

Special Issue

Advances in Engineering Structural Systems

Message from the Guest Editors

Modern engineering structural systems tend to exceed all normal standards of size, complexity and technology. These large-scale complex or unique structures are inherently vulnerable to extreme climatic hazards which are exacerbated by climate change. New performance-based design methodologies against multi-hazards, innovative inspection and monitoring technologies enhanced by AI have been emerged and applied through the development of these projects across their life-cycle processes, e.g., design, construction and operation, to ensure their high reliability and resilience under extreme environmental conditions. This special collection aims to highlight the development of performance-based analysis and design methodologies and to understand the mechanics and dynamics of existing and new engineering structural systems under extreme natural hazards. This call is an invitation to broader structural engineering communities to contribute related to this topic.

Keywords:

- performance-based design
- multi-hazard resistant design
- structural mechanics and dynamics
- extreme environment
- structural reliability and resilience
- AI aided inspection and construction

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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