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Model-Free Structural Health Monitoring Approaches

Guest Editors:

Dr. Donya Hajjalizadeh

Department of Civil and Environmental Engineering, University of Surrey, Guildford CM2 7XH, UK

Dr. Boulent Imam

School of Engineering, Faculty of Engineering and Physical Sciences, University of Surrey, Guildford GU2 7XH, UK

Dr. Ying Wang

Department of Civil and Environmental Engineering, University of Surrey, Guildford GU2 7XH, UK

Deadline for manuscript submissions:

closed (31 July 2023)

Message from the Guest Editors

In a broad categorization, structural health monitoring (SHM) systems can be divided into model-based and model-free (data-driven) approaches. The model-based approach detects damages using a numerical model and physical description of the structure behavior. The model-free approach generally relies on the analysis of the structure behavior using data-driven algorithms and without developing a numerical model of the structure. The main advantage of the model-free approach of SHM is its great potential for network-based real-time SHM.

This Special Issue will be focused on studies that present novel data-driven and model-free structural health monitoring systems for any type of structure or infrastructure. We welcome all studies that demonstrate the application of physical sensors and remote and smart sensing for developing a data-driven SHM system. Topics of interest include but are not limited to the following:

- structural health monitoring (SHM)
- data-driven
- model-free
- machine learning



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Special Issue



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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

Message from the Editor-in-Chief

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Sensors Editorial Office
MDPI, Grosspeteranlage 5
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