

Smart ID Card with Parental Monitoring System

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Abstract: *This project presents the design and development of a Smart Student ID Card with 4G alert, GPS tracking, and parental monitoring system. The system is developed using an ESP32 microcontroller integrated with a camera module, SIM A7672S 4G GSM module, and L86-M33 GPS module. Parents can monitor their child through camera access and track real-time location using GPS, even beyond college hours. When a parent sends a request message to the ID card, the system retrieves the current location and sends it to the registered mobile number through the GSM network. An emergency alert button is also provided, which forwards a call to the parent in case of danger. The proposed system is compact, reliable, and designed to enhance student safety through real-time communication and monitoring.*

Keywords: Smart Student ID Card, ESP32, 4G GSM Module, GPS Tracking, Parental Monitoring, Emergency Alert System

