## Development of IoT Based Low-Cost Smart Inventory Management System

## Md. Sadman Sakib, Ahmed Muhiminul Haider, Md. Mehedi Hasan Mojumder, Abid Easanul Alam, Shiful Islam Bappy and Ashiqur Rahman

Department of Industrial and Production Engineering Bangladesh University of Textiles (BUTEX) Tejgaon, Dhaka-1208

sssakib08@gmail.com, amhayan2010@gmail.com, mahdi090999@gmail.com, easanulalamabid@gmail.com, shifulislamzx@gmail.com, 201717037@ipe.butex.edu.bd

## Abstract

Usually, the warehouses store goods or products. If any user wants to locate any good or product from the warehouse, he/she has to search manually in all the available stock rooms, which requires a lot of time and effort. In this way, the efficiency of inventory management and production decreases significantly. This research aims to inform readers about a substitute material handling technique called Smart Inventory Management System (SIMS), which is an intelligent system that can improve the operational efficiency of the inventory process by controlling inventory levels, orders and deliveries using data and software. This smart system is developed with low-cost to promote IoT for everyone and stores the data of the products in the inventory searches the product, shows the location of that desired product in the display and has an alert system that helps to find the desired product in the exact location in the inventory. Thus, it helps minimize cost, time, and complexity and increase inventory efficiency.

## Keywords

Inventory management, material locating, IoT and Industry 4.0