AMBIENT INTELLIGENCE AND INTERNET OF THINGS

Convergent Technologies

Edited By
MD RASHID MAHMOOD
ROHIT RAJA
HARPREET KAUR
SANDEEP KUMAR
KAPIL KUMAR NAGWANSHI

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Design of Optimum Construction Site Management Architecture: A Quality Perspective Using Machine Learning Approach

Kundan Meshram

Department of Civil Engineering, School of Studies (Engineering and Technology), Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.), India

Abstract

Management of construction components is vital to the overall cost and quality of any construction site. A loosely monitored site might give moderate construction quality but might be very costly in terms of per-unit rate, while a very tightly monitored site might be able to reduce on the per-unit cost, but it might directly affect the construction quality. Over the years, researchers have proposed many techniques for monitoring and control of construction components; some of them have proven to be very effective, while some others have not yet been standardized. In this empirical review, this chapter analyzes different tools and techniques that can be utilized for improving the cost-to-quality metric at a construction site and suggest ways to improve the same. This work will be helpful to a large group of construction-related agencies like builders, contractors, etc., in order to find and implement the best practices for on-site construction management. This chapter also proposes a novel method via which the overall site quality can be improved and evaluate its performance against other state-of-art methods.

***Keywords*:** Construction, site, management, quality, cost

Email: kundan.transpo@gmail.com

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