

Editorial

Special Issue “BIM Implementation to Meet the Changing Demands of the Construction Industry”

Stephen Paul Coates

School of Environment and Engineering, University of Salford, 43 Crescent, Manchester M5 4WT, UK;
s.p.coates@salford.ac.uk

Effective Building Information Modelling implementation continues to evolve, aligning itself to the changing needs of the construction industry. These activities can be considered from a range of perspectives. We can adopt a people-centric, process centric, product-centric approach or a combination of these approaches.

A total of 10 papers were received covering these different aspects and the different stages of project delivery. Collectively, they add to the body of knowledge in the BIM implementation domain and align to the changes happening within the construction industries. Semaan et al. [1] investigated work-based education and training needs as part of effective BIM adoption. Dermirdogen et al. [2] considered the business intelligence and analytics aspects of the subject area. Two of the papers submitted took a tool-based approach. Hagedorn et al. [3] looked at toolchains for interoperable BIM workflows in Web-based integration platforms. In comparison, Keibach et al. [4] undertook an evaluation of software tools based on ISO 25010 for landscape design and improving climate adaptation planning. Focusing on BIM applied to specific tasks, several papers were received. Bazan et al. [5] focused on a BIM—Based methodology for the Management of Public Heritage. In comparison, Mayer et al. [6] focused on Hazard Detection processes in BIM. Specific project types were addressed in two papers. BIM and GIS applications in Bridge Projects were addressed by Wei et al. [7]. In comparison, BIM in High Rise buildings towards sustainability was addressed by Manzoor et al. [8]. Considering a specific stage for addressing in one paper, Pinti et al. [9] undertook a review of Building Information Modelling for facilities management. Focusing on improvement, Zheng et al. [10] undertook an analysis of the improvement of BIM Based Digitalization in Engineering, Procurement, and Construction (EPC) on projects in China.

Although submissions for this Special Issue have been closed, more in-depth research in the field of BIM implementation continues to address the challenges the construction industry faces today, such as climate change, changes in technology, and drive for faster, cheaper, and higher quality building and infrastructure development.

Funding: This research received no external funding.

Acknowledgments: Thanks to all the authors and peer reviewers for their valuable contributions to this Special Issue, “BIM Implementation to Meet the Changing Demands of the Construction Industry”. Special thanks to my fellow editors, Adonis Haidar and Suha Jaradat. I express my gratitude to all the staff and people involved in this Special Issue.

Conflicts of Interest: The author declares no conflict of interest.



Citation: Coates, S.P. Special Issue “BIM Implementation to Meet the Changing Demands of the Construction Industry”. *Appl. Sci.* **2023**, *13*, 6089. <https://doi.org/10.3390/app13106089>

Received: 4 May 2023

Accepted: 9 May 2023

Published: 16 May 2023



Copyright: © 2023 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

1. Semaan, J.; Underwood, J.; Hyde, J. An Investigation of Work-Based Education and Training Needs for Effective BIM Adoption and Implementation: An Organisational Upskilling Model. *Appl. Sci.* **2021**, *11*, 8646. [[CrossRef](#)]
2. Demirdogen, G.; Isik, Z.; Arayici, Y. Determination of Business Intelligence and Analytics-Based Healthcare Facility Management Key Performance Indicators. *Appl. Sci.* **2022**, *12*, 651. [[CrossRef](#)]
3. Hagedorn, P.; Block, M.; Zentgraf, S.; Sigalov, K.; Konig, M. Toolchains for Interoperable BIM Workflows in a Web-Based Integration Platform. *Appl. Sci.* **2022**, *12*, 5959. [[CrossRef](#)]
4. Keibach, E.; Shayesteh, H. BIM for Landscape Design Improving Climate Adaptation Planning: The Evaluation of Software Tools Based on the ISO 25010 Standard. *Appl. Sci.* **2022**, *12*, 739. [[CrossRef](#)]
5. Bazan, A.; Alberti, M.; Alvarez, A.; Pavon, R.; Barbado, A. BIM-Based Methodology for the Management of Public Heritage. CASE Study: Algeciras Market Hall. *Appl. Sci.* **2021**, *11*, 11899. [[CrossRef](#)]
6. Mayer, P.; Funtik, T.; Gasparik, J.; Makys, P. Analysis of the Current State of Automation of Hazard Detection Processes in BIM in Slovakia. *Appl. Sci.* **2021**, *11*, 8130. [[CrossRef](#)]
7. Wei, J.; Chen, G.; Huang, J.; Xu, L.; Yang, Y.; Wang, J.; Sadick, A. BIM and GIS Applications in Bridge Projects: A Critical Review. *Appl. Sci.* **2021**, *11*, 6207. [[CrossRef](#)]
8. Manzoor, B.; Othman, I.; Kang, J.; Geem, Z. Influence of Building Information Modeling (BIM) Implementation in High-Rise Buildings towards Sustainability. *Appl. Sci.* **2021**, *11*, 7626. [[CrossRef](#)]
9. Pinti, L.; Codinhoto, R.; Bonelli, S. A Review of Building Information Modelling (BIM) for Facility Management (FM): Implementation in Public Organisations. *Appl. Sci.* **2022**, *12*, 1540. [[CrossRef](#)]
10. Zheng, Y.; Tang, L.; Chau, K. Analysis of Improvement of BIM-Based Digitalization in Engineering, Procurement, and Construction (EPC) Projects in China. *Appl. Sci.* **2021**, *11*, 11895. [[CrossRef](#)]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.