

## Radio Frequency Identification (Rfid) Cost-Effective, Location-Based System for Managing Construction Materials

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**Abstract :** Companies need to have logistics and transportation in place that can adapt to the changing nature of construction sites. This ensures they can react quickly when needed. A study was conducted to develop a way to locate and track materials on construction sites. The system is an RFID/GPS integration that's required to pull off this feat. The study also reports how the platform has been used in construction. They found many advantages to using it, including reductions in both time and costs as well as improved management of materials orders. . For example, the time in which a project could start up was shortened from two weeks to three days with just a single digital order. As of now, the technology is still limited in its widespread adoption due largely to overall lack of awareness and difficulty connecting to it. However, as more and more companies embrace it in construction, the technology is expected to become ubiquitous. The developed platform provides contractors and construction managers with real-time information about the status of materials and work, allowing them to better manage the workflow in a project. The study sheds new light on this subject, which is essential to know. This work is becoming increasingly aware of the use of smart tools in constructing buildings.

**Keywords :** materials management, internet of things (IoT), radio frequency identification (RFID), construction site, supply chain management

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