Special Issue

Building Structures Under Fire, Structural Dynamics and Material Degradation

Message from the Guest Editor

This Special Issue aims to investigate a broad range of topics that are fundamental to the understanding and optimization of building structures, with a particular emphasis on various scenarios that may adversely impact structural integrity, including fire exposure, seismic loading, and aggressive environmental conditions. Contributions are encouraged that examine the performance and behavior of structures subjected to fire, as well as the effects of seismic activity and material durability in challenging environments, with a focus on advancements in enhancing structural resilience. Areas of interest include the application of innovative materials designed to improve both the performance and durability of structures. This may include Fiber-Reinforced Polymer (FRP) laminates and bars, advanced composites, geopolymers, and sustainable materials. Additionally, contributions may address the use of self-healing materials, nanomaterials, and protective coatings to effectively mitigate damage risks and strengthen structural integrity against fire, seismic events, and harsh environmental conditions. I look forward to your valuable contributions to these significant areas of research.

Guest Editor

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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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