

Student Attendance System Using QR Code

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Abstract: In traditional educational systems, student attendance is often recorded manually using pen and paper, which is time-consuming, prone to errors, and difficult to manage. This project introduces a Student Attendance System using QR Code to automate and streamline the attendance process. The proposed system consists of a web-based module for professors to generate dynamic QR codes and a mobile application for students to scan the code. To prevent proxy attendance, the system utilizes encryption (AES) within the QR code and integrates device-specific validation (Device ID/IMEI) along with Geo-fencing. The data is stored in a centralized database, allowing for real-time reporting and analytics. This solution significantly reduces the time spent on roll calls, minimizes paper waste, and eliminates the possibility of fraudulent attendance, thereby enhancing overall academic administration.

Keywords: QR code