

Behavior of Reinforced Concrete Structures under Extreme Conditions

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Message from the Guest Editors

Dear Colleagues,

We are delighted to announce a Special Issue on the topic of "Behavior of Reinforced Concrete Structures under Extreme Conditions". This Special Issue aims to bring together the latest advancements in understanding and mitigating the effects of extreme environmental conditions on concrete behaviour.

We seek contributions that address a range of topics, including but not limited to:

- Fire resistance of concrete
- Fire-induced spalling of concrete structures
- Seismic performance of concrete
- Nonlinear behaviour of concrete under seismic loads
- Corrosion and deterioration mechanisms in concrete
- Innovative materials for enhanced fire and corrosion resistance
- Fire protection strategies for concrete structures
- Retrofitting techniques for improving the seismic resilience of concrete structures
- Durability of concrete in corrosive environments
- Self-healing concrete for increased durability
- Case studies on successful applications and practical solutions



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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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