Information Alerting System For Students

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Abstract: *Student alerting Systems store and track all student information, including grades, attendance records and results. Student alerting Systems has become a more useful for educational institutions as well as parents and students, who use it to gain access to student information, make payments, and communicate with college functionaries. Student alerting Systems are used by teachers, students, and parents to access all relevant information pertaining to a student's schooling. Student alerting Systems is leveraged for a few different functions; the main two being as a channel of communication and as a place to store student information.*
Keywords: *Student alerting Systems*

I.   Introduction

It's easy to recognize that great communication is at the heart of any great college. What's not so easy to grasp these days is identifying which communication channels to focus on, and when to use them to reach your audiences. Although there is more technology than ever for connecting with parents, staff, students and the rest of your college community, there are questions and costs that come with learning how to make the most of using it. Improving your college communications while being realistic about your resources might be the greatest challenge facing you and just about every other school communicator. By the time you factor in the tools, training, time, staffing and tech support, staying current with all these channels can be challenging if not cost prohibitive. Nevertheless, in your college communications planning you need to focus on using and embracing technology and using all the channels at your disposal. In this paper proposed the alerting system for student to improving the communication between the college and parents.

II.   Related Work

Dhivya.A et. al. [1] paper is intended to be designed using structured modeling to provide the desired results. Different technologies have different methodologies to implement the monitoring of school bus, more precisely safety of children in school bus. The proposed system is intended to play an important role in real time monitoring and also intended to provide safety and secure solution to the students and parents. An SMS alert is sent to the parents whenever their child boards the school bus and also when the child is dropped from school at the dropping point using GPS module. An alert message is sent to the school authority as well to parents.

Hasanein D. Rjeib et. al. [2] proposed system aims to manage student's attendance recording and provides the capabilities of tracking student absentee as well, supporting information services include students grading marks, daily timetable, lectures time and classroom numbers, and other student- related instructions provided by faculty department staff. Based on the results, the proposed attendance and information system is time-effective and it reduces the documentation efforts as well as, it does not have any power consumption. Besides, students attendance RFID based systems that have been proposed are also analyzed and criticized respect to systems functionalities and main findings.

Raj Kiran T et. al. [3] describes an information management system of students, which uses barcode technology. It shows the potential applications of using digital barcodes to carry useful information, how the system can be helpful in providing information to the users. The developed Web-Based Student Enquiry System using Barcode and GPRS/GSM technology will significantly improve the current manual process of student attendance, results enquiry and tracking system of a university or school environment. The system promotes a semi-automated approach in enquiry of any information related to his academics, i.e. by having the students to flash their college Identity cards to the Barcode reader. Then he can view the data of his desire on the LCD display. In addition, a number of other advantages are gained by having an online web-based system, acting as a central repository of student database record.

S. Prabakaran et. al. [4] tries to make sure absolute best safety of children exploitation sensible options that square measure additions in existing chase system for higher security. The planned system consists of school bus unit, faculty unit and humanoid application. The School-Bus Unit will note the presence of kid in bus

exploitation RFID.GPS module attached to the current unit can track location and bus speed perpetually. Alcohol sensing element and meddling switch during this unit give secured transport to kid. Cloud property and live video streaming facility is provided by Raspberry pi unit that act as slave controller to AVR in bus unit. The varsity Unit identifies the kid at school exploitation RFID scan and update child location on server exploitation WLAN module.

III. Proposed System

As a part of college automation, we have decided to do a paper "Information Alerting System For Students". Our paper allows the user to know the student's attendance and marks quickly through the telephone line without the intention of the college authority.

Someone calls your number and is greeted by a recorded voice message, for example: "Welcome to the election monitoring action line". The caller is then presented with a range of options: to register as an election monitor, press 1; to make a positive comment on the election, press 2; to report a violation, press 3; to hear a news update on how the elections are going, press 4; to repeat these options, press 5 and so on.

The mobile user will be able to access the information from anywhere at any time simply just by dialing a toll free number which would be stored and following an automated instruction when a call has been established.
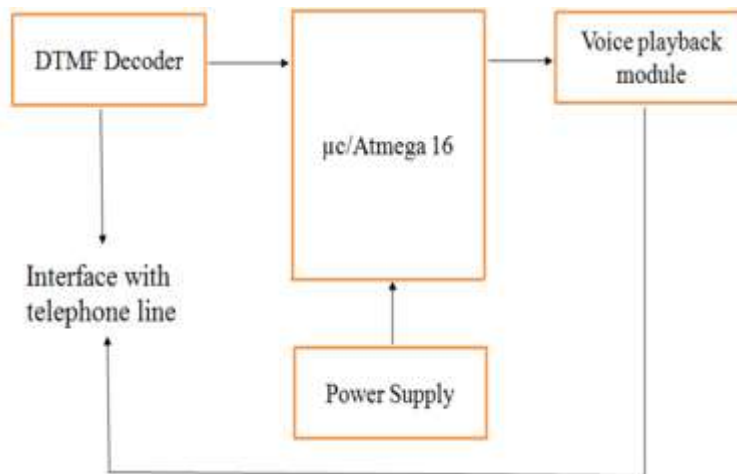

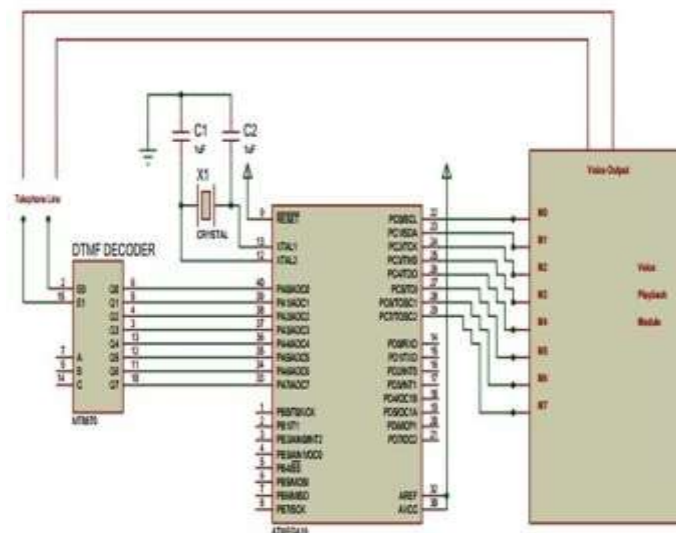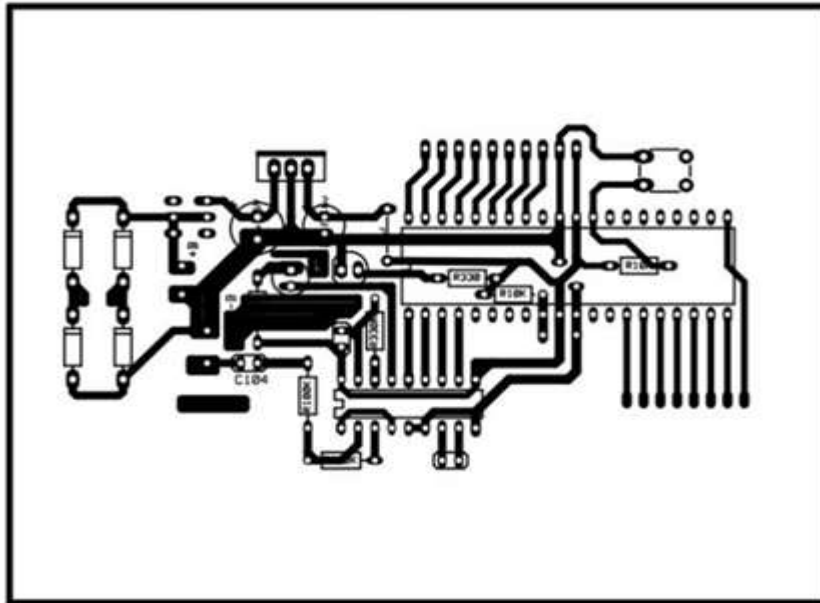**Figure 1:** Block diagram of Proposed system

Figure 2: Circuit Diagram

Figure 3: PCB Layout of Proposed system

IV. Main Components Used In Proposed System

1. Atmega 16 μc
2. DTMF Decoder
3. Voice Playback Module
4. Transformer

1. Atmega 16

ATmega16 is an 8-bit high performance microcontroller from the Atmel's Mega AVR family. Atmega16 is a 40 pin microcontroller based on enhanced RISC (Reduced Instruction Set Computing) architecture with 131 powerful instructions. It has a 16 KB programmable flash memory, static RAM of 1 KB and EEPROM of 512 Bytes. The endurance cycle of flash memory and EEPROM is 10,000 and 100,000, respectively. Most of the instructions execute in one machine cycle. It can
work on a maximum frequency of 16MHz. ATmega16 pin diagram should clarify things a bit. (Use for Input and Output processing like computer)

2. DTMF Decoder
The MT8870D/MT8870D-1 is a complete DTMF receiver integrating both the band split filter and digital decoder functions. The filter section uses switched capacitor techniques for high and low group filters; the decoder uses digital counting techniques to detect and decode all 16 DTMF tone-pairs into a 4-bit code. (Use For decoding user information)

3. Voice Playback Module
Recordable sound modules may use any number of technologies to produce their sounds, and they are the small devices that you can store and play the sound that was recorded before. It can be divided into many kinds such as recording by button, downloading the voice from computer through USB, or Pre-recorded by the manufacturer with the audio files customers provided. (Use for output Voice Generate)

4. Transformer
A transformer is a static device which transfers electrical energy from one circuit to another through the process of electromagnetic induction. It is most commonly used to increase ('step up') or decrease ('step down') voltage levels between circuits. (Use Electrical Power)

V. Flowchart Of Proposed System
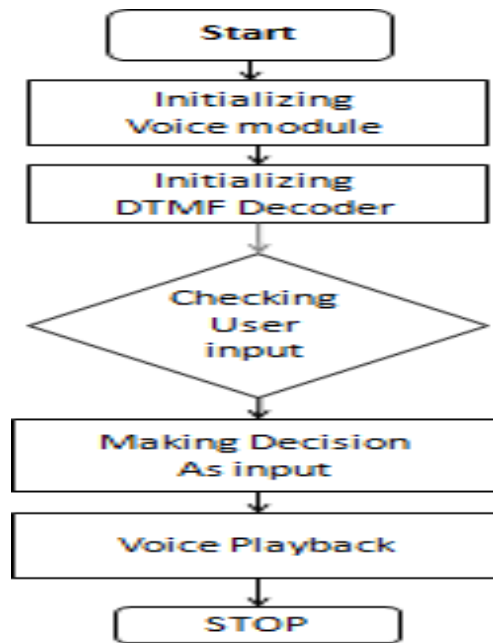
VI. System Experimentation And Practical Implementation

The discussed system is implemented on small size PCB and proper mechanical modeling is under process for systematic representation of model. Basics implemented system is as shown in figure 5 below.
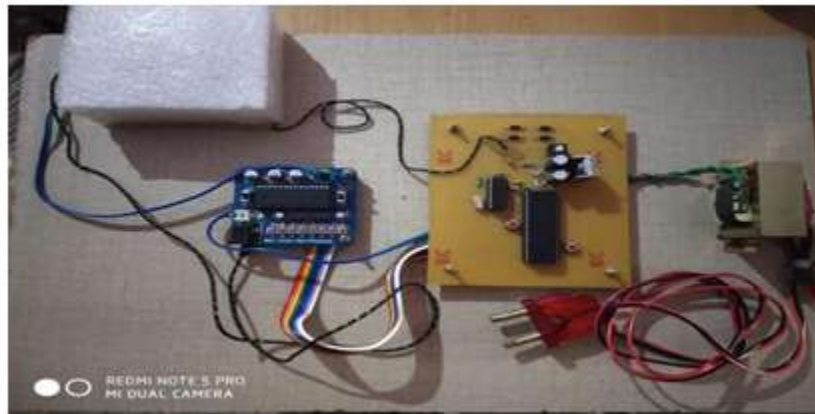
Figure 5: Experimental setup of proposed system

VII. Conclusion

The paper is intended to be designed using structured modeling to provide the desired results. Different technologies have different methodologies to implement the alerting system for colleges. The proposed system is intended to play an important role in real time alerting system and also intended to provide communication between the parents and college.

References

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