



Research on Fiber-Reinforced Composite Materials in Civil Engineering: Strengthening, Rehabilitation, and Application

Guest Editor:

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Message from the Guest Editor

Over the past two decades, fiber-reinforced polymer (FRP) composite materials have garnered widespread attention for the repair of existing and deteriorated infrastructure. FRP composites can enhance the durability of structures while being lightweight, facilitating the ease of installation. Extensive research has revealed that using fiberglass for shear and flexural infrastructure strengthening presents a continuous solution. The effective utilization of FRP composites in engineering infrastructure has significantly addressed major issues related to the repair and aging of existing infrastructure. This Special Issue aims to solicit research findings on the strengthening, rehabilitation, and application of FRP in civil engineering. Experiments, modeling, and case studies will all be taken into consideration.

Topics of interest include, but are not limited to, the following areas:

- FRP composites for concrete infrastructure;
- FRP–steel–concrete composite structure;
- Maintenance and operation of concrete infrastructure;
- Sustainable development in the construction industry.





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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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