# Special Issue

# Advances in Sensing Technologies for Inertial Stabilization

## Message from the Guest Editors

Inertial stabilization technologies are used to stabilize sensors, cameras, and telescopes to achieve applications such as target tracking, communications, and astronomical telescopes. With the continuous advancement in sensors and mechanical technologies, the requirements of inertial stabilization are becoming increasingly rigorous, but controlling or stabilizing the line of sight (LOS) is the common objective for inertial stabilization. High-sensitivity and -stability sensors are employed to design a desired performance in an inertial stabilization platform to control LOS and realize precise nonlinearity isolation and disturbance rejection. Sensor-based control structure also becomes a vital research area in the field of inertial stabilization. This Special Issue invites manuscripts that introduce the recent advances in Inertial Stabilization. Topics include, but are not limited to, the following:

Inertial sensors trends;
Inertial sensor-based measurement and control methods;
Robust disturbance rejection;
Signal processing in inertial stabilization control;
Inertial stabilization platform.

## Guest Editors

Dr. Tao Tang
Institute of Optics and Electronics, Chinese Academy of Sciences, Chengdu 610209, China

Dr. Zhiyong Yu
Institute of Optics and Electronics, Chinese Academy of Sciences, Chengdu 610209, China

## Deadline for manuscript submissions

10 April 2026

**Sensors**

**an Open Access Journal by MDPI**

**Impact Factor 3.5**
**CiteScore 8.2**
**Indexed in PubMed**

mdpi.com/si/248847

*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)