# **Special Issue**

# Al-Driven Signal Processing in Communications

## Message from the Guest Editors

This Special Issue in *Electronics* seek contributions that fundamentally advance how signals are generated, transmitted, received, and interpreted using AI techniques. We are particularly interested in work that addresses the unique signal processing challenges posed by dynamic channel conditions, massive connectivity, ultra-low latency requirements, extreme bandwidths, and the need for energy-efficient solutions. Topics of interest include, but are not limited to, the following:

- Al-driven signal processing for wireless and wireline communications;
- Machine/deep learning for physical layer design in Beyond 5G and 6G access and core networks:
- Al-based channel estimation, prediction, and equalization:
- Intelligent signal detection and interference management/mitigation;
- Al-powered resource allocation and network optimization;
- Machine learning for waveform design, modulation, and coding;
- Al applications in massive MIMO, smart antennas, and beamforming:
- Signal processing for Al-enabled Internet of Everything (IoE) and IoT networks;
- Al-driven signal processing in autonomous driving, V2X solutions, and vehicular networks.

### **Guest Editors**

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Dr. Mingjie Shao

## Deadline for manuscript submissions

15 December 2025



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## **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

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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).

