Special Issue

Digital Twins and Robust Design Optimization for Greener Manufacturing of Electrical Machines and Devices

Message from the Guest Editors

The implementation and application of green manufacturing processes are essential to the manufacturing of electrical machines and devices. The Special Issue is open for contributions that show how modern numerical technologies are integrated and deployed as Digital Twins and how robust design optimization techniques can support the greener manufacturing of electric machines and electrical devices. Topics of interest for this Special Issue include, but are not limited to:

- Digital Twins, predictive maintenance, Industry 4.0;
- System-level modelling, multi-domain automatic analysis tools, co-simulations, etc.;
- Advanced modelling (electromagnetic, thermal, NVH, mechanical, EMC, insulation, etc.);
- Advanced models for diagnosis;
- Electromagnetic materials, iron losses, and additional losses;
- Optimization techniques, Advanced testing; Optimization and learning under uncertainty;
- Model-based software development and validation of optimization of electrical machines or electric devices;
- Surrogate and reduced-order modelling of electric machines and electric devices.

Guest Editors

Dr. Tamás Orosz

Dr. David Pánek

Prof. Dr. Miklos Kuczmann

Prof. Dr. Anton Rassõlkin

Deadline for manuscript submissions

closed (30 June 2025)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/120650

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).