

## Driving innovation through Lean- and BIM-based theory and practice

Construction clients and organisations are coming under increasing pressure to deliver projects in a resource-constrained environment. With a renewed emphasis on process improvement and waste reduction using BIM and emerging technologies and processes, there is a scope to better explore state of the art on how Lean process optimisation is being implemented to deliver value by minimising waste.

In this special issue, we have eight papers each has a unique perspective to BIM and Lean synergies via theoretical, empirical and industry case studies. All strongly address how construction challenges should be systemically addressed via an integrated consideration of BIM and Lean. For example, Ritu Ahuja *et al.* introduce a systematic framework of organisational capacity building in BIM for Lean and green outcomes while Denise Brady *et al.* prescribe a model for visual construction planning for improved transparency and communication. Koseoglu and Güneş demonstrate how mobile BIM use in large-scale construction project enables to gain lean efficiencies. Lena Elisabeth *et al.* recommend strategies for effective communication to successfully implement lean principles and Koseoğlu *et al.* critically discuss how BIM use helped to gain lean efficiencies in terms of cost, time and resources in the Istanbul Grant Airport project. Othman and Khalil interrogate lean design thinking for creativity in architectural firms. Last but not least, Ruouyo Jin *et al.* introduce a project-based approach for the adoption of BIM in a multidisciplinary nature. Finally, Ayinla and Adamu discuss the technological challenges and gaps and address how to overcome for BIM use and lean gains.

**Zeeshan Aziz**

*School of the Built Environment, University of Salford, Manchester, UK, and*

**Yusuf Arayici**

*Department of Civil Engineering, Hasan Kalyoncu Universitesi, Gaziantep, Turkey*

