

Novel Ecofriendly Repair and Rehabilitation Techniques for Deteriorated Structures and Building Components

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Message from the Guest Editors

Environmental awareness is gaining impetus among the population, and this is also reflected in the management of deteriorated structures. Structural deterioration not only causes instability but also affects its real-time usage. Novel structural rehabilitation measures have been invented across the globe, but the processes have not yet been disseminated properly. Further, the environmental impacts of repairing materials have not been studied properly, and it is the need of the hour to understand their real impact. This Special Issue focuses on promoting and disseminating materials, tools, and techniques related to the repair and rehabilitation of older structures and building components in an ecofriendly manner. Topics to be covered include:

- Novel repair methods for deteriorated structures;
- Ecofriendly retrofitting methods;
- Software-based analysis for retrofitting;
- Low-density and low-weight materials for retrofitting;
- Retrofitting for older structures;
- Supplementary cementitious materials and their applications ;
- High-strength materials for novel retrofitting;
- Environmental impact of repairing materials;
- Geomaterial innovation for repair and rehabilitation.

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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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