RFID AND GSM BASED ATTENDANCE SYSTEM

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Abstract –

We have developed a quick and simple solution to the challenge of tracking every student's presence in a class by using radio frequency identification (RFID) to control student attendance with little to no teacher intervention. This project is to use radio frequency identification (RFID) technology to streamline the attendance recording system. A web-based application called RFID based Attendance recorder with SMS alert system will be created to address the aforementioned issue. Database support and GSM (Global System for Mobile communication) technologies will be used in the development of the system. As a result, in addition to tracking students' attendance, the system notifies the students' parents by SMS when they are present or not.

*Key Words***:** Monitoring, Tracking, attendance, RFID

1.INTRODUCTION

The majority of administrators in educational institutions are concerned about students' inconsistent attendance. An absentee student's entire academic record may suffer. In addition to being ineffective, the traditional approach of recording attendance by calling names or signing paperwork takes a long time and is unsafe. In this specific example, we demonstrate how to combine a time management system with an advance attendance system. For the attendance system in this project, we employ a single hardware circuit that includes an RF reader interface and an RF passive card. The reader receives the RF card data whenever we display a card to the hardware system. The ARDUINO IDE software can be used to link the system to a computer. Once connected, it processes data that we code and compares it to an Access database.
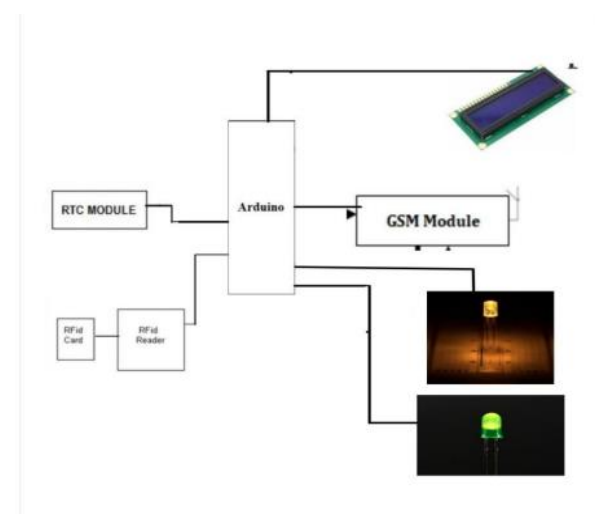.

2. Body of Paper
Section 1: Block Diagram

Fig 2.2.1

Section 2: Methodology
When we use the GSM to supply the adapter with power. Next, we will use an RFID reader to scan our RIFD tag. uses the RTC and GSM to determine the current time. obtain and forward to our parent message This system uses radio frequency identification, or RFID, to identify us. When we scan our RFID card, if the yellow light glows, it indicates that we are currently enrolled in college. When the green light glows, it indicates that we have left the institution. This message is conveyed to our parents. The pupils' roll numbers are pre-programmed into the smart card that we use here. The C++ programming language is a source code.

Section 3: Future Scope
The RFID reader's range can be extended to enable detection from a considerable distance. Software can be used to save and save the converted data on a computer as a database. The attendance data can be connected to the college website and shared with, as well as observed by, the parents of the students.

Section 3: Advantages
1.   Increased   security   and   safety.
2. There is more identification offered by the system.
3. Identifies candidates quickly and efficiently in second
4. The system is easier to use and less time-consuming.

3. CONCLUSIONS

It is observed that, the manual method may be replaced with this RFID attendance system, and information transformation can be completed without any problems. This technology provides dependable control and time savings. This approach is incredibly user-friendly and practical for college and university levels.

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