

Special Issue

Reliability of Power Electronics Devices and Converter Systems

Message from the Guest Editors

Power electronics, such as renewable energy generation systems, electric vehicles, and smart grids, are key in energy conversion and management.

However, industrial experience indicates that the power converter is one of the weakest components in the system. Thus, there is a pressing need to improve the reliability of power converters and reduce the system downtime induced by the failure of power converters.

The failure mechanism, thermal network model, junction temperature estimation, lifetime prediction, condition monitoring, and power electronics system thermal control become increasingly important. This Special Issue aims to present and disseminate the most recent advances related to the reliability of power electronics systems. Prof. Dr. Jun Wang

Guest Editors

Prof. Dr. Wang Jun

Dr. Jun Zhang

Dr. Kun Tan

Dr. Jingwei Zhang

Dr. Hengyu Yu

Deadline for manuscript submissions

closed (31 July 2025)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/215585

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)