

Special Issue

Integration of Distributed Energy Resources (DERs) in Power Grid: Challenges and Solutions

Message from the Guest Editor

As distributed energy resources (DERs), such as renewable energy, distributed generation, demand response (DR), and energy storage systems, increase in a power grid, there are new challenges in power system operation and planning. In particular, the uncertainty and variability associated with DERs introduce various technical and economic problems in a power grid. Effective operation and planning methods are needed to handle the uncertainty and variability associated with DERs. The main purpose of this Special Issue is to attract high-quality articles that address challenges and solutions associated with integration of DERs in a power grid. Topics of interest include but are not limited to the following:

- Impact of DERs on power system operation and planning;
- Hierarchical operation of DERs;
- Monitoring, control and maintenance of DERs;
- Data analytics in smart meter data of DERs including uncertainty analysis and anomaly detection;
- Renewable generation forecasting;
- Load forecasting considering behind-the-meter (BTM) solar generation;
- Technical and economic issues in demand response;
- New business model using DERs.

Welcome to contribute

Guest Editor

Prof. Dr. Sung-Kwan Joo
School of Electrical Engineering, Korea University, Seoul 02841, Korea

Deadline for manuscript submissions

closed (30 November 2021)



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/30411

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

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





Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



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



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 guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di
Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPus /
SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) /
CiteScore - Q1 (Electrical and Electronic Engineering)

Rapid Publication:

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).