Special Issue

Cement-Based Materials and Construction Materials: Modeling, Characterization, and Mechanical Behavior (Second Edition)

Message from the Guest Editors

In recent decades, the field of construction materials and engineering has greatly advanced with the development of new materials and improved characterization techniques. This has led to the creation of new models that can simulate the mechanical behavior of different materials, including concrete and reinforced concrete. Cement-based materials are complex systems that have transient physical and mechanical properties. Understanding the mechanical behavior of cement-based materials is essential for predicting structures' durability and safety over time. Modeling and characterization techniques offer a better understanding of the mechanical behavior of different materials, allowing for improved design and performance. New materials, such as fiber-reinforced concrete and ultrahigh-performance concrete, are also emerging, offering enhanced durability and improved mechanical properties. The continued development of models and characterization techniques allows for better design and analysis of construction materials and structures, assisting engineers in providing safe and sustainable solutions for infrastructure projects.

Guest Editors

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