



Structural Performance and Damage Assessment of Reinforced Concrete Structures Exposed to High Strain Rate Loads

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Message from the Guest Editors

Dear Colleagues,

Reinforced concrete (RC) structures might subject to severe impulsive loadings due to shock wave, blast wave or direct impact in their service life. Many impact and explosion incidents caused significant structural damages, which in turn generates huge amount of economic loss, and sometimes claimed many lives. Moreover, these incidents always induce significant psychological impact on the general societies. In response to threats from explosion and impact loads for human and infrastructure protection, the development of various impact and blast resistant design guidelines and scientific research has recently become a priority of many governments worldwide.

Therefore, the main aim of this Special Issue is Structural performance and damage assessment of reinforced concrete structures exposed to high strain rate loads. Topics include but are not limited to:

- Blast and impact loading;
- Finite element modeling;
- Damage assessment;
- Strain-rate effect;
- Structural strengthening;
- Structural dynamics;
- Protective structures;
- Structural response.





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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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