

Special Issue

Seismic Analysis of Buildings

Message from the Guest Editors

Over the last few decades, interest in earthquake-resistant design has increased, following a switch in the approach from a force-based point of view to a performance-based framework, in which for different earthquake intensity levels, the structure is designed according to selected performance objectives. In view of this, proper design approaches to predict the dynamic response of the structure have been developed and applied to several case studies, from equivalent static analysis to more sophisticated nonlinear dynamic analysis. Moreover, ad hoc bracing systems and dissipative equipment have been considered and tested to reduce the seismic action on the resisting structure, either limiting the horizontal drift or concentrating the damage on fusible parts. Concerning the structure itself, form optimization techniques have been applied to create new solutions able to resist the horizontal action with less damage.[...] For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/buildings/special_issues/Seismic_Analysis

Guest Editors

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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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