

# Special Issue

## Smart Design and Maintenance of Electrical Machines

### Message from the Guest Editors

Rotating electrical machines are widely used in key sectors such as industry, energy, and transportation, with a growing presence in modern mobility applications. Some of these applications pose challenges that traditional design and maintenance approaches fail to address. In the digital era, with the increasing demand for sustainability, new design and maintenance paradigms are emerging. The aim of this Special Issue is to present the latest advancements in emerging paradigms for the design and maintenance of electrical machines. Original research on more traditional approaches, as well as review articles, are also welcome. Possible research topics include, but are not limited to, the following:

- The design of electrical machines for emerging applications;
- Special electrical machines;
- The design optimization of electrical machines;
- Data-driven design;
- The simulation of abnormal operation in electrical machines;
- Smart sensors for electrical machine maintenance;
- Advanced signal processing tools;
- Data-driven fault diagnosis and condition monitoring;
- Vibration monitoring;
- Electrical signature analysis.

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### Guest Editors

Dr. Jose E. Ruiz-Sarrio  
Prof. Dr. Claudia Martis  
Prof. Dr. Jose Alfonso Antonino-Daviu

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### Deadline for manuscript submissions

31 January 2027



## Machines

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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  
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JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1  
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manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).