

## Special Issue

# The Application of Machine Learning in Structural Health Monitoring

### Message from the Guest Editor

For decades, continuous efforts have been made in the area of structural health monitoring (SHM) due to its crucial role in real-time health state awareness and safety evaluation for various engineering structures. With its typical interdisciplinary nature, SHM embraces the advances in solid mechanics, sensor technology, signal processing, hardware design, etc. In this Special Issue, we invite worldwide researchers to publish their original works highlighting the state-of-the-art application of machine learning in structural health monitoring. The topics of submitted articles can cover both fundamental algorithms as well as lasting ML applications in aerospace, civil engineering, the automobile industry, machinery, and so on. The welcome topics include (among others):

- Data generation and augmentation;
- Robust model training to adapt to application environments;
- Novel SHM-related knowledge obtained from data mining;
- Uncertainty identification, propagation, and control in SHM process;
- Image/pattern recognition using SHM/NDT techniques.

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### Guest Editor

Dr. Hao Xu

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### Deadline for manuscript submissions

closed (20 January 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

Prof. Dr. Giulio Nicola Cerullo  
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