

Special Issue

Railway Traction Power Supply

Message from the Guest Editor

Nowadays, electrified railway networks are considered one of the most environmentally friendly transportation systems. In the context of the need for increased rail transportation both for freight and passenger services, the efficiency of the electric traction system, from the power supply to the rolling stock, is of central concern. This Special Issue will focus on advances in the domain of railway traction power supply at different aspects levels: modelling, technologies, converters and systems. All electrification systems, both Direct Current and Alternating Current, are addressed. Papers on the following topics are welcome: New solutions for interconnection to public grid (reversible substation, voltage balancer, frequency changer ...); New solutions for power supply (FACTs, three-wire DC power supply, MVDC power system, Integration of renewable energy sources, Energy storage systems ...); Interactions between rolling stock and power supply (low frequency stability, harmonics interactions ...).

Guest Editor

Prof. Dr. Philippe Ladoux

Laboratory of Plasma and Energy Conversion (LAPLACE), University of Toulouse, Toulouse, France

Deadline for manuscript submissions

closed (31 March 2023)



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/74190

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

[mdpi.com/journal/
electronics](https://mdpi.com/journal/electronics)





Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



[mdpi.com/journal/
electronics](https://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 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), CAPus /
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).