Special Issue

Robotics and Automation Systems in Construction: Trends and Prospects

Message from the Guest Editors

Robotics and automation systems play a crucial role in revolutionizing the construction industry by enhancing productivity, improving safety, and addressing labor shortages. Studies emphasize that automation and robotics can contribute to circular construction by boosting productivity, reducing waste, and mitigating labor shortages. However, challenges such as fragmented construction processes, worker resistance, lack of expertise, and inadequate support from top-level management hinder the full deployment of robotics and automation systems in the construction industry. In this regard, this Special Issue invites you to submit original research papers focused on "Robotics and Automation System in Construction: Trends and Prospects". Topics may include, but are not limited to, the following:
Artificial intelligence and automation in construction;
Human–robot collaboration;
Construction robotics and equipment in safety management;
Robotics systems for sustainable construction;
On-site automated and robotic systems;
Off-site automated prefabrication systems;
Drones and autonomous vehicles in construction;
Sensing technologies and construction automation.

Guest Editors

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Deadline for manuscript submissions

closed (20 July 2025)

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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