



an Open Access Journal by MDPI

Advanced Macromodeling and Optimization Techniques in Electrical Engineering

Guest Editors:

Dr. Luciano De Tommasi

International Energy Research
Centre, Tyndall National Institute,
University College Cork, T12 E138
Cork, Ireland

Dr. Ivo Couckuyt

Department of Information
Technology (INTEC), Ghent
University - imec, iGent,
Technologiepark-Zwijnaarde
126, B-9052 Gent, Belgium

Dr. Domenico Spina

Department of Information
Technology (INTEC), Ghent
University - imec, iGent,
Technologiepark-Zwijnaarde
126, B-9052 Gent, Belgium

Deadline for manuscript
submissions:

closed (31 March 2022)



[mdpi.com/si/72703](https://www.mdpi.com/si/72703)

Message from the Guest Editors

This Special Issue deals with scalable optimization methodologies for electronic system design and control, including applications to integrated circuit design, signal integrity simulations, power electronic systems' design and control, and communication networks' design and automation. This issue welcomes novel contributions with respect to the metrics approximated by surrogates to improve multi-objective optimization algorithms' effectiveness, balance between wide design space exploration and local search, use of surrogates for preselection of solution and interplay between surrogate-based evaluation and original expensive objective evaluation.

Topics of interest for this Special Issue include, but are not limited to:

- Surrogate-assisted optimization;
- Black-box optimization;
- Surrogate modelling;
- Metamodeling;
- Electronic circuits design;
- Control algorithm design;
- Sensitivity analysis;
- Ensemble surrogate models;
- Multiobjective optimization;
- Evolutionary optimization algorithms.

https://www.mdpi.com/journal/electronics/special_issues/SA_BBO_EE

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and
Telecommunications,
Politecnico di Torino, 10129
Torino, Italy

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Control and Systems Engineering*)

Contact Us

Electronics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/electronics
electronics@mdpi.com
[X@electronicsMDPI](https://x.com/electronicsMDPI)