



*sensors*



an Open Access Journal by MDPI

## Sensors and Sensing Networks Based on Smart Materials

Guest Editor:

**Prof. Dr. Seung-bok Choi**

Department of Mechanical Engineering, The State University of New York at Korea (SUNY Korea), 119 Songdo Moonhwa-Ro, Yeonsu-Gu, Incheon 21985, Korea

Deadline for manuscript submissions:

**closed (31 March 2019)**

### Message from the Guest Editor

Smart material technologies have been commonly utilized in a variety of applications in various industries, including automotive company. In these applications, most smart materials are used as actuators, where smart materials can produce control forces to achieve desired performances by external stimuli, such as electric fields. Recently, the development of new sensing technologies utilizing smart materials has started to expand the applications of actuators and sensors as well. More specifically, a special magnetic field sensor using magneto-rheological fluids has been developed based on the resonance phenomenon of a flexible structure, a new frequency-dependent vibration transducer has been developed using the piezoelectric materials and a cost-effective strain sensor using electro-responsive papers. It is noted that the highlighting of sensors and transducers based on smart materials is represented by diverse measures, such as force, moment, torque, displacement, acceleration, strain, magnetic field, electric field, light intensity and temperature.



[mdpi.com/si/16432](https://mdpi.com/si/16432)

**Special** Issue



*sensors*



an Open Access Journal by MDPI

## 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

## 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.

## 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 & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

## Contact Us

*Sensors* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sensors](http://mdpi.com/journal/sensors)  
[sensors@mdpi.com](mailto:sensors@mdpi.com)  
[X@Sensors\\_MDPI](#)