

## Special Issue

# Advanced Devices and Data Analysis in Vibration Control and Structural Health Monitoring

### Message from the Guest Editors

This Special Issue focuses on the latest advances in advanced devices, innovative data analysis strategies, optimization methods, uncertainty quantification, Bayesian methods and artificial intelligence techniques for SHM. The topics of interest for this Special Issue include, but are not limited to, the following:

- Advanced sensors and data acquisition systems for SHM and engineering optimization;
- Wireless sensor networks for SHM;
- Innovative data analysis strategies for SHM and engineering optimization;
- Signal processing and machine learning techniques for SHM and engineering optimization;
- Non-destructive testing and evaluation for SHM;
- Experimental and numerical studies on SHM and engineering optimization;
- Applications of advanced devices, innovative data analysis strategies, artificial intelligence and deep learning in real-world scenarios;
- Health monitoring of large-scale structures such as bridges, wind turbines and buildings;
- Uncertainty quantification with advanced numerical methods and simulations;
- Risk-informed decision-making for SHM of infrastructure systems.

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### Guest Editors

Dr. Yinghao Zhao

Dr. Zeyu Wang

Dr. Xijun Ye

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### Deadline for manuscript submissions

closed (20 May 2025)



## Applied Sciences

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### 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.

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### Editor-in-Chief

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