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Artificial-Intelligence-Based Methods for Structural Health Monitoring

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Message from the Collection Editor

The area of intelligent and resilient infrastructure and smart cities is a rapidly emerging field that is redefining the future of urban development, and how to preserve the existing infrastructure against natural hazards. Sensing, and especially networked sensing and monitoring, has been an integral part of a growing field.

This Special Issue aims to underscore the importance of development and introduction of AI-based methodologies for structural health monitoring of infrastructure systems and the analysis and feature extraction from sensor data. Potential topics include but are not limited to the following areas and utilization of AI-based methods for structural health monitoring:

- Artificial neural networks;
- Deep learning neural networks;
- System identification;
- Surrogate models;
- Big data in infrastructure systems
- Optimization;
- Probabilistic methods for SHM combined with AI methods;
- Various machine learning tools;
- Dynamic response prediction via AI methodologies;
- Feature extraction schemes.

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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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