

Special Issue

Smart Construction Ecosystems: Enhancing Safety and Sustainability Through Emerging Technologies

Message from the Guest Editors

The construction industry is currently undergoing a technological revolution driven by the integration of smart systems and emerging digital tools. Technologies such as BIM, IoT, AI, and Digital Twins are transforming traditional construction methods into intelligent, data-driven processes. These advancements enable real-time monitoring, improved decision-making, enhanced safety protocols, and greater environmental sustainability across the project lifecycle. As global demand for sustainable and resilient infrastructure grows, the need for smarter, more connected construction ecosystems has become increasingly urgent. Smart construction not only enhances operational efficiency but also contributes to safer work environments and reduced environmental impacts. This Special Issue explores how these emerging technologies are reshaping construction management, design, and on-site execution. Topics range from safety analytics and automation to sustainable materials and digital project delivery. Ultimately, this Special Issue provides a platform to advance the vision of a smarter, safer, and more sustainable built environment.

Guest Editors

Prof. Dr. JeongWook Son

Department of Architectural and Urban Systems Engineering, College of Engineering, Ewha Womans University, Seoul 120-750, Republic of Korea

Dr. Jinyoung Kim

Department of Architectural Engineering, Ajou University, Suwon, Republic of Korea

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario
Institute of Technology, Oshawa, ON L1G 0C5, Canada

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