



*sensors*



an Open Access Journal by MDPI

## Digital Twins and Robot Sensing for Smart Construction and Facilities Management

Guest Editors:

**Dr. Vincent Gan**

**Dr. Ali Ghahramani**

**Dr. Weiwei Chen**

**Dr. Mingzhu Wang**

Deadline for manuscript  
submissions:  
**closed (31 October 2023)**

### Message from the Guest Editors

Dear Colleagues,

The COVID-19 pandemic has severely disrupted global economic activities, and has very rapidly changed the way we designed, operated, and maintained the built environment. As previous relevant research on building design has much focused on structure, function and appearance, planners in trying to anticipate the new environmental inventions as related to the building performance faces exceptional difficulties. There is huge unmet needs to transform conventional operating arrays of old buildings towards autonomous built environment for improving its sustainability, resiliency, and well-being. Nowadays, innovative digital technologies such as Digital Twin, Robotics, Artificial Intelligence, and 5G have bring new opportunities for research, and seek to transform the way people design and manage the built environment. This Special Issue aims to collect state-of-the-art research on the latest development of innovative digital solutions for autonomous built environment management. Critical reviews and original research papers which address current research gaps, theoretical frameworks, methodologies, and case studies are welcome.



[mdpi.com/si/164412](https://mdpi.com/si/164412)

# 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](#)