# Special Issue

# Structural Health Monitoring for Bridge Structures

## Message from the Guest Editors

Structural health monitoring (SHM) has emerged as a crucial field in ensuring the safety, reliability, and longevity of bridge structures. With the increasing complexity and aging infrastructure of bridges worldwide, the need for effective monitoring systems has become more pronounced than ever. In the past few years, AI and Big Data technology have greatly promoted the development of structural health monitoring, assessment and maintenance. This Special Issue aims to bring together the latest advancements, research findings, and practical applications in the field of structural health monitoring for bridge structures, including:

- Sensor technologies and data acquisition systems for bridge monitoring;
- Advanced signal processing and data analysis techniques for structural health assessment;
- Non-destructive testing and evaluation methods for bridge structures;
- Wireless sensor networks and IoT applications in bridge monitoring;
- Structural modeling and simulation for health monitoring and prognosis;
- Remote sensing and imaging techniques for bridge inspection and monitoring;
- Risk assessment and decision-making frameworks based on SHM data......

## Guest Editors

Dr. Yi Zhou

School of Civil and Resource Engineering, University of Science and Technology Beijing, Beijing 100083, China

Prof. Dr. Guangdong Zhou

College of Civil and Transportation Engineering, Hohai University, Nanjing, China

## Deadline for manuscript submissions

closed (20 February 2025)

# Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/
applsci

# About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:**
JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )