Special Issue

Building Information Modeling (BIM) and Digital Twins for Sustainable and Resilient Construction

Message from the Guest Editor

This Special Issue focuses on the transformative integration of BIM and Digital Twin technologies to advance sustainability and resilience across the construction and built environment lifecycle.

Emphasis is placed on sustainability by optimizing energy performance, minimizing material waste, reducing carbon footprints, and enhancing the circularity of construction materials through advanced modeling, simulation, and predictive analytics.

The Special Issue will also examine the application of these technologies in improving the built environment's resilience. This includes using Digital Twins for real-time risk assessment, emergency response planning, and lifecycle performance monitoring to ensure long-term structural and functional integrity.

Submissions should highlight novel frameworks, methodologies, case studies, and practical applications that bridge the gap between static BIM models and dynamic Digital Twins, leveraging technologies like IoT, AI, Machine Learning, and cloud computing to create intelligent, self-aware, and actionable representations of physical assets.

Guest Editor

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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.

Editor-in-Chief

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