

## Special Issue

# Power Electronics Architectures and Associated Control for Efficient and Reliable Solar PV Systems

### Message from the Guest Editors

Within this subject, this Special Issue is focused on conversion, control and power electronics architectures for monitoring an optimal and safe production of PV systems. Topics of interest for publication include, but are not limited to:

- Isolated and non-isolated DC-DC converter architectures for PV systems;
- Modeling and control for optimal electrical energy production in PV systems;
- Design and optimization of efficient converters for PV systems;
- Multi-input DC-DC converters for PV systems with energy storage;
- Maximum power point tracking techniques;
- Differential power processing converter architectures in PV systems with mismatched modules;
- Distributed converter architectures at PV module level;
- Fault diagnosis and fault tolerant control of converter architectures for PV systems;
- PV systems with fault tolerant capabilities: power and energy architectures, energy management, advanced control method under healthy and faulty conditions, and islanded PV systems.

### Guest Editors

Prof. Dr. Philippe Poure

Institut Jean Lamour (UMR7198), Université de Lorraine, Campus Artem, BP 50840, F-54511 Nancy, France

Prof. Dr. Shamsodin Taheri

Department of Computer Science and Engineering, Université du Québec en Outaouais, Gatineau, QC, Canada

### Deadline for manuscript submissions

closed (31 January 2024)



## Solar

an Open Access Journal  
by MDPI

CiteScore 4.3



[mdpi.com/si/119301](https://mdpi.com/si/119301)

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

[mdpi.com/journal/  
solar](https://mdpi.com/journal/solar)





# Solar

---

an Open Access Journal  
by MDPI

---

CiteScore 4.3



[mdpi.com/journal/  
solar](https://mdpi.com/journal/solar)



## About the Journal

### Message from the Editor-in-Chief

*Solar* is a new international, open access journal for solar technologies. Climate change is real! Therefore, fast and wide-spread application of solar technologies is of utmost importance. Consequently, *Solar* aims to publish articles which make a real, influential, and often cited contribution not only to basic research and development, but also to the application of photovoltaics as well as to solar thermal conversion. In addition, articles discussing the politics, economy, environmental, and social issues of solar technologies are also welcome. We encourage authors to submit high-quality original articles, letters, and review articles. Our editorial and technical team guarantees a high-quality, fast reviewing process, fast publication, and promotion. With your articles, our journal will rank among the best soon!

---

### Editor-in-Chief

Prof. Dr. Jürgen Heinz Werner

Institute for Photovoltaics and Research Center SCoPE, University of  
Stuttgart, 70569 Stuttgart, Germany

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus and other databases.

#### Journal Rank:

CiteScore - Q2 (Environmental Science (miscellaneous))