Special Issue

Power Converters for Electric Vehicles, Energy Storage Systems and Renewable Energy Sources

Message from the Guest Editors

The intent of this Special Issue is to collect innovative contributions on the development of new topologies and control techniques for EV power converters and drives, new architectures and energy management approaches for EVs equipped with different onboard energy sources, and the development of innovative chargers and power converters for ESSs aimed at integrating EVs and RESs in power systems considering smart charging/discharging strategies. The topics to be covered in this Special Issue are as follows:

- The design of DC/DC converters for hybrid and pure EVs;
- Power converters for lithium-ion batteries, fuel cells, and supercapacitors;
- Control techniques for drives for electric vehicles;
- AC/DC converter topologies for interfacing ESSs to power systems;
- Fast and ultra-fast chargers for EVs;
- Bidirectional converters for implementing V2G and G2V ancillary services, considering RESs;
- New power and energy management strategies for V2G and ESSs in smart grids;
- Onboard energy management strategies for hybrid EVs;
- GaN and SiC power devices for EV and ESS applications;
- The integration of RESs in power systems.

Guest Editors

Dr. Vito Calderaro

Department of Industrial Engineering, University of Salerno, 84084 Salerno, Italy

Dr. Giuseppe Graber

Department of Industrial Engineering, University of Salerno, 84084 Salerno, Italy

Deadline for manuscript submissions

closed (31 December 2021)



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/76090

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).

