Y. JUNG, J. HA, T. JU, S. KANG. **Cost effective sensors for automated progress measurement and management.** *Gerontechnology 2012;11(2):328;* doi:10.4017/gt.2012.11.02.326.00 **Purpose** 'Progress' is the most often used indicator in construction project management. Nevertheless, excessive management efforts to collect and analyze detailed data have been highlighted as a major barrier for advanced progress management techniques for construction projects[1]. Even though the advent of data acquisition technologies (DATs) provides for automated manipulation of these requirements, previous research efforts have mainly focused on a specific DAT or on the limited construction tasks[2]. In order to effectively utilize DATs for construction projects, a comprehensive approach is desirable, possibly including every single work item within the automated system. The purpose of this paper is to propose such a methodology for integrated utilization of DATs for repeated applications to multiple work items. **Method** For the purpose of selecting the most adequate DATs for the most frequent patterns of automated data acquisition methods, we first evaluated a comprehensive evaluation of entire work items for a case-project. The criteria for this selection process are modified and simplified based on the algorithm developed by Kang and Jung[3]. Secondly, DAT candidates for most frequent data acquisition patterns were then systematically examined in order to maximize the benefits of utilizing DATs for construction progress measurement. **Results & Discussion** We found that the most promising area for automated progress measurement and management (APMM) is to deploy 'simplified and low-cost sensors' for monitoring the 'entrance and exit' of 'labors' into a locator of 'floor (story)' level for a building construction. The rationale, techniques, and implications of the proposed methodology are illustrated by a case-project. Recommendations for future research are also discussed.

References

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