

Special Issue

Digital Twins in Construction, Engineering and Management

Message from the Guest Editors

Digital twin is a technology that is making waves in all industries due to its ability to provide access to real-time data, status and future conditions, virtual representation of a physical asset, and linking both the physical and virtual domains. Although, current applications of digital twin in the construction, engineering and management industries are confronted with several challenges, its adequate implementation has enormous benefits. Thus, Digital Twin technology has significant potential for improvement, great attention has been geared towards, its application in the construction, engineering and management industries. The aim of this Special Issue is to explore the application of digital twin in construction, engineering and management, specifically facilities management. Potential topics for this Special Issue include, but are not limited to, the following:

- Construction digital twins;
- Digital twins for building projects;
- Digital twins for infrastructure projects such as bridges, etc.;
- City-level digital twins;
- Digital twins for facility management;
- Cost implications of digital twins;
- Ethics in digital twins.

Guest Editors

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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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