



Latest Advances of Green Concrete Technology in Civil Engineering

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Message from the Guest Editors

Concrete is one of the most widely used materials in the world; however, it has a significant impact on the environment, such as its large greenhouse gas emissions, its substantial consumption of natural resources, and the potential for a lack of durability. As a result, the concept of green concrete has been developed, with the components of ordinary concrete being fully or partially replaced with recycled materials. The concept of green concrete is not limited to the use of waste materials and also includes the improvement of its lifecycle sustainability.

This Special Issue aims to encourage researchers to publish their experimental or theoretical findings or solutions on low carbon and green materials in construction. Topics may include, but are not limited to:

- Green concrete;
- Recycled materials;
- Waste utilization;
- Recycled powder;
- Recycled aggregates;
- Construction and demolition wastes;
- Lifecycle sustainability;
- Ultra-high-performance concrete;
- Resilient infrastructures.

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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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