

Integration of Engineering, Project, and Production Management

Chien-Ho Ko
Editor-in-Chief

Editorial

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Practical industrial problems are becoming increasingly complex, involving more participants, and requiring more efficient and precise solutions, leading to the development of new tools, technologies, and knowledge. Solving current industrial problems requires cross-disciplinary knowledge and approaches (Guinan et al., 1998; Ho and Tang, 2009; Kickul et al., 2011). The aim of the Journal of Engineering, Project, and Production Management (EPPM-Journal) is to advance the cross-disciplinary engineering, project, and production management approach. This unique platform is intended to inspire new thinking by merging and/or combining different approaches from diverse fields.

Engineering management could be regarded as the act of organizing people to efficiently and effectively design structures, machines, devices, systems, materials, and processes that improve peoples' lives using available resources (Brodie, 1962; Woodward, 1985; Morse and Babcock, 2006). Project management is the temporary grouping of people to efficiently and effectively meet unique goals that add value using available resources (Brodie, 1962; Nokes, 2008; Dinsmore and Cooke-Davies, 2005; Carpenter, 1987). Production management is the act of coordinating and controlling the activities of a group required to make a product using available resources, while ensuring that the product can be efficiently and effectively achieved a satisfactory level (Martinich, 1996; Epling, 1988; Ohno and Miller, 2007). These three fields view problems using different forms but solving them from the same managerial perspective. Merging and/or combining techniques from these fields may provide new ways of understanding systems, thus allowing researchers and practitioners to come up with new approaches to problem solving.

This inaugural issue publishes five original research papers encompassing engineering, project, and production management. Liu et al. won the EPPM Conference's 2010 best paper award for their research into designing space for aggregating block assemblies in shipyard production. The second paper, coauthored by Ko et al., proposes an innovative way to improve formwork engineering. Externally Prestressed Segmented (EPS) concrete beams are a major new development in bridge engineering, offering fast and versatile bridge construction (Aparicio et al., 2002; Ariyawardena and Ghali, 2002). Algorafi et al. investigate the structural behavior of combined bending, shear, normal, and torsion stresses in EPS concrete beams for improving bridge engineering design. Tao et al.

conduct a cost-benefit analysis of the high-speed rail link between Hong Kong and mainland China. Ogunsanmi et al. use statistical techniques to analyze risk factors in design and build projects, finding that time overruns and poor quality are major discriminative factors that can be used to manage and mitigate risks for design and build projects.

We hope researchers and practitioners find this inaugural issue to be of interest and practical use. Future issues will endeavor to create additional synergies between engineering, project, and production management.

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