

Special Issue

Control of Power Electronic Converters and Motor Drive Systems

Message from the Guest Editors

In this Special Issue, we aim to bring together cutting-edge research addressing modeling, control, optimization, and implementation challenges in power electronic converters and motor drive systems. We invite contributions presenting novel control methods, advanced modulation techniques, intelligent and learning-based controllers, high-performance drive systems, and application-oriented studies demonstrating improved system performance. To present modern control, operation, and optimization strategies for converters and motor drives and to address challenges related to efficiency, robustness, safety, and integration into emerging applications.

- Power converters for industrial applications.
- High-performance electric drive systems.
- AI- and ML-driven converter control.
- Model predictive control (MPC).
- Wide-bandgap devices (SiC/GaN) and fast-switching control.
- Adaptive and non-linear controllers.
- Grid-interfaced converter control.
- Electric and hybrid vehicle drive.
- Renewable energy integration.
- Energy storage systems.

Guest Editors

Dr. Mahmoud A. Mossa

Electrical Engineering Department, Faculty of Engineering, Minia University, Minia 61111, Egypt

Dr. Chojaa Hamid

Industrial Technologies and Services Laboratory, Higher School of Technology, Sidi Mohamed Ben Abdellah University, Fez 30000, Morocco

Deadline for manuscript submissions

31 July 2026



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



mdpi.com/si/264081

Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)





Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



[mdpi.com/journal/
machines](https://mdpi.com/journal/machines)



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.

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1
(Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).