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Application of Automation and Internet of Things for Health, Safety, and Ergonomics in Construction

Guest Editors:

Prof. Dr. Heng Li
Department of Building and Real Estate, Faculty of Construction and Environment, Hong Kong Polytechnic University, Hong Kong, China

Dr. Shahnawaz Anwer
Department of Building and Real Estate, Faculty of Construction and Environment, Hong Kong Polytechnic University, Hong Kong, China

Deadline for manuscript submissions:
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Message from the Guest Editors

With growing concerns about worker safety and health, it is more critical than ever to monitor excessive physical workloads in order to avoid worker fatigue, injury, or accident in physically demanding environments. Numerous methods have been used to evaluate construction workers' health, safety, and ergonomics. Automation and the internet of things provide objective assessment and continuous monitoring of a number of key parameters, which can assist in providing early warning in workers at high risk for health problems. This Special Issue aims to publish technical, empirical, and review papers that are both practical and theoretical contribution to cutting-edge automation and internet of things technology, as well as the latest research findings and practical interventions for improving construction health, safety, and ergonomics.

Wearable sensing technology;
Automation and robotics in construction;
Biomechanical analysis;
Machine learning;
Deep learning;
Artificial intelligence;
Internet of things;
Digital twin;
Ergonomics;
Physiological monitoring;
Computer vision;
Physical or Mental fatigue;
Application of Virtual and Augmented Reality (VR/AR);

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Special Issue

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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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Contact Us

Buildings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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buildings@mdpi.com
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