

## Special Issue

# Design, Performance Optimization and Application of Permanent Magnet Motors

### Message from the Guest Editors

Over the past few decades, driven by advancements in rare-earth permanent magnets (PMs), permanent magnet motors have attracted significant attention and found widespread application in various fields. This Special Issue aims to provide a platform for researchers to share their latest findings related to the design, performance optimization, and application of permanent magnet motors. The Special Issue covers a wide range of topics, including the following: 1) new topology designs for permanent magnet motors, such as flux-modulated motors, variable-flux motors, multi-port motors, and others; 2) performance optimization for permanent magnet motors, such as multi-objective optimization, multi-physics optimization, surrogate-model-based optimization, and others; and 3) new applications of permanent magnet motors, such as low-speed direct-drive motors, arc motors, PCB motors, rotary-linear motors, and others. Submissions of original research articles related to these topics are welcome.

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### Guest Editors

Dr. Yiming Shen

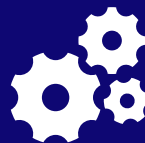
Dr. Xuhui Zhu

Dr. Shengdao Zhu

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### Deadline for manuscript submissions

30 September 2025



## Machines

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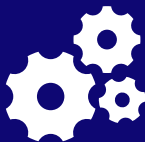


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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso  
CISE - Electromechatronic Systems Research Centre, University of  
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