



Seismic and Durability Evaluation of Concrete Structures

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Message from the Guest Editors

Reinforced concrete is predominantly used as construction material for building structures. The seismic design of concrete structures has been studied by many researchers and the design philosophy put into design codes. However, seismic performance evaluation of existing concrete buildings, particularly structural forms that are not encouraged in higher seismic regions, and new construction technologies present challenges to structural engineers. Furthermore, given the nature of using steel as the reinforcement in concrete structures, long-term durability issues, such as corrosion that leads to cover spalling in these buildings due to extreme climate change, could degrade the structural performance of the structure.

The aim of this Special Issue is to collect and disseminate the latest research in the fields of seismic and durability evaluation of concrete structures from world-leading researchers and engineers. Contributions related to **numerical modeling, seismic assessment, seismic design codes, experimental testing, rehabilitation of structures, and corrosion damage studies of concrete structures** are most welcome.





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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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