Special Issue

Advanced Studies on Strength and Cracking of Prestressed and Reinforced Concrete Structures

Message from the Guest Editors

Concrete is one of the most common materials in the field of structural engineering. For this reason, its mechanical behavior and, even more, that of prestressed and reinforced concrete, has been a research topic through several approaches for years..... This Special Issue aims to gather advanced contributions that feature studies on prestressed and reinforced concrete structures, including ordinary, high-strength, lightweight, fiber-reinforced and recycled concretes. High quality manuscripts related to (but not limited to) the following topics are welcome:

- Advanced construction technologies;
- Development of design standards;
- Laboratory and field investigations;
- Monitoring techniques of deterioration conditions;
- Nondestructive testing methods;
- Linear and nonlinear analyses of geometric and material properties;
- Advanced discrete and finite element modeling;
- Serviceability issues under dynamic and static loading;
- Strengthening and repair interventions.

For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/buildings/special_issues/ Prestressed_Reinforced

Guest Editors

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Deadline for manuscript submissions

closed (20 August 2025)

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).