Special Issue

Modeling and Testing the Performance of Masonry Structures

Message from the Guest Editors

Masonry structures constitute many important historical buildings, existent bridges, and industrial constructions all over the world. Different typologies of masonry - mainly bricks or stones – are present in constructions with cultural, artistic, and monumental role. These kinds of constructions are in areas only nowadays classified as seismic ones. Therefore, structural improving under seismic actions represents a strategic goal. The present Special issue is aimed to the following topics, including but not limited: - Static and dynamic tests on masonry elements; - Non-destructive testing techniques; - Advanced theoretical and numerical models; - Constitutive laws for masonry - Mathematical models for the plasticity in masonry elements; - Techniques to improve to the seismic response of masonry constructions; - Smart bricks for strain monitoring

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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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