Special Issue

Advances in Additive Manufacturing and Construction 4.0: 2nd Edition

Message from the Guest Editors

This Special Issue on "Advances in additive manufacturing and Construction 4.0" encourages researchers and practitioners to share their knowledge, results, technologies, and methods about the synergy between additive manufacturing and other construction 4.0 technologies and practices. The potential topics include, but are not limited to:

- Additive manufacturing and construction 4.0:
- Additive manufacturing and Building Information Modeling (BIM);
- Additive manufacturing and lean construction;
- Additive manufacturing and construction automation and robotics;
- Additive manufacturing and digitization in construction (Artificial Intelligence, Internet of things, Digital Twins, Augmented, Virtual, and Mixed Reality, Blockchain. etc.);
- Life cycle analysis for 3D-printed materials;
- Circular models for 3D-printed projects;
- The use of ecological and green materials in additive manufacturing;
- Logistic management for 3D-printed materials;
- The durability for 3D printing.

Guest Editors

Prof. Dr. Zoubeir Lafhaj

Prof. Dr. Tarek Zayed

Dr. Wassim Al Balkhy

Deadline for manuscript submissions

closed (25 October 2025)



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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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