Special Issue

State-of-the-Art Structural Health Monitoring Application

Message from the Guest Editors

The recent advancements in structural health monitoring (SHM) systems have significantly enhanced the capability to continuously monitor diverse types of structures (differing in shape and material) and detect, identify, and localise anomalies, aiming to estimate the remaining useful life (RUL) of these structures. This progress is crucial for preventing accidents and reducing maintenance costs. For this purpose, new technologies in sensing allied to AI/machine learning algorithms, alongside IoT technologies, play a pivotal role in the development of net real-time SHM systems. These innovations have expanded the practicality and efficiency of SHM, making it more accurate and versatile across a range of applications, including wind turbines, rotor systems, aircraft, bridges, and buildings. This Special Issue will explore emerging trends, novel methodologies, and cutting-edge technologies that are reshaping the SHM landscape, including, but not limited to, the following:

- Advanced sensing technologies;
- Data processing and analytics;
- Non-destructive testing (NDT) methods;
- Digital twins and IoT integration.

Guest Editors

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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.

Editor-in-Chief

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