

## Special Issue

# Rotation Rate Sensors and Their Applications

### Message from the Guest Editors

Rotation rate sensors are finding more and more applications in science and engineering, most prominently by serving for the control of vehicle or airplane motion. Functions in consumer electronics, such as smartphones and smartwatches are controlled with respect to their tilt. In modern seismology, the measurement of rotations about the vertical and horizontal axes is combined with classic displacement records, which has demonstrated many powerful applications. Even a small rocking motion of the foundations of tall buildings translates into substantial tip displacements. Furthermore, we are now in the position to obtain torsional motion from tall structures reliably. All these applications require various types of rotation rate sensors. From small MEMS gyros, over fiber-optic gyros and electrochemical devices to high resolution, large ring lasers. This Special Issue will collect papers on (inertial) rotation rate sensors and their applications, with particular attention paid to the novel areas of application in modern geophysics, civil and seismic engineering, as well as mechanical engineering and modern geodesy, including structural health monitoring.

---

### Guest Editors

Prof.Dr. Zbigniew Zembaty

Dr. Felix Bernauer

Prof.Dr. Heiner Igel

Prof. Dr. Ulrich Schreiber

---

### Deadline for manuscript submissions

closed (19 April 2021)



## Sensors

---

an Open Access Journal  
by MDPI

---

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



[mdpi.com/si/41191](https://mdpi.com/si/41191)

*Sensors*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sensors@mdpi.com](mailto: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)