Special Issue

Robotics, Automation and Digitization in Construction

Message from the Guest Editors

The Construction sector is in the need of a transformation. There are several reasons. For instance, the productivity rate in Construction is below other sectors such as Manufactruing Industry. Moreover, the Construction sector is facing a lack of personnel in all of its phases, from planning to execution. Finally, the accident rate is very high in Construction. For all these reasons, digitization, automation and robotics is playing a crucial role in order to gain better conditions and performance in all phases of the construction phases This Special Issue entitled “Robotics, Automation and Digitazitation in Construction” aims to cover topics related to the technological improvement of Construction in all its phases, such as: Automated Data Acquisition of the Built Environment; Robot Oriented Design in Construction, that facilitates a lean manufacturing and assembly process; Data flow, from data acquisition to on-site works; Robotic Off-site Manufacturing; Robotic On-site Execution and Maintenance; Computational Design Oriented to Robotics. I look forward to receiving your contributions.

Guest Editors

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closed (30 April 2026)

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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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