

## Special Issue

# Intelligent Train Control and Monitoring Technologies

### Message from the Guest Editors

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.

---

### Guest Editors

Dr. Mengshiu Pan

Dr. Ming-An Chung

Dr. Cheng-Hao Huang

---

### Deadline for manuscript submissions

closed (15 January 2024)



## Electronics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/si/172768](https://mdpi.com/si/172768)

*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto: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 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), 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).