

Special Issue

Microwave Components in Sensing Design and Signal Processing

Message from the Guest Editors

Microwave sensing technologies have become the backbone of various applications including communications, environmental monitoring, medical diagnostics, and industrial process control, etc. This special issue aims to cover the latest advancements in microwave component design and signal processing techniques for sensing applications, including the design and optimization of microwave components such as antennas, filters, amplifiers, absorbers and resonators, the fabrication techniques to enhance their performance and reliability and advanced signal processing algorithms and methodologies, how to improve detection sensitivity, and enhance the overall performance of microwave sensing systems. In addition to technical aspects, the special issue also focuses on practical considerations for these advanced microwave components, such as system integration, calibration, and validation of microwave sensing systems in modern applications

Keywords:

- Microwave Sensing
- Microwave Component Design
- Microwave Signal Processing
- Antennas
- Filters
- Amplifiers
- Absorbers
- Resonators
- Microwave Engineering

Guest Editors

Dr. Kewen Pan

Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences (CAS), Ningbo 315201, China

Dr. Xianjun Huang

College of Electronic Science and Technology, National University of Defense Technology, Changsha 410076, China

Deadline for manuscript submissions

30 November 2025



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/205300

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

[mdpi.com/journal/
sensors](https://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](https://mdpi.com/journal/sensors)



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)