

Special Issue

Recent Advances in Grid Connected Photovoltaic Systems

Message from the Guest Editors

Installations of grid-connected photovoltaic systems (GCPs) have been growing rapidly around the world, mainly due to their capacity to generate clean and renewable electricity. Industries and academia are always developing technological advancements for photovoltaic systems aiming at better utilization of electric energy, size reduction, high reliability, and accurate controllers, beyond other relevant topics. In this context, recent advances and new challenges can be addressed. The focus of this Special Issue is to publish original recent advances of GCPs contributing to the increased use of photovoltaic renewable energy. Topics of interest for this Special Issue include but are not limited to the following areas:

- grid-connected photovoltaic systems
- new maximum power point tracks (MPPT) algorithms;
- performance analysis and case studies in GCPs;
- modeling, control and optimal sizing of GCPs;
- thermal management;
- stability of GCPs,
- grid integration;
- fault ride-through;
- economic analysis;
- energy policies;
- energy management storage;
- intelligent metering;
- reliability-based design of PV systems;
- economics/optimization of hybrid installations

Guest Editors

Prof. Dr. Hua Geng

Beijing National Research Center for Information Science and Technology, Department of Automation, Tsinghua University, Beijing 100084, China

Prof. Dr. Tiago Davi Curi Busarello

Department of Control, Automation and Computing Engineering, Federal University of Santa Catarina, Blumenau 89036-256, Brazil

Deadline for manuscript submissions

closed (15 December 2021)



Electricity

an Open Access Journal
by MDPI

Impact Factor 1.8
CiteScore 5.1



mdpi.com/si/52112

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

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





Electricity

an Open Access Journal
by MDPI

Impact Factor 1.8
CiteScore 5.1



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



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Andreas Sumper
CITCEA-UPC, Department of Electrical Engineering, Universitat
Politecnica de Catalunya, 08028 Barcelona, Spain

Author Benefits

High Visibility:

indexed within ESCI (Web of Science), Scopus, EBSCO and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 26 days after submission; acceptance to publication is undertaken in 5.5 days (median values for papers published in this journal in the first half of 2025).

Journal Rank:

CiteScore - Q2 (Electrical and Electronic Engineering)