**BATCH ID:** 6A

**PROJECT TITLE**:

ATTENDANCE MANAGEMENT SYSTEM USING RFID TECHNOLOGY

**PROJECT TEAM MEMBERS:**

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**PROJECT DOMAIN:** MACHINE LEARNING AND IMAGE PROCESSING

**ABSTRACT:**

The conventional method of taking attendance by calling names

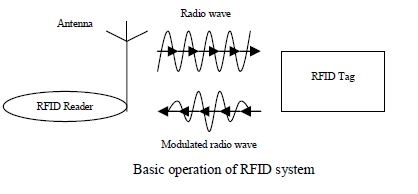
or signing on paper is very time consuming and insecure, hence inefficient. Radio Frequency Identification (RFID) based attendance system is one of the solutions to address this problem. Its ability to uniquely identify each person based on their RFID tag type of ID card make the process of taking the attendance easier, faster and secure as compared to conventional method**.** With real time clock capability of the system, attendance taken will be more accurate since the time for

the attendance taken will be recorded. The system can be connected to the computer through RS232 or Universal Serial Bus (USB) port and store the attendance taken inside database**.** We use a biometric system to confirm the attendance to make it more secured and efficient.

**DESCRIPTION:**

Radio frequency identification (RFID) refers to the use of radio frequency wave to identify and track the tag implanted into an object or a living thing. It is a wireless mean of communication that use electromagnetic and electrostatic coupling in radio frequency portion of the spectrum to communicate between reader and tag through a variety of modulation and encoding scheme. Modulation refers to the variation in the amplitude, frequency or phase of a high frequency carrier signal to convey information. Encoding is a process of converting information from one format to another. RFID system usually consists of RFID reader and tag. It is very useful because it can uniquely identify a person or a product based on the tag incorporated. It can be done quickly and this usually takes less than a second. The RFID reader used in the system is passive.It operates at frequency of 125 kHz and 12V power supply. The system has ability to uniquely identify and take attendance for persons. Attendance will be taken if the encoded tag ID scanned matches the tag ID stored in the memory. Otherwise, an error message will be displayed. Attendance taken will be more accurate with the real time clock included in the system. RS232 and Universal Serial Bus (USB) port allow the system to display the information and attendance of a particular person on Personal Computer (PC).Also a biometric system allows us to confirm a person’s attendance and overcome any unsecured access.

**ARCHITECTURE DIAGRAM**:



**OUTCOME:**

A system that efficiently takes the attendance of a person or presence of particular thing using the RFID technology.

**KEYWORDS:**

Microcontroller; RFID Reader; RFID Tag; Universal Serial Bus**.**

**Project Guide**

(T.Anitha)