Special Issue

BIM and Advanced Technologies: Recent Applications and Future Perspectives

Message from the Guest Editors

As the backbone of the fourth industrial revolution, the building information modeling (BIM)-enabled digital economy in the building industry is considered to have a disruptive effect. Studies have shown that BIM and its associated digital technologies (BIM dig-ecosystems). such as city information modeling (CIM), internet of things (IoT), artificial intelligence (AI), virtual reality (VR), augmented reality (AR), mixed reality (MR), big data, data visualization, machine learning (ML), blockchain, digital twin, and even building the Metaverse, have great potential in promoting sustainable building development. Therefore, the BIM tech ecosystems have received much attention from policy makers, practitioners, and scholars around the world. The aim of this Special Issue is to review cases and recommend technologies and policies for the transition of the emerging theory and practice of BIM to the future perspectives on BIM dig-ecosystems.

For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/buildings/special_issues/5THV8C1C6J

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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.

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