Special Issue

Base Isolation for Earthquake-Resistant Design

Message from the Guest Editor

The base isolation of structures is a well-established and mature technology for earthquake-resistant design. Contemporary research works on seismic base isolation are aptly furthering the efforts towards improving the performance of structures. For this Special Issue, articles reporting original research contributions on the base isolation for earthquake-resistant design are solicited. Reports on innovative base isolators and new base isolation systems are being developed, and rigorous testing will also be published. The practical implementation of base isolation technology in new and existing structures through in-depth case studies are also to be included. Floor isolation, the performance of secondary structures, and non-structural components in base-isolated structures are also topics of consideration. Apart from passively used base isolation systems, adaptive, semi-active, active, and hybrid control of structures with base isolation shall also find place in this Special Issue. Smart base isolation systems, wherein new control algorithms are used, e.g., those based on artificial intelligence (AI) and machine learning (ML), are welcome for consideration too.

Guest Editor

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Deadline for manuscript submissions

closed (20 May 2023)

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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.

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