

Special Issue

Implementation of Renewable Energy in Power Distribution Systems Using Digitalization

Message from the Guest Editors

The integration of renewable energy sources (RES) into power grids is a significant global trend impacting various problems in specific conditions of particular countries. The aim of this Special Issue is to study the digitalization of Renewable Energy Sources (RES), creating Digital Twins (DTs), supporting the balancing of the power grid and increasing the flexibility of the energy system, possible through dispatchable renewable energy sources. For this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Analysis of available technical means
- Development of technological schemes implementation RES in the power grid
- Simulation photovoltaic system
- Model microgrid with renewable energy sources
- DT microgrid and RES
- Formation of optimal parameters of the power supply system according to the criterion of cost minimization and energy efficiency
- Developing the composition of equipment (the number, type, and location of electrical modules, inverters, and storage systems, taking into account the terrain and meteorological conditions)
- Using modern software for simulation RES
- Degradation PV module



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/185176

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

Guest Editors

Dr. Olena Rubanenko

Research and Innovation Center for Electrical Engineering (RICE) of the Faculty of Electrical Engineering at the University of West Bohemia, Univerzitní 8, 30614 Pilsen, Czech Republic

Dr. Milan Belik

Department of Electrical Power Engineering, University of West Bohemia, 30614 Pilsen, Czech Republic

Deadline for manuscript submissions

closed (15 December 2024)





Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



[mdpi.com/journal/
electronics](http://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 guestedited 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), CAPIPlus / 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 16.4 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).

