

Special Issue

Mechanical Properties and Durability of Concrete Materials and Structures

Message from the Guest Editor

This Special Issue focuses on recent advances in understanding and improving the mechanical properties and durability of concrete materials and structures. The collection presents cutting-edge research addressing critical challenges in concrete technology, from material composition to structural performance. Key topics include innovative testing methodologies, degradation mechanisms, durability enhancement strategies, and sustainable concrete solutions. Particular attention is given to emerging technologies for improving concrete durability and mechanical properties while considering environmental impact. The research findings contribute significantly to the development of more resilient and sustainable concrete infrastructure, offering practical solutions for civil engineering applications. This Special Issue serves as a comprehensive resource for researchers, engineers, and practitioners in the field of concrete technology, providing valuable insights into the latest developments and future directions in concrete materials and structural engineering.

Guest Editor

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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.

Editor-in-Chief

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