Special Issue

Digitalization and Advanced Control Techniques of Integrated Photovoltaic Systems

Message from the Guest Editors

The rapid increase in photovoltaic (PV) installation at small and large scales can pose significant technical issues related to the voltage levels and capacity of the network assets in distribution networks. New solutions and digitalization of energy systems, especially PV systems, must be developed to support decision making and improve generation capacity and efficiency. This Special Issue includes (but not limited to) the following topics:

- State-of-the-art reviews on integrated PV systems and applications.
- On-line and off-line PV system performance forecasting methods.
- PV system sizing and optimization.
- Energy management of PV systems.
- AI applications for PV systems.
- Cybersecurity of Digital PV Systems.
- Power converter topologies for PV systems.
- Grid-following inverter controls.
- Grid monitoring and synchronization techniques for 1ph/3ph PV systems
- Fault ride-through enhancement for grid-tied PV systems
- Integration of storage batteries with PV systems.

Looking forward to your contribution!!!

Guest Editors

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Deadline for manuscript submissions

closed (15 February 2023)



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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).