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Editorial: Digital technologies for construction management

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Editorial on the Research Topic

Digital technologies for construction management

The growth of the construction sector means an ever-growing demand for job opportunities, economic growth, and the growth of other industries by laying the foundations for infrastructure. However, in recent years the construction industry faced several challenges such as lagging productivity and safety, financial pressure, sustainability and so on. Digital Construction, defined as utilising digital technologies to construct more efficiently with higher quality, could provide an answer. But, when we look at IT investments, the sector has historically underinvested in technology. Still, we believe that digitalization presents a significant opportunity to not only deal with these challenges, but to use them to thrive.

The objectives of this Research Topic are to document the state-of-the-art in the adoption of various digital technologies in construction management, to compare various perspectives on these digital technologies, and to identify the future directions of research and development. This Research Topic has explored the potential of implementation of these technical paradigms in a real-life project context, including approaches which have been undertaken by academia and industry in dealing with issues, such as the lack of productivity and safety in the construction industry. The published papers to this Research Topic have well archived the unique features out of the developed platforms that address construction site safety (Luo et al.), production and process management (Nassereddine et al.), assets and facilities management (Duong and Lin), and a wider range of technological use-cases (Nassereddine et al.). Besides, these works define and implement best practice construction workflows, and establish the paradigms that every incumbent can be on the same page at the same time and make better decisions faster. It simply means that resources can be

optimised, risks are mitigated, and rework is avoided. It also means that teams spend more time working on value-added tasks. Ultimately, construction technology is helping firms to deliver projects more efficiently, safely, and profitably.

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Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

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