Special Issue

Power Electronics and Control of High-Speed Electrical Drives

Message from the Guest Editors

Interest in high-speed machines electrical drives has increased in recent years, together with the need to increase the speed of electrical machines characterized by a high number of pole pair thanks to the use of different flux-weakening techniques. We find applications of these drives in the distribution grid of the more electric aircraft, in high-speed actuators, in electric turbochargers for internal combustion engines, in direct-drive large generators for wind energy conversion systems, in high-performance electric drives for the industrial and robotics fields, and so on.

Keywords:

- High-speed electrical drives
- Flux-weakening strategies
- Wide band-gap devices
- Power converter topologies
- Multilevel topologies
- Soft switching techniques
- Current control
- High pole pair machines
- Common-mode current
- Bearing current

Welcome to contribute!

Guest Editors

Prof. Dr. Giampaolo Buticchi

Key Laboratory of More Electric Aircraft Technology of Zhejiang Province, Department of Electrical and Electronic Engineering, University of Nottingham, Ningbo 315104, China

Prof. Dr. Emilio Lorenzani

Department of Science and Methods for Engineering, University of Modena and Reggio Emilia, 42121 Reggio Emilia, 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/53842

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

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), 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).