Advances in Civil Engineering

Hindawi

Special Issue on

Adapting the Building Information Modelling Methodology for Existing Buildings

CALL FOR PAPERS

The concept of the building information modelling (BIM) methodology in the construction sector has brought significant challenges to the work practices of design and teaching. It has imposed changes not only at the technological level but also in our underlying culture. Therefore, in an office, a company, or school, a number of strategies of action and adaptation have been established to lead the effective implementation of BIM in the construction sector. There are directives and independently developed guides, followed by different specialties. It requires collation, systematization, and dissemination.

Developing projects based on digital design has been replaced by the design and manipulation of parametric BIM models. It requires a procedural adaptation of integration and collaboration between partners. In education, BIM has become part of the curriculum. It has greatly contributed to the training of engineers, adding or updating their knowledge and skills in technology. BIM considers various interrelated activities such as modelling, collaboration, process integration, and limitations associated with interoperability between systems. BIM-related activities involve structures, mechanical, electrical, and plumbing (MEP) services, construction, budgeting or maintenance.

The modus operandi of collaboration and communication between partners requires a well-thought-out change based on the individual responsibilities directed by the BIM manager. This is also essential for the organization of a project focussed on BIM model and the transfer of information between experts, suppliers, and the owner of the work. BIM methodology requires new procedures and effective learning environments. Academia should be more involved in teaching this topic and discussing incorporating new BIM procedures in companies. Current and novel BIM procedures should also be disseminated amongst the civil engineering community, so that each company, office or academy can easily and efficiently adopt and adapt. By following the action guides, they will avoid errors or delays in the construction process.

The aim of this Special Issue is to bring together original research and review articles related to the implementation strategies of building information modelling (BIM) methodology. Submissions should particularly discuss design offices, medium or large capacity companies, which have carried out the BIM methodology to adapt from traditional work practices.

Potential topics include but are not limited to the following:

- Reorganization of BIM related projects in terms of planning and coordination
- BIM implementation actions in general, by sectors and by emerging enterprises
- BIM manager function such as responsibility assignment and collaboration demand
- BIM in education such as curriculum adaptation and professional course offers
- Effective BIM learning strategies for students and professionals
- Practical implementation of BIM versus the theory of BIM
- BIM contribution to sustainability
- Benefits and limitations of BIM in enterprises and design processes
- Technological innovations in BIM management such as BIM tools and open BIM sources
- Future trends in BIM implementation for architecture, engineering, and construction (AEC) enterprises

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.hindawi.com/submit?specialIssue=689711.

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

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