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Dynamic Characterization, Testing and Monitoring of Bridges and Buildings

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closed (20 August 2022)

Message from the Guest Editors

Dear Colleagues,

The characterization and monitoring of the structural modal parameters recently received large attention in civil engineering because of their usefulness in the updating, assessment and validation of numerical models, and the structural health monitoring (SHM) of existing buildings and bridges, obtained through the tracking of their evolution over time. As for tests, various techniques differing in terms of equipment, time required, costs, and dynamic input can be adopted, and the data interpretation differs depending on the test typology and the relevant excitation level. Furthermore, the use of data also depends on the structural typology, being the parameters affected by the contribution of non-structural members, in the case of buildings. Concerning monitoring, issues relevant to automated operational modal analysis, optimal sensor placement, effects of environmental conditions, and wireless technology arise.

This Special Issue aims to become a collection of high-quality articles addressing theoretical issues and practical experiences in the field of dynamic testing, structural health monitoring and dynamic characterization of existing civil constructions.

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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.

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