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## **RFID BASED ATTENDANCE SYSTEM USING TEMPRATURE AND SANITIZER**

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### **ABSTRACT**

The application of biometric recognition in personal authentication enables the growth of this technology to be employed in various domains. The implementation of biometric recognition systems can be based on physical or behavioral characteristics, such as the iris, voice, fingerprint, and face. Currently, the attendance tracking system based on biometric recognition for education sectors is still underutilized, thus providing a good opportunity to carry out interesting research in this area.

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### **1. INTRODUCTION**

In this project, we have designed RFID Based Attendance System using Arduino. EM-18 RFID Reader is a very simple yet effective module. It is an RFID module and is used for scanning RFID cards.

It's a new technology and is expanding day by day. Nowadays it is extensively used in offices where employees are issued an RFID card and their attendance is marked when they touch their card to the RFID reader. We have seen it in many movies that when someone places one's card over some machine then the door opens or closes. In short, its a new emerging technology which is quite useful.

In this project, we have interfaced RFID EM-18 Module with Arduino, RTC Module DS3231, and 20\*4 LCD display. RFID Based Attendance System is a wonderful project for final year electronics & electrical students

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### **2. OBJECTIVE**

Due to the spread of the novel corona virus across the globe, a set of rules called as the standard operating procedure is made mandatory by the government of India, which includes thermal scanning and hand sanitizing at the entry of public places, shared work place, shopping malls, institutions etc., in order to control the spread of the infection. Due to the spread of the novel coronavirus across the globe, a set of rules called as the standard operating procedure is made mandatory by the government of India, which includes thermal scanning and hand sanitizing at the entry of public places, shared work place, shopping malls, institutions and pumps sanitizer with the help of a DC motor.

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### **3. CONCEPT**

In this project, we have designed RFID Based Attendance System using Arduino. EM-18 RFID Reader is a very simple yet effective module. It is an RFID module and is used for scanning RFID cards. It's a new technology and is expanding day by day. Nowadays it is extensively used in offices where employees are issued an RFID card and their attendance is marked when they touch their card to the RFID reader. We have seen it in many movies that when someone places one's card over some machine then the door opens or closes. In short, its a new emerging technology which is quite useful

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### **4. BLOCK DIAGRAM**

EM-18 RFID Reader is a very simple yet effective module. It is an RFID module and is used for scanning RFID cards. It's a new technology and is expanding day by day. Nowadays it is extensively used in offices where employees are issued an RFID card and their attendance is marked when they touch their card to the RFID reader.

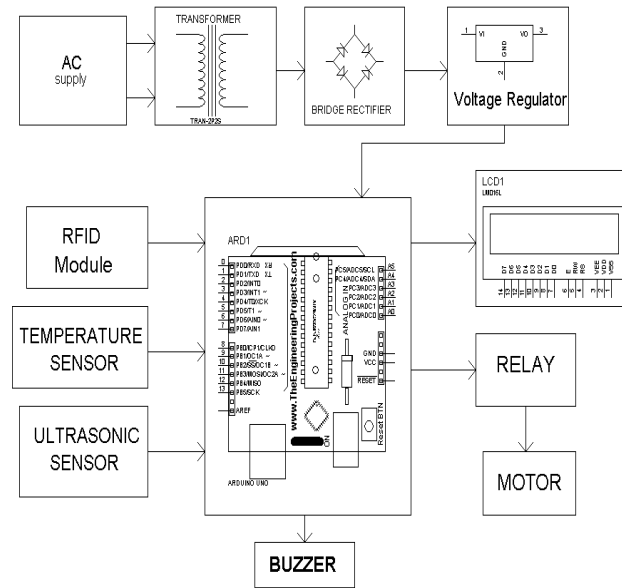


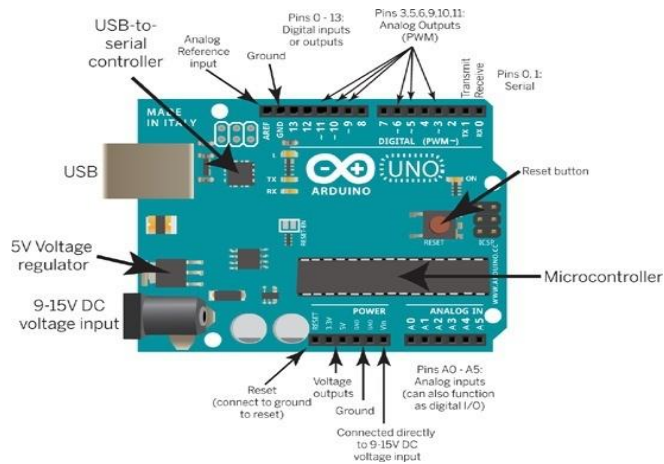
Fig1:-Block Diagram

## 5. COMPONENT

### 1. ARDUINO:

The Arduino microcontroller is an easy to use yet powerful single board computer that has gained considerable traction in the hobby and professional market.

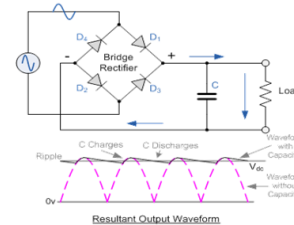
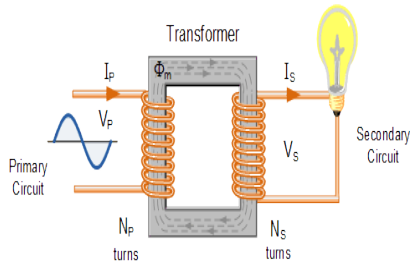
The Arduino is open-source, which means hardware is reasonably priced and development software is free.



**2. POWER SUPPLY:**

5V dc power supply is used for the system

1. Step down transformer
2. Bridge rectify



7812 and 7805 REGULATOR IC Used to get constant 12 dc voltage and 7805 is used to get constant 5v DC.

### LM7812 IC Pinout

TO - 220 Package

**LM7812**  
Voltage Regulator IC

Positive Voltage Input  
Pin1 Input

Positive Voltage Output  
Pin3 Output

Pin2 Ground

Symbol In Diagram

**LM7812**

+IN Pin1    +OUT Pin3  
Ground Pin2

Application Circuit

+35V To 14V IN    +12V OUT

330nF    100nF

**LM7812**

[www.componentsinfo.com](http://www.componentsinfo.com)  
Electronics Components Uses, Features, Pinouts, Equivalents, Applications & More...

**LM7805**

1 Input    2 Ground    3 Output

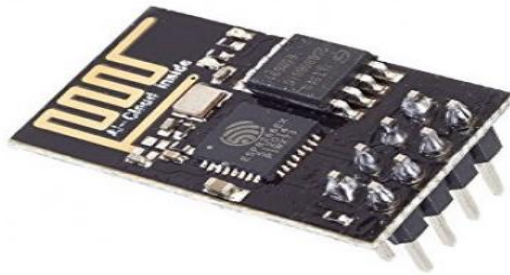
**3. LIQUID CRYSTAL DISPLAY (LCD):**

Most common LCDs connected to the microcontrollers are 16x2 and 20x2 displays. This means 16 characters per line by 2 lines and 20 characters per line by 2 lines, respectively. The standard is referred to as HD44780U, which refers to the controller chip which receives data from an external source (and communicates directly with the LCD).



**4. ESP 8266:**

This module has a powerful enough on-board processing and storage capability that allows it to be integrated with the sensors and other application specific devices through its GPIOs with minimal development up-front and minimal loading during runtime.



#### **ADVANTAGE:**

1. Easy to take attendance
2. Low maintenance cost
3. No need to worker to check the temperature and sanitization

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## **6. CONCLUSION AND FUTURESCOPE**

Other control procedures should be designed and developed to compare between the control methods.

Experimental setup to compare with the simulation results.

Integration of communication interface with the system.

We are conclude than our project is useful for the Scholl college as well as company for the attendance with the total safety of human being.

#### **ACKNOWLEDGMENT**

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