



The Strength, Strain and Durability of Concrete: Evaluating the Performance of Different Mix Designs

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Message from the Guest Editors

Dear Colleagues,

We are pleased to announce the Special Issue “The Strength, Strain and Durability of Concrete: Evaluating the Performance of Different Mix Designs”, in partnership with the journal *Buildings*, at Henan Polytechnic University, China, Dalian University of Technology, China and Zhejiang University, China.

This Special Issue seeks original research articles and reviews related to the mechanical and physical properties of concrete based on mix ratio change, including strength, strain, damage, and durability. Numerical simulations are also encouraged.

Potential topics may include structural engineering, construction engineering, hydraulic engineering, geotechnical engineering, environmental engineering and transdisciplinary engineering, including the influence of the concrete matrix and their mix designs on these structures.

These concretes include high-strength concrete (HSC), ultra-HSC (UHSC), high-performance concrete (HPC), ultra-HPC (UHPC), normal weight concrete (NEW), recycled aggregate concrete (RAC), lightweight concrete (LWC), ultra-LWC (ULWC), eco-friendly concrete (EFC), etc.

We look forward to receiving your contributions.



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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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