Special Issue

Advanced Millimeter Wave Antenna Systems for 5G and beyond 5G Wireless Communications

Message from the Guest Editors

Recently, higher frequency bands, especially millimeter wave (mmWave) frequency bands, have been utilized to improve the transmission data rate for fifth generation (5G) and beyond 5G (B5G) wireless communication systems. As the frequency increases, the available bandwidth increases, while the wave length decreases. More antenna elements are required to compensate for the high path loss, blockage, gas absorption, etc. Advanced antenna designs and technologies need to be explored, such as (ultra-)massive multiple-input multiple-output (MIMO), holographic MIMO, and reconfigurable intelligent surface (RIS) communications. The emerging new application scenarios, such as integrated sensing and communications (ISAC), unmanned aerial vehicle (UAV), and maritime communications at mmWave bands, are promising. MmWave channel measurements, characteristics analysis, and channel modeling are also important for system design and performance evaluation. This Special Issue therefore aims to bring together original research and review articles on recent advances, technologies, solutions, applications, and new challenges in the field of mmWave wireless communication systems.

Guest Editors

Dr. Jie Huang

Dr. Li You

Dr. Yu Liu

Deadline for manuscript submissions

31 August 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/136699

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

mdpi.com/journal/sensors

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/journal/sensors

MDPI

About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)