Special Issue

Advances in Photovoltaic Systems: Modelling, Power Converters and Applications

Message from the Guest Editors

The aim of this Special Issue is to publish original highimpact research and reviews of PV systems, with a particular focus on modelling, power converters and applications. Topics of interest may include (but are not limited to) the following areas:

- PV cell/module models capable of representing the I-V behaviour under different environmental conditions;
- Monitoring, detection, classification and/or localization of failures and degradation modes of PV modules, strings and/or arrays;
- Distributed maximum power point tracking (DMPPT) converters (also known as solar optimizers): seriesconnected and parallel-connected DC-DC converters configurations;
- High-gain DC-DC power converter topologies, modelling and control;
- Partial power DC-DC converter configuration, topologies, modelling and control;
- Differential power processing (DPP) converter configurations, topologies, modelling and control;
- Single-phase and three-phase PV inverter topologies and modulation for leakage current reduction;
- Hybrid PV inverters: battery management, converter topology, modulation, modelling and control;
- Global MPPT for PV systems under partial shading conditions.

Guest Editors

Prof. Dr. Fabrício Bradaschia

Prof. Marcelo Cabral Cavalcanti

Prof. Leonardo Rodrigues Limongi

Deadline for manuscript submissions

closed (27 February 2024)



Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 7.7



mdpi.com/si/170755

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

mdpi.com/journal/ sustainability





Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3 CiteScore 7.7



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University, Columbus, OH 43210, USA

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

