electronics

an Open Access Journal by MDPI

IMPACT FACTOR 2.6

CITESCORE 5.3

Intelligent Train Control and Monitoring Technologies

Guest Editors:

Dr. Mengshiuan Pan
Department of Electronic Engineering, National Taipei University of Technology, Taipei 10608, Taiwan

Dr. Ming-An Chung
Department of Electrical and Computer Engineering, National Taipei University of Technology, Taipei 10608, Taiwan

Dr. Cheng-Hao Huang
Department of Vehicle Engineering, National Taipei University of Technology, Taipei 10608, Taiwan

Deadline for manuscript submissions:
closed (15 January 2024)

Message from the Guest Editors

Dear Colleagues,

Compared to conventional transportation systems, railway transportation has greater energy and transport efficiency. In a smart railway system, the train control and monitoring system (TCMS) plays a crucial role in controlling trains. For safety, modern TCMS collect vehicle information for drivers and remote monitoring personnel and provide user interfaces for them to operate and move vehicles. Although the TCMS may not be as critical as the power system or the vehicle's physical structure, it remains the essential component to achieve safety. The TCMS is also a vital system for automatic driving. The TCMS transmits information from sensors to the control center, i.e., the brain, for processing and deciding how to react.

The TCMS contains some subsystems, including train communication networks, mobile communication networks, vehicle control units, and human–machine interfaces. These subsystems assist drivers or the remote center to ensure that the train is working well. In recent years, with the rapid development of AI and communication technology, modern TCMSs can provide more functionalities.

electronics

IMPACT FACTOR 2.6

CITESCORE 5.3

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