

Application and Durability of Composite Materials in Construction Engineering

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Message from the Guest Editors

It is with great pleasure that we announce the new Special Issue of Buildings, entitled "Application and Durability of Composite Materials in Construction Engineering".

You are warmly invited to submit your contribution to this Special Issue on the topic of composite materials for structural applications, involving both organic (FRP) and inorganic (FRCM, TRM, SRG, CRM) matrix composites. The Special Issue welcomes original research articles, case studies and literature reviews on the use of composite materials either as a method for externally bonded strengthening for existing structures or as internal reinforcements of reinforced concrete elements. The application of these materials has become, nowadays, a common practice in construction engineering; however, some aspects inherent to the design of their applications and their long-term behaviour are still under investigation in the scientific community.

Contributions to this Special Issue can include, but are not limited to, topics related to the application of externally bonded and internal composite reinforcements that are investigated from an analytical, numerical and experimental point of view.



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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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