Sistem Absensi Berbasis Iot Menggunakan Rfid Dan Esp 32 Cam Di Majelis

Rowid 113 (IoT-Based Attendance System Using RFID and Esp 32 Cam at Majelis Rowid 113)

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ABSTRACT

Manual attendance systems in educational institutions are prone to data manipulation and inefficiency. This research aims to develop an IoT-based automatic attendance system using Radio Frequency Identification (RFID) and ESP32 Cam technology with the Rapid Application Development (RAD) method at Majelis ROWID 113. The system is designed to improve the accuracy of attendance recording and reduce potential tardiness. Each student uses an RFID card for identification, while the ESP32 Cam captures facial images for verification. Attendance data is processed by a NodeMCU ESP8266 microcontroller, stored on a server, and attendance notifications, including photos, are sent to parents/guardians via Telegram. The development results indicate that the system can automatically record attendance, perform visual verification, and send notifications effectively. This system successfully enhances the efficiency of the attendance process and provides transparency of student attendance information to the school and parents.

Key words: Attendance System, IoT, RFID, ESP32 Cam, RAD, Telegram Notification