Special Issue

Next-Generation MIMO Networks with Edge AI and Foundation Models (FMs)

Message from the Guest Editors

This Special Issue aims to explore the transformative potential of AI technologies in revolutionizing next-generation MIMO systems, enabling innovative solutions to address the challenges of the dynamic, complex, and heterogeneous wireless networks of the future. Topics of interest include, but are not limited to, the following:

- AI-powered beamforming and signal processing for real-time optimization in MIMO systems.
- Integration of FMs for semantic communication and intelligent signal encoding in MIMO systems.
- Federated learning and distributed AI for MIMO-enhanced edge communication.
- Application of AI to reconfigurable intelligent surfaces (RIS) for enhanced MIMO performance in complex wireless environments.
- Energy-efficient MIMO designs leveraging AI for intelligent power control and signal processing.
- Integration of non-terrestrial networks and AI-powered MIMO for 6G use cases.

Guest Editors

Dr. Kangda Zhi

School of Electrical Engineering and Computer Science, Technical University of Berlin, 10623 Berlin, Germany

Dr. Na Yan

Department of Engineering, Kings College London, London WC2R 2LS, UK

Deadline for manuscript submissions

20 October 2025

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/231376

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

mdpi.com/journal/electronics

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

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), CAPlus / 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).

MDPI