



## Advanced Concrete Structures in Civil Engineering

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### Message from the Collection Editors

Dear Colleagues,

We would like to warmly welcome you to submit your latest research work on design, construction, analysis, testing, monitoring and repair of concrete structures in civil engineering to this Topical Collection entitled “Advanced Concrete Structures in Civil Engineering” for the MDPI journal *Buildings*. The following topics are recommended, but your papers need not be limited to these:

- Structural design of concrete buildings and other civil engineering works
- Applications of high performance high strength concrete materials to structures
- Advanced construction technology of concrete structures
- Experimental investigations on concrete structures
- Numerical simulations of concrete structures under various loading and environmental conditions
- Development of concrete design standards
- Serviceability issues of concrete structures under dynamic loading
- Grand concrete structures other than buildings
- Strengthening and repair of concrete structures
- Interactions between concrete buildings and foundations
- Monitoring and inspecting of concrete structures





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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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