

Advanced Technologies for Building Pathology Inspection

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Message from the Guest Editors

Building pathologies can affect stability and functional requirements through the deterioration of the construction materials and elements. In addition, they can affect the thermal comfort of the users and increase the energy demand of the building.

This Special Issue collects the most recent works in the field of building pathology and diagnosis, in which a wide range of studies using different advanced technologies are welcome as long as they can be used for building inspections and hence contribute to the maintenance of their conservation state. We welcome submissions that cover, but are not limited to, the following specific topics:

- Building pathology assessment methods;
- Identification and characterization of pathologies in buildings and their components;
- Diagnosis techniques;
- Laboratory and in situ testing;
- Punctual and monitoring inspections;
- Thermal comfort and energy efficiency analysis;
- Digital twin for building management;
- Management systems based on Artificial Intelligence methods.

For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/buildings/special_issues/

Building_Pathology



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Special Issue

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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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