

USER ASSISTIVE BAG AND METHOD THEREOF

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

The Technology relates to an RFID-based smart user assistive bag designed to help students efficiently organize and manage their notebooks according to their daily academic timetable. Each notebook is equipped with a unique 13.56 MHz RFID tag, while an RFID reader positioned near the bag opening automatically scans the notebooks placed inside. A microcontroller processes the scanned RFID data and cross-verifies it with a pre-stored timetable database to determine whether the books are required for the specific day and time. The system provides real-time visual information about the scanned books through a display unit and generates audible and visual alerts when a required book is missing, an unnecessary or unauthorized book is detected, or an RFID scanning failure occurs. The bag can synchronize timetable information with an educational institution's server through Wi-Fi or Bluetooth Low Energy. It can also send real-time notifications to parents or guardians, thereby improving student preparedness, reducing unnecessary book carrying, and supporting better organization of school materials.

Technical Applications

This smart bag automates K-12 packing to reduce back strain, syncs dynamic timetable changes, and sends instant mobile alerts to parents for missing books, giving institutions cloud-connected asset tracking and packing compliance.

Salient Features

- ✓ Automated RFID Book Identification
- ✓ Dynamic Timetable Synchronization
- ✓ Remote Parental Alerting

Glimpse of the Technology



REFERENCE NUMBER

iTNT-TECH-0173



TECHNOLOGY SECTOR

Electronics & Semiconductors



IP STATUS

Patent Granted



APPLICATION NUMBER

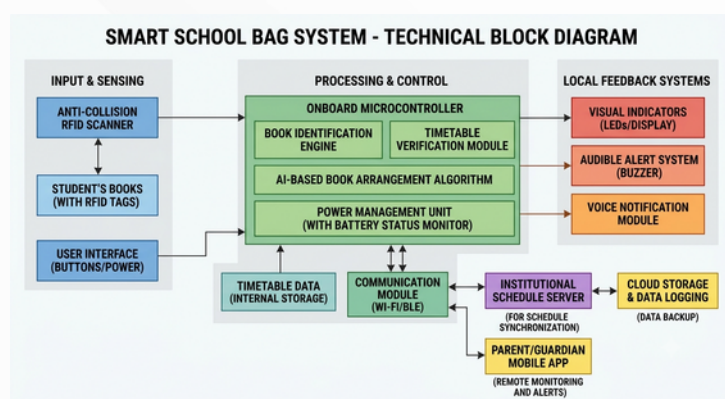
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TECHNOLOGY READINESS LEVEL

TRL - 4

Block Diagram



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