



Robotics and Automation in the Construction Industry

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Message from the Guest Editors

The special issue, “Robotics and Automation in Construction Industry” is very challenging in the era of the Fourth Industrial Revolution and is expected to enhance the image of the construction industry and fulfill the role of replacement or assistance of insufficiently skilled workers. In addition, it is emerging as a cutting-edge technology that can improve the quality, efficiency, productivity, and safety of construction projects. Therefore, this special issue aims to share ideas and achievements in the field of construction automation and robotics, which have recently been under research and development worldwide. The special issue covers the original research and review studies, including but not limited to:

- Automated Construction System
- Construction Robotics
- Smart Construction Equipment
- Modular Construction/OSC(Off-Site Construction)
- 3D Printing Technology
- Construction Simulation
- Digital Twin/MR/AR/VR
- AI/Machine Learning/Deep Learning
- CNN/ANN
- Computer Vision



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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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