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# **Building Information Modeling (BIM): Advance and Future Trends**

Guest Editor:

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#### Message from the Guest Editor

In recent years, the advancement of the BIM methodology has been evolving through standards, revisions, updates, and improvements, with the goal of finding the essential elements that will make it the perfect technology for the construction industry. With the idea of completing the concept of a virtual model and digital twin, BIM is conceived as a methodology that creates a unique model for each project, allowing for digital design simulations, with a focus on information, transparency, and collaboration.

This Special Issue aims to identify the key pathways that the BIM methodology will need to follow in the future to address the challenges, needs, and uncertainties in the AEC sector.

Topics include but are not limited to:

- New perspectives and trends in BIM.
- Simulations with virtual models and digital twins through BIM.
- Virtual reality, augmented reality, mixed reality, and extended reality with BIM.
- Connectivity of the real world with BIM projects.
- Programming on BIM.
- Computational and data science applied to BIM.
- Big data applications, algorithms, and systems on BIM.
- AI,ML, and deep learning applied to BIM.
- Development of software for new solutions on BIM.





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# **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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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