

Special Issue

Innovative Approaches to Non-Destructive Evaluation

Message from the Guest Editors

Non-destructive evaluation (NDE) techniques are vital for assessing, monitoring, and preserving engineering structures. These methods allow material characterization, defect detection, and long-term observation of structural behavior without damage, enabling effective structural health monitoring (SHM). They are key to early deterioration diagnosis and continuous performance monitoring across a structure's lifespan. Recent advancements include high-resolution sensors, real-time data acquisition, and AI-driven interpretation tools. The growing complexity of modern and historical structures has also led to hybrid systems combining multiple techniques for richer diagnostics. This Special Issue highlights recent developments in NDE, emphasizing methodological innovation, interdisciplinary approaches, and applications in civil and structural engineering. Topics include acoustic emission, ultrasonic testing, infrared thermography, digital image correlation, laser scanning, radar-based inspection, and fibre optic sensing. We welcome studies on multi-sensor strategies, AI-enhanced analysis, and real-world case applications. Both original research and reviews are invited.

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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