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## Technological Innovation and Risk Management in Projects: Pathways to a Sustainable Future

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This special issue contains papers selected from the 13th International Conference on Engineering, Project, and Production Management (EPPM 2023) held in Auckland, New Zealand from 29 November to 1 December 2023. The conference's theme was "Creating Capacity and Capability: Re-energising Supply Chain for Sustainable Management of Projects and Productions in Engineering". The papers in this issue illuminate how the engineering, project and production management disciplines respond to technological innovation, sustainability imperatives, and evolving risk landscapes. The articles describe how these multi-disciplines are transforming and leveraging cutting-edge technologies while grappling with environmental challenges and complex project delivery requirements.

The article by Daemei et al. demonstrates how simulation technologies can inform sustainable design decisions, particularly in the context of climate change in Oceanic climates. By studying the thermal performance of green roofs, they reveal the potential to reduce total fuel consumption significantly, consequently contributing to climate change adaptation strategies that could meet 2050 SDG targets. Daemei et al. research aligns perfectly with broader efforts to leverage technology for environmental benefits. Ndlovu et al. showcase the critical importance of risk management approaches during vulnerable situations, evident during the COVID-19 pandemic. They investigated how Quantity Surveyors adapted their practices to minimise risks whilst facilitating project delivery. Their study findings underscore the need for robust collaboration between stakeholders as a risk mitigation strategy for meeting project deliverables under uncertainties. Furthermore, Rasheed, Shahzad and Rotimi examined risk allocation within social infrastructure public-private partnerships (PPP) in New Zealand. Through some empirical analyses of the viewpoints of 43 respondents who had prior involvement in PPP projects, they could offer insights into more efficient risk allocation criteria to achieve fair risk allocation on PPPprocured projects. Their findings emphasise an understanding of the risk management capacities of both the public and private sector partners in the context of their identified risk allocation criteria. On another note, Fuchs et al. present research that leverages technology by evaluating the potential of large language models (specifically GPT-3.5) to automate the translation of building regulations into machine-readable LegalRuleML format in a few-shot learning setup. They conclude that, with the increasing sophistication of large language models, automated compliance checking could be significantly supported for more efficient and effective checking of regulatory adherence. Finally, Pandithawatta et al. showcase the role of automation in transforming traditional construction site safety processes. They developed a Job Hazard Analysis Knowledge Graph (JHAKG) approach to automate the Job Hazard Analysis process in construction safety management. The resulting comprehensive knowledge graph, validated through performance metrics and reasoning capability tests, successfully demonstrated the ability to extract implicit information from incident databases and assist safety personnel in executing job hazard analysis effectively.

In summary, this special issue features research that demonstrate how technological innovation, when properly integrated with risk management frameworks and sustainability principles, can drive meaningful improvements in project delivery, safety, and environmental performance. The future research challenge is to seek more innovative approaches that can foster the achievement of the complex balance between these conflicting realities. I thank all authors who submitted papers to EPPM 2023 and the panel of meticulous reviewers for ensuring this publication's high quality and academic integrity.