converter Control and Innovative Exploitation

### Message from the Guest Editor

Multiphase electrical motors are increasingly applied in industry as high-power drives. The central theme of this Special Issue focuses on novel types and constructions of multiphase electrical machines; novel topologies and structures of multiphase converters; advanced control methods of multiphase machines; and modern applications of multiphase machines in electrical vehicles, industrial drives and renewably energy systems. Topics of interest may include but are not limited to:

- Modelling and design of multiphase machines;
- Novel topologies and structures of multiphase converters;
- Vector control, sliding mode control, fuzzy and neural control and other advanced control methods of multiphase machines;
- Fault diagnosis and fault-tolerant control of multiphase drive systems;
- Artificial intelligence applications in multiphase machine systems;
- Parameter estimation and efficiency optimization of multiphase machines;
- Applications of multiphase machines in electrical vehicle drives;
- Wind energy conversion systems with multiphase machines and multiphase converters;
- Ship propulsion motor drives with multiphase machines and multiphase converters;

#### Guest Editor

#### Dr. Krzysztof Pienkowski

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## Deadline for manuscript submissions

closed (20 February 2024)



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## Message from the Editor-in-Chief

*Machines* is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso CISE - Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

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