buildings

an Open Access Journal by MDPI

IMPACT FACTOR 3.1

CITESCORE 3.4

Application of Finite Element Modelling in Civil and Structural Engineering

Guest Editors:

Dr. T. Tafsirojjaman
School of Civil Engineering and Surveying and Centre for Future Materials, University of Southern Queensland, Toowoomba, QLD, Australia

Prof. Dr. Yue Liu
Central Research Institute of Building and Construction, MCC Group, Xitucheng Road 33, Beijing 100088, China

Prof. Dr. Scott T Smith
Faculty of Sciences, Engineering and Technology, University of Adelaide, Adelaide, SA 5005, Australia

Deadline for manuscript submissions:
closed (31 December 2023)

Message from the Guest Editors

Dear Colleagues,

Computer-based FE modelling is a very popular and extensively used numerical simulation technique for simulating complex real-world problems. Finite element modelling (FEM) techniques offer a cost-efficient and -effective way to simulate the structural response of small- and full-scale structural elements and structures. This Special Issue deals with the application of finite element modelling in structural engineering and civil infrastructures. The range of potential topics includes numerical simulation of the static and dynamic (cyclic, seismic, impact and blast loadings) behaviour of concrete, steel and composite structures. In addition, other topics include simulating the structural performance of retrofitted, strengthened and rehabilitated structures numerically by using finite element modelling.

This Special Issue will also accept state-of-the-art reviews on the application of finite element modelling in structural engineering.

buildings

IMPACT FACTOR 3.1

CITESCORE 3.4

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. David Arditi
Construction Engineering and Management Program, Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, 3201 South Dearborn Street, Chicago, IL 60616, USA

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.
Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (Architecture)

Contact Us

Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
𝕏@Buildings_MDPI