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(57) Abstract :
The present invention relates to a smart locker system within the field of Electronic Information Technology. The system comprises a locker housing equipped with a pressure sensor positioned at the base to detect the occupancy status by measuring the weight of items placed inside. An LED indicator on the front of the locker provides a visual indication of whether the locker is vacant (green) or occupied (red), based on the weight detected. The locking mechanism of the locker is controlled by a QR code, which can be scanned and managed via a user-centric mobile application. This application allows users to create and log into accounts, scan QR codes for locker access, and verify user credentials and locker status through a backend algorithm. The locking mechanism is enabled or disabled accordingly. Users receive notifications on their mobile application if the item's weight exceeds a predetermined safety threshold or if the locker remains occupied beyond a specified time limit. The web application interface allows users to manage locker access permissions by sharing the QR code with selectees. This smart locker system ensures secure storage and efficient management of access through an integrated pressure sensor and QR code technology, providing enhanced safety and user convenience.

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