

Information Technology in Engineering and Project Management

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Editorial
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Information Technology (IT) can be regarded as the use of computers to store, analyze, and manipulate data (Daintith, 2009). With the rapid development of personal computers, IT has been widely applied in nearly every field (Davenport, 2013). This issue presents five papers covering engineering and project management, three of which focus on the application of IT to solve engineering and project management issues, while one presents research into public private partnerships, and another into cash flow forecasting.

In “The Impact of PMIS Training: Patterns of Benefit Realization in Project Management Information Systems Training,” McCarty and Skibniewski examine the prevalence, effectiveness, and the per-hour efficiency impact of training in real-world organizations, using regression modeling, and quantitative methods to analyze the collected survey data. Their results offer interesting points on evaluating the impact of software-based training.

Radio Frequency Identification (RFID) technology has been widely applied to identify objects and provide important relevant information (Wamba et al., 2013). In “Evaluating the Readability of Radio Frequency Identification for Construction Materials,” Jung and Jeong experiment examine the ability of an active ultra-high frequency RFID system to track tagged equipment, personnel, and materials across an entire construction site. In addition to the relevant IT issues, the authors highlight the training implications for implementing newly developed technologies in practical contexts.

In “Critical Success Factors for Public Private Partnerships in the UAE Construction Industry- A Comparative Analysis between the UAE and the UK,” Almarri and Abu-Hijleh find that conditions for success are largely similar across national, political and cultural contexts, suggesting that processes and measures successfully applied in the UK could have similar results in the UAE. The findings are validated using the Partnering Performance Index based on five validation interviews.

The fourth paper deals with Cash Flow Forecasting (CFF) in the construction industry. In “Effects of Organisational Characteristics on Contractors’ Construction Cash Flow Forecasting Capabilities,” Abdullahi et al. explore how organizational characteristics influence the CFF process. The key best practices in CFF are first ranked based on arithmetic

mean value. Hierarchical regression analysis is then used to examine the relationships between contractors’ CFF processes and organizational characteristics. The authors claim that organizational characteristics are strongly associated with firms’ abilities to prudently manage cash flows.

Finally, “Accessibility of Radio Frequency Identification Technology in Facilities Maintenance” applies RFID technology to enhance facilities management, assessing the practical impact of environmental dust and moisture, along with proximity to metal surfaces and electrical equipment. The influence of different read/write angle is also examined. Experimental results could be used as guidelines for the design for RFID facilities maintenance systems, particularly for RFID component selection and tag positioning.

References

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