



Advances in Engineering Structural Systems

Guest Editors:

Prof. Dr. Mingfeng Huang

Institute of Structural
Engineering, Zhejiang University,
Hangzhou 310058, China

Dr. Haiwei Xu

College of Civil Engineering and
Architecture, Zhejiang University,
Hangzhou 310058, China

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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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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

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Applied Sciences Editorial Office
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