

Special Issue on Advanced BIM Applications in the Construction Industry

CALL FOR PAPERS

Rapid technological advancement stimulates change and innovation in the construction industry. Continued industrial digitization provides the opportunity to apply new ways of planning and implementing a construction project. Building Information Modeling (BIM) has been developing and popularly used since the early 2000s, considered to be one of the key innovative technologies in the construction industry. It proved to be an intelligent digital representation of buildings to support diverse activities throughout the lifecycle of the building. BIM has influence on various aspects of project delivery, for example, the way collaboration occurs among different project stakeholders. Despite major technical advancements associated with BIM applications, its extent of adoption within the industry is far from satisfactory, largely due to the necessity of substantial change in the supply chain and risks and challenges associated with this change.

This special issue aims to investigate current BIM practices, advanced developments, and critical effects of BIM on collaborative design and construction. BIM effects will be discussed into three dimensions: technology, people, and processes. Submissions that address investigation of BIM applications for new construction and energy retrofitting, describe methodologies for BIM-enabled project performance assessment, present advanced collaborative approaches in BIM-enabled projects, and present strategies for the recognition of specific BIM related competences are encouraged.

Potential topics include but are not limited to the following:

- ▶ Best practices for enhancing collaboration in BIM-based networks
- ▶ BIM-enhanced life-cycle management
- ▶ Linking BIM and energy performance optimization
- ▶ Methodologies for BIM-based project performance assessment
- ▶ BIM-enabled site optimization and automation
- ▶ BIM-enabled numerical analysis, simulation and decision support systems
- ▶ Construction site safety and productivity enhancement through BIM implementation
- ▶ Inclusion of BIM in innovative delivery and procurement methods
- ▶ BIM within the Lean Construction approach
- ▶ Integration of BIM into facility management practices
- ▶ BIM potential for Civil and Structural Engineering practice
- ▶ Strategies for introducing BIM at university level
- ▶ BIM adoption and implementation in Small and Medium sized Enterprises (SMEs)
- ▶ Risks and challenges associated with implementing BIM in construction projects
- ▶ Knowledge, Skills, and Abilities (KSAs) associated with BIM in the construction industry

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ace/bimac/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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