Smart Solution for Small Warehouse Using Ai

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Abstract:

Small warehouses often face challenges like inventory inaccuracies, manual errors, and lack of real-time tracking. Our Smart Inventory Management System tackles these issues through automation and intelligent monitoring. QR/barcode scanning reduces data entry mistakes, while IoT-based ultrasonic sensors ensure real-time stock tracking. An automated cart system updates inventory instantly during item movement. Smart shelving organizes products systematically for faster retrieval and restocking. Expiry-based prioritization ensures near-expiry items are sold first, minimizing waste. A centralized dashboard with Tamil voice guidance offers live analytics and restocking alerts. Daily to yearly reporting supports operational analysis. An interactive chatbot answers common queries, improving staff productivity. Advanced analytics and theft detection enhance security and decision-making.

Keywords:

Smart Inventory Management, Warehouse Automation, Real-Time Tracking, QR/Barcode Scanning, IoT Sensors, Automated Cart System, Expiry Management, Dashboard Analytics, Tamil Voice Assistance, Theft Prevention, Sales Forecasting, Inventory Optimization, Chatbot Support.