



## Modeling and Mitigation of Reliability Issues in Power Converters for Modern Power Grids

Guest Editors:

**Dr. Tohid Rahimi**

**Prof. Dr. Ayan Mallik**

**Dr. Hossein Dehghani Tafti**

**Prof. Dr. Josep Pou**

Deadline for manuscript  
submissions:

**closed (15 August 2022)**

### Message from the Guest Editors

We cordially invite you to submit your original works and research papers to this Special Issue. Potential topics include but are not limited to:

- Fault diagnostics, prognostics, and mitigations for power converters;
- Lifetime model formulations for power components;
- Fault-tolerant strategies and designs;
- Real-time health conditions of circuit elements;
- Identification and introduction of different factors that impact the reliability of power converters;
- Heat sink approaches and cooling system designs;
- Reliability-driven multiobjective design optimization of power converters;
- Practical reports of reliability issues in power converters of transportation electrification segment, including but not limited to electric vehicles, electric ships, and more electric aircrafts;
- Review papers related to the reliability and fault-tolerant capability of power converters;
- Software tools for reliability analyses;
- Artificial Intelligence applications for reliability-based design of power electronic systems.





# energies



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Enrico Sciubba

Department of Mechanical and  
Aerospace Engineering,  
University of Roma Sapienza, Via  
Eudossiana 18, 00184 Roma, Italy

## 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.

## 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)

## Contact Us

---

*Energies* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://twitter.com/energies_mdpi)