



## UHPC Materials: Structural and Mechanical Analysis in Buildings

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Deadline for manuscript  
submissions:

**31 January 2025**

### Message from the Guest Editors

Dear Colleagues,

In recent decades, ultra-high-performance concrete (UHPC) has evolved as a popular material in the construction of new structures and strengthening of existing infrastructures, due to its outstanding workability, mechanical properties (e.g., compressive, tensile, and bond strengths), and chemical resistance compared to the conventional concrete. However, higher demands have been required for UHPC materials and their corresponding structures in recent complex structures, such as high-rise buildings, long-span bridges, and long tunnels. In order to promote the wider application of UHPC, we are calling for paper submissions to this Special Issue on UHPC Materials: Structural and Mechanical Analysis in Buildings. The aim of this Special Issue is to provide an overview of the recent innovations and advances in the fundamental and practical fields of UHPC materials and their composite structures, with a special focus on their corresponding structural and mechanical analyses in buildings.

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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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