

Special Issue

Advances in Reinforced Concrete Infrastructure: Enhancing Structural Resilience and Promoting Sustainability

Message from the Guest Editors

The growing number of reinforced concrete structures nearing the end of their service life requires attention due to environmental degradation and increased loads. Many are now considered structurally deficient or obsolete, highlighting the need for innovative design and rehabilitation strategies. Recent advancements in reinforced concrete focus on sustainability, durability, and resilience through materials like Fiber-Reinforced Polymers (FRP). Computational modeling, structural health monitoring (SHM), and fatigue assessments are key to enhancing resilience and safety. Innovations such as "maintenance-free" concrete, 3D printing, and nanotechnology improve efficiency, while BIM and advanced repair techniques address issues like corrosion and cracking. These efforts aim to overcome traditional concrete's limitations and enhance performance. This Special Issue will discuss recent advancements in reinforced concrete performance, service life extension, and environmental concerns, with a focus on smart city applications in civil engineering. Submissions should contribute to the science of infrastructure maintenance and rehabilitation.

Guest Editors

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