Special Issue

Energy Performance of Photovoltaic Systems

Message from the Guest Editors

The feasibility of photovoltaic (PV) system investment is mainly based on the assessment of energy performance. However, the energy performance of PV systems is highly dependent on environmental conditions and system failures. The relevant research focuses on monitoring techniques, modelling approaches and the optimization of material/circuit/structure. On the other hand, various artificial intelligence software algorithms have been proposed to assist energy system performance, such as failure diagnosis, maximum power point tracking, energy assessment, etc. This Special Issue aims to present and disseminate the most recent developments related to the materials, design, modelling, control algorithms, optimizations, applications, and evaluation of PV system performance. Topics of interest for publication include, but are not limited to:

- Performance evaluation methods;
- Output energy assessment;
- Inspection and monitoring techniques of solar arrays/plants;
- Defect and failure diagnosis;
- Advanced modelling and analysis approaches;
- Optimal design methodologies of PV cells/modules/arrays;
- Efficiency and energy improvement algorithms;
- Economic feasibility assessments.

Guest Editors

Prof. Dr. Yu-Pei Huang

Department of Electronic Engineering, National Quemoy University, Kinmen County 892, Taiwan

Dr. Hao-Ying Lu

Department of Electronic Engineering, National Quemoy University, Kinmen County 892, Taiwan

Deadline for manuscript submissions

closed (31 December 2023)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/157869

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

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

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)

MDPI