

Trends and Prospects in Civil Engineering Structures

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Message from the Guest Editors

The science and technology of civil engineering structures are closely related to the development of the economy, which profoundly affects the sustainable progress of human environments and societies. Many new structures, materials, and technologies have emerged in recent years, and introducing these into civil engineering structures has complex and diverse challenges. It is worthwhile to explore which direction civil engineering structures will develop and what kind of development trend this will present.

The main aim of this Special Issue is to explore the trends and prospects in civil engineering structures. Topics include but are not limited to:

- New high-performance structural systems;
- Civil engineering integrated disaster prevention and mitigation technology;
- Design, construction, and O&M technologies for building structures based on whole-life performance;
- Underground space structure construction technology;
- Structural health monitoring;
- Performance enhancement technology for existing structures;
- The intelligent architecture system;
- Structure design theory and method;
- A green eco-structure system;
- Composite, new material applications



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Special Issue

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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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