Special Issue

Upgrading the Future Power Grid: Current Research, Trends and Challenges in Distributed Energy Resources and Mobility Ecosystems

Message from the Guest Editors

This Special Issue aims to publish high-quality manuscripts related to current trends and challenges in DERs and mobility ecosystems, with the goal of addressing a better overall management of the future power grid and the derived services and applications. Topics of interest include, but are not limited to, the following:

- Integration of RES and DERs;
- Energy management and control systems for DERs and/or mobility systems;
- Wired/wireless/hybrid communication technologies for DERs and/or mobility systems;
- Big Data analytics for DERs and/or mobility systems;
- Quality of service and quality of supply assessment;
- Grid stability and resiliency performance;
- Utility-scale storage systems;
- AC/DC microgrids;
- Microgrid clusters/communities;
- Ancillary services under high variable RES penetration;
- Smart charge management;
- Vehicle-to-grid (V2G) and vehicle-to-everything (V2X);
- V2G strategies to support resilience and efficient operation of the power grid.

Guest Editors

Dr. Noelia Uribe Pérez

Digital Lab_Services Area, Tecnalia Research & Innovation, 48160 Derio-Bizkaia, Spain

Dr. Pablo Arboleya

Department of Electrical Engineering, University of Oviedo, 33203 Gijon, Spain

Deadline for manuscript submissions

closed (15 January 2024)



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/173880

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

mdpi.com/journal/electronics





Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



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), CAPlus / 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).

