

Special Issue

Intelligent Operation and Control for Sustainable Power and Energy Systems

Message from the Guest Editors

This Special Issue focuses on recent advances in intelligent operation, monitoring, fault detection and diagnosis, self-healing mechanisms, and cybersecurity for sustainable power and energy systems. It presents novel theories to enhance operational management and automation. Contributions with implementation and validation are especially encouraged. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

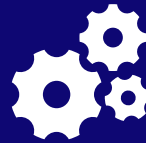
- Fault detection, diagnosis, and predictive maintenance of electrical machines and electromechanical energy conversion systems.
- Multiphysics and AI-assisted modeling of electromechanical and renewable energy systems.
- Renewable energy integration, grid coordination, and advanced automation strategies.
- Digital Twin and data-driven modeling for real-time monitoring and intelligent control.
- Self-healing and resilience strategies for renewable-integrated power grids.
- Optimization techniques for energy efficiency, dynamic performance, and intelligent operation of sustainable energy systems.
- Cybersecurity and secure control architectures for sustainable power systems and smart grids.

Guest Editors

Dr. Mahmoud Elsadd
Prof. Dr. Mohamed Eladawy
Prof. Dr. Ayman Samy Abdel-Khalik

Deadline for manuscript submissions

30 September 2026



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 6.1



mdpi.com/si/273725

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 6.1



[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 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).