

Special Issue

Power Electronics Technologies for Aerospace Applications

Message from the Guest Editors

This Special Issue aims to introduce a guideline of Power Electronics Technologies for Aerospace Applications, involving innovative contributions from academics, scientists, and researchers. The topics of interest are related, but not limited to:

- Light-weight and high-efficiency power converters;
- Power converters to deal with high dv/dt and di/dt operation;
- Digital and analogue control platforms for power converters. Monitoring, control, and protection of power converters;
- High-performance materials for coupling filters, cables, connectors, and cooling units of power converters;
- Power electronics for interfacing power generation systems and for power management;
- Innovative motor drivers for electric propulsion systems;
- Solid-state systems, circuits, and protections (to replace conventional electromechanical devices);
- Silicon carbide (SiC), gallium nitride (GaN), and high-electron mobility transistors (HEMTs) devices for aerospace applications;
- Space effects on wide-bandgap (WBG) power devices;
- Power Electronics systems for flight control;
- Energy storage technologies for aerospace applications (e.g., solid-state batteries);
- Power electronics for high reliability communication technologies.

Guest Editors

Dr. Vítor Monteiro

Algoritmi Research Centre, Department of Industrial Electronics,
University of Minho, 4800-058 Guimarães, Portugal

Prof. Dr. Joao L. Afonso

Department of Industrial Electronics, School of Engineering, University
of Minho, 4800-058 Guimaraes, Portugal

Deadline for manuscript submissions

20 January 2026



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/144860

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)