

## International Journal of Engineering Research in Computer Science and Engineering (IJERCSE) Vol 4, Issue 2, February 2017 Automated Attendance and Messaging System using Internet

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*Abstract:* - Nowadays attendance in colleges is generally paper-based which may sometimes result in proxy. Automated time and attendance marking system can help schools and higher education in many ways. There is no doubt that an attendance management system will help to save time and money by eliminating a lot of manual processes involved in attendance. With automatic class attendance system, teachers can more accurately and quickly track student's time in the classroom. To overcome this problem we have implemented this system. In this system RFID and counter play very important role. RFID is becoming one of the latest and cost-effective technologies today. In this paper, we have automized & computerized system with data reliability. This system provides all types of information regarding students, batch information. It provides all the information of a student starting from the first day to the end of his/her course so that it can be used later for all reporting purpose, attendance tracking and hence can be used for future reference. The main advantage of this system is to eliminate proxy attendance and thus to monitor regularity and assess the students. Thus this is helpful to maintain the overall discipline in the Institute.

Index Terms- RFID (radio frequency identification) tag, sensor module, Microcontroller.

#### I. INTRODUCTION

Nowadays attendance system is one of the most important things to ensure students attend their particular lectures. Some universities regulate class attendance as compulsory to each student who registered for a particular course. According to university rule, It is mandatory that student's must attained 75% total course of hours. otherwise student will be barred from attending any examinations. Currently, the practice of marking attendance in class is done through paper work method where the instructor or lecturer circulates the attendance sheet to the students which leads excess time consumption . Thus, the current practice can be further improved using RFID technology in which attendance can be collected without human intervention during lecture session. The proposed system aims to simplify the process of collecting class attendance where by the RFID reader automatically scans the tags and verifies the scanned data in databases. main while the prevision is added such that they count of number of unique ID scanned must equivalent the counter counting of the student existing out of the class. The main advantage of this proposed system is to eliminate proxy attendance, collected information is stored in server and message is send to parent's through internet.

#### **II. PROPOSED MODEL:**

In this proposed model, RFID is placed to tag the card by the student. Each student is having its unique ID to get the access. This unique ID number will be sent to the microcontroller. After accessing unique id student will passing in between two IR sensors ,then the message will be send to the microcontroller and display this unique id as well as given to the main server, by using serial communication. Main work of the server is to fill up the data in software, the software is used to compare receiving id number and database store the data and compare then only the data will store in the server. The proxy attendance is detected. After this process the absent student parents automatic get the message.

#### **III. BLOCK DIAGRAM:**



Fig: Block diagram automated attendance and messaging system using internet



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Sr.No	Existing model	Proposed model
1	Proxy not detected.	Proxy detected.
2	Attendance is not	Maintain the
	maintain on the	attendance on the
	server.	server.
3	Message is not send	The message will
	automatically	send to the parent's
		automatically
4		

## IV. COMPARATIVE STUDY OF EXISTING AND PROPOSED SYSTEM.

Tbl no1.Comparative study of existing and proposed system

## V. SPECIFICATIONS:

## 5.1IR Sensor:

#### Principle:

An infrared sensor is an electronic instrument which is used to sense certain characteristics of its surroundings by either emitting and/or detecting infrared radiation.

#### Specifications:

Output power: +4 dBm typ Single power supply: 1.8 V to 3.6 V

#### Rfid module:-

Rfid is short for Radio Frequency Identification In every RFID system the transponder Tags contain information. This information can be as little as a single binary bit, or be a large array of bits representing such things as an identity code, personal medical information, or literally any type of information that can be stored in digital binary format.





# Fig : A line graph showing the comparison of total time taken to record the attendance of students

As shown fig, compared with the time consumption in data entry for different technologies, RFID technology saves considerable amount of time and greatly improves the operation efficiency. Also with the adoption of this technology the process and product quality can be improved due to reduction in entry errors by manual human operations. Therefore, low cost is reduced to perform the value added functions.



#### fig. Working Of RFID

Fig Shown is a RFID transceiver that communicates with a passive Tag. Passive tags have no power source of their own and instead derive power from incident electromagnetic field. Commonly the heart of each tag is a microchip. When the Tag enters the generated RF field it is able to draw enough power from the field to access its internal memory and transmit its stored information. When the transponder Tag draws power in this way the resultant interaction of the RF fields causes the voltage at the transceiver antenna to drop in value. This effect is utilized by the Tag to communicate its information to the reader. The Tag is able to control the amount of power drawn from



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the field and by doing so it can modulate the voltage sensed at the Transceiver according to the bit pattern it wishes to transmit. Tags are operable on Microwave (2.4 – 2.5 GHz), Ultra High Frequency (UHF) (860 – 1500 MHz), High Frequency.

#### VII. CONCLUSION:

The design and implementation of RFID based automatic attendance and messaging system which is the aim and objective of this paper was successfully implemented. This system Provides an effective and more convenient method of taking attendance when compared to the manual system. The main advantage of this proposed system is to eliminate proxy attendance, collected information is stored in server and message is send to parent's through internet.

### **VIII. FUTURE SCOPE**

this proposed model can be extended using face recognitions

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