Special Issue

Application of Acoustics as a Structural Health Monitoring Technology

Message from the Guest Editors

Acoustics plays a pivotal role in the evolving field of structural health monitoring (SHM), offering robost methods for the real-time and intermittent assessment of materials, structures, and machinery. We invite contributions that examine advancements in acoustics for SHM, including the integration of machine learning, data processing algorithms, and new acoustic sensor technologies. Topics of interest include, but are not limited to, the following:

- Acoustic methods (sound, acoustic emission, ultrasonics, acousto-ultrasonics, guided waves, etc.) for SHM;
- Integration of artificial intelligence (AI) and machine learning with acoustic-based SHM;
- Real-time data processing and signal interpretation;
- Case studies in civil, aerospace, automotive, energy, manufacturing sectors, etc.;
- Hybrid systems combining acoustics with other SHM technologies;
- Advances in acoustic sensor technologies for SHM;
- Challenges of applying acoustics in complex environments;
- Sustainability and cost-effectiveness of acoustics-based SHM;
- Future trends in acoustic-based SHM applications.

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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