

Special Issue

Advanced Sensing and Deep Learning for Damage Detection and Performance Assessment in Structural Health Monitoring

Message from the Guest Editors

Structural Health Monitoring (SHM) has rapidly developed over the past few decades as authorities and practitioners look for efficient methods to ensure the safety and longevity of critical infrastructure. Recent advancements in sensor and computing technologies have significantly improved the ability to capture detailed data on structural conditions. When combined with artificial intelligence techniques, these technologies can provide unprecedented insights into the health and performance of engineering structures. Deep learning models are particularly well-suited for analyzing the vast amounts of data generated by modern sensor systems. We invite original research and comprehensive review articles that explore innovative approaches to damage detection and performance assessment using advanced sensing and deep learning. The topics of interest include sensing techniques, edge computing, data fusion, and the latest application of deep neural networks. Contributions that address the challenges and opportunities in integrating these technologies in real-world scenarios are particularly encouraged.

Guest Editors

Dr. Andy Nguyen

School of Engineering, University of Southern Queensland, Springfield Central, QLD 4300, Australia

Dr. Yang Yu

School of Civil and Environmental Engineering, University of New South Wales, Sydney, NSW 2502, Australia

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Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

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Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 Bari, Italy

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