

## Special Issue

# Power Electronics Applications in Aerospace Technologies

### Message from the Guest Editors

The development of More Electric Aircraft is related to the replacement of hydraulic and pneumatic systems by electric systems. As a consequence of the increase in electrical power demand, higher voltages in the electric distribution system have been proposed (HVDC, HVAC). Energy management and bidirectional power transfer are two closely related concepts, which are expected to have an impact at the architecture level, since they increase systems' availability, and thus, architecture redundancy is increased as well. As an example, a bidirectional power converter that feeds avionics loads and charges batteries might be used to feed the HVDC bus when required. Power electronics design in aeronautic applications must evolve according to current needs, so investigation into state-of-the-art technology implementation in power converters must be carried out. High efficiency, high power density, and aeronautical standards compliance must be targeted. Power module parallelization can be used to increase power or voltage rating and shows several potential advantages compared to monolithic converters.

### Guest Editors

Prof. Dr. Maria Angeles Martin Prats

Escuela Técnica Superior de Ingeniería, Electronics Engineering Department, Universidad de Sevilla, 41092 Seville, Spain

Dr. Pablo Gonzalez

Escuela Técnica Superior de Ingeniería, Electronics Engineering Department, Universidad de Sevilla, 41092 Seville, Spain

### Deadline for manuscript submissions

closed (15 July 2021)



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/42592](https://mdpi.com/si/42592)

*Energies*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto: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)