Special Issue

Smart Sensors for Structural Health Monitoring and Nondestructive Testing on Transportation Infrastructures

Message from the Guest Editors

As transportation infrastructures age and face increasing demands, ensuring their safety and resilience becomes paramount. Traditional inspection and evaluation methods, while effective, often require time-consuming and costly procedures. In recent years. the integration of smart sensors into Structural Health Monitoring (SHM) and Non-destructive Testing (NDT) processes has revolutionized how we assess and maintain transportation systems. These advanced sensors enable real-time monitoring, predictive maintenance, and rapid response to structural issues, enhancing the longevity and safety of critical infrastructure. This Special Issue aims to highlight the latest innovations in smart sensor technologies and their applications in transportation infrastructures. It will cover the development of cutting-edge sensor systems, advancements in data analytics, and real-world case studies that demonstrate the effectiveness of these technologies in monitoring and maintaining infrastructure. By gathering contributions from researchers and practitioners, this Special Issue will provide valuable insights into the future of SHM and NDT in the transportation sector.

Guest Editors

Dr. Zhen Liu

Prof. Dr. Xingyu Gu

Dr. Dongdong Han

Dr. Yuliang Zhou

Deadline for manuscript submissions

30 September 2025



Sensors

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 7.3
Indexed in PubMed



mdpi.com/si/220094

Sensors 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 3.4 CiteScore 7.3 Indexed in PubMed



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 (Chemistry, Analytical) / CiteScore - Q1 (Instrumentation)

