Special Issue

Inspection, Maintenance and Retrofitting of Existing Buildings

Message from the Guest Editors

Maintaining and inspecting existing buildings is crucial in meeting the societal goals of sustainable city development. Existing buildings will pose a danger to the general public if not properly maintained. Many of the buildings have suffered from early deterioration so the maintenance and inspection techniques have become more demanding regarding accuracy and reliability. Moreover, existing building stocks consume significant amounts of energy worldwide. Therefore, sustainable building retrofitting has emerged as a significant urban rehabilitation theme and provides vast palpable opportunities for improving the performance of the existing building stock. The objective of this Special Issue is to cover the following topics:

- Advanced inspection techniques and maintenance technology
- Digital modelling of the existing building stock
- Application of building information modelling
- Sustainability and maintainability
- Greening/energy retrofitting of the existing building stock
- Decision-making models to support building maintenance management, etc

Guest Editors

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About the Journal

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.

Editor-in-Chief

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