

IoT-Based Smart Keychain

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Abstract: *The IoT-based Smart Keychain using Raspberry Pi is an innovative device designed to enhance the security and convenience of managing keys and other valuable items. This smart keychain integrates the power of the Internet of Things (IoT) and the versatility of a Raspberry Pi, creating a comprehensive solution for key and item tracking.*

Key features of this smart keychain include a compact design, wireless connectivity, and a user-friendly mobile application. Each key or item attached to the keychain is equipped with a unique RFID or Bluetooth Low Energy (BLE) tag. The Raspberry Pi serves as the central hub, wirelessly communicating with these tags to monitor their location and status.

The mobile application allows users to track and manage their keys and belongings with ease. It provides real-time location information, alerts for misplaced items, and a history log to track usage patterns. Users can customize notifications, such as proximity alerts and reminders for forgotten keys.

1) Additionally, the system incorporates a secure cloud database to store tracking data and supports data encryption for data privacy. The IoT architecture enables remote monitoring and control, even when users are away from their keychain. This keychain can be particularly useful for homeowners, businesses, and individuals seeking an efficient and reliable way to keep track of their keys and important items.

In conclusion, the IoT-based Smart Keychain using Raspberry Pi is a cost-effective, IoT-enabled solution that simplifies key and item management while enhancing security and convenience.

Keywords: Device finder, GPS tracker, SPO2 sensor, buzzer, web application

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