electronics

an Open Access Journal by MDPI

IMPACT FACTOR 2.6

CITESCORE 6.1

Superconducting Machines Performance Optimization

Guest Editor:

Dr. Dong Liu
School of Energy Systems, LUT University, FI-15210 Lahti, Finland

Deadline for manuscript submissions:
closed (15 July 2025)

Message from the Guest Editor

Superconducting machines are being considered and proposed for high-power-density or high-torque-density applications, such as propulsion motors for aviation and marine and power generators for wind turbines. The method of designing superconducting machines has not yet been agreed upon since there are many options under consideration, such as partial or full superconducting, iron or ironless core, distributed or concentrated windings, various superconductor types and their prices, cryogenic cooling methods, etc. It is necessary to devise the best designs for certain conditions. Otherwise, this technology will be unable to advance to commercialization. Identifying the best designs requires the optimization and quantitative comparison of the optimum designs of all the possible options. However, optimization of superconducting machines is rather challenging since analytical methods may not be sufficient and finite element methods may be involved in the optimization program.

electronics

IMPACT FACTOR 2.6

CITESCORE 6.1

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 guestedited 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 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic 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