



Applications and Developments in Building Information Modeling (BIM) in Construction

Guest Editors:

Dr. Davide Simeone

Department of Civil,
Environmental, Architectural
Engineering and Mathematics,
University of Brescia, Via Branze
43, 25123 Brescia, Italy

Prof. Dr. Marianna Rotilio

DICEAA-Department of Civil,
Construction-Architectural and
Environmental Engineering,
University of L'Aquila, 67100
L'Aquila, Italy

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Message from the Guest Editors

Dear Colleagues,

Digital and information approaches are radically transforming the way construction processes are performed and managed, deeply impacting productivity, sustainability and the safety of workers. The construction industry is looking with strong interest at the novelty provided by both new paradigms and consolidated digital concepts that are still under implementation in this relevant sector.

This Special Issue “Applications and Developments in Building Information Modeling (BIM) in Construction” aims to collect recent advancements regarding the contribution of digital techniques and methods to the planning, management and optimization of construction sites and operations, for the realization or renovation of buildings and infrastructures. It welcomes high-quality original research papers presenting digital applications in the construction field including (but not limited to) digital twin, BIM, simulation models, construction planning, computer vision, machine learning, digital approaches to sustainability and gamification models and approaches.

Dr. Davide Simeone

Prof. Dr. Marianna Rotilio

Guest Editors



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.

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Buildings Editorial Office
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