Special Issue

Extreme Performance of Composite and Protective Structures

Message from the Guest Editors

Modern structural design must focus on withstanding extreme dynamic loads due to threats like blasts, high winds, hurricanes, and earthquakes. Protective buildings need new requirements to ensure safety and functionality. This involves understanding dynamic loading and using innovative materials and strategies. In the Special Issue "Extreme Performance of Composite and Protective Structures," we welcome contributions on structural analysis, design techniques, and protective composites for buildings facing extreme conditions. This collection targets academics, engineers, architects, and other professionals.

We invite authors to contribute original research articles, comprehensive reviews, and insightful case studies to this Special Issue. Topics of interest include, but are not limited to:

- Structural dynamic approaches and numerical applications
- Blast resistance structures
- Impact analysis and mitigation
- Structural performance assessment under natural hazards
- Risk and mitigation analysis
- Experimental methods and results
- Numerical modeling
- Vibration analysis and dynamic characterization
- Shock tube testing and blast field testing

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About the Journal

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.

Editor-in-Chief

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