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Title: Automated on-site Productivity Evaluation Using RFID and GPS

Abstract

Manual Productivity Evaluation Methods have been developed for more than twenty years in construction industry. However, they are seldom practiced on construction sites. To timely and accurately track on-site activities, the researcher proposes an automatic on-site productivity evaluation (APE) method. Explored the potential in utilizing advanced technologies such as Radio Frequency Identification (RFID), Global Position System (GPS) and mobile devices, the generic APE system is constructed to deliver timely productivity analysis for both macro and micro level, namely, units completion and productivity rating. The APE is designed to complement manual productivity data collection methods, validate manhours spent and quantities installed of on-going activities and facilitate on-site project management.