Special Issue

Photovoltaic Systems: Latest Advances and Prospects

Message from the Guest Editors

The application of solar energy has rapidly increased due to the increase in the demand for clean energy to reduce greenhouse gas emissions. Solar-energy systems are challenging due to their low performance efficiency and their strong dependency on weather conditions. In this Special Issue, photovoltaic solar systems will be investigated from a thermodynamic point of view in order to enhance their performance. Energy, exergy, economic and environmental analysis will be presented for PV systems. Different PV cooling techniques will also be presented to enhance PV performance. The recently proposed materials for PV solar cells will also be reviewed from a performance point of view. This Special Issue will cover the following topics:

- Thermodynamic analysis of PV systems;
- Material of PV solar cells:
- Cleaning techniques of PV solar cells;
- Standalone PV systems;
- Hybrid PV systems;
- Applications of PV systems;
- Configuration of PV systems;
- Solar PV industry.

Detailed information:

https://www.mdpi.com/journal/applsci/special_issues/R4SJ5WSY68

Guest Editors

Prof. Dr. Mohamed M. Awad

Mechanical Power Engineering Department, Faculty of Engineering, Mansoura University, Mansoura 35516, Egypt

Prof. Dr. Mamdouh E.H. Assad

Department of Sustainable and Renewable Energy Engineering, University of Sharjah, Sharjah P.O. Box 27272, United Arab Emirates

Deadline for manuscript submissions

closed (30 September 2023)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/155565

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applisci@mdpi.com

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, 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, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

