

Special Issue

Modeling and Optimal Control for Electrical Machines

Message from the Guest Editor

This Special Issue is dedicated to presenting and disseminating recent advances in the theory, modelling, optimal control, design, and application of both rotating and linear electrical machines. The scope of this Special Issue includes, but is not limited to, the following topics:

- Modelling, simulation, and analysis methods for electrical machines;
- Optimal control strategies for rotating and linear machines;
- Machine optimisation processes, including design and performance enhancement;
- Advanced supply and control techniques for electrical machines;
- Integration of power electronics systems for high-performance control;
- Hybrid excited and unconventional machine topologies in the context of control optimisation;
- Thermal and mechanical analyses supporting accurate modelling and control;
- Applications of electrical machines in renewable energy and electromobility as benchmarks for modelling and control approaches;
- Novel computational tools and frameworks for system-level optimisation;
- Case studies on permanent magnet synchronous, synchronous reluctance, induction, switched reluctance, brushless DC, and linear machines, with emphasis on modelling and control aspects

Guest Editor

Prof. Dr. Marcin Wardach

Faculty of Electrical Engineering, Department of Electrical Machines and Drives, West Pomeranian University of Technology in Szczecin, al. Piastów 17, 70-310 Szczecin, Poland

Deadline for manuscript submissions

5 March 2026



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/254674

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



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



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)