Android Phone Speech Recognition Sensed Notice Board Display
Anjali Deshmukh¹, Pooja Sinha², K.NirjaFinal³, Sitaram Kaushal¹, Sayyed Ashad Ali Hashmi⁵, Swati Chandrakar⁶
Student¹,2,3,4,5, Assistant Professor⁶
YITM Rajnandgaon, India

Abstract:
Notice board has become an important thing in institutes/organization or public places like railway stations, bus stands and hospitals, parks. But sticking various notices day-to-day is a difficult process. Use the paper notices stacked on a notice board is a time taking and expensive process and there is wastage lot of time. The Notice board is a common display for effective mode of providing information to the people, but to update the messages instantly is not easy on the notice board. This project deals about an advanced Hi-Tech wireless Notice Board. This system is enhanced to display the latest information through an Android application of smart phones.

I. INTRODUCTION
Main concept behind Voice operated Electronic notice board using display is to show messages and to control them by using our own voice. We have already seen GSM primarily based Electronic board, but speech controlled board has extra advantage of simple use. While the user sends the message from the Android application device, it is received and retrieved by the Bluetooth device at the display unit. Voice recognition is finished within the automaton application. User needs to install this automaton application. Bluetooth wireless technology is becoming a popular standard in the communication arena, and it is one of the fastest growing fields in the wireless technologies. Bluetooth technology handles the wireless part of the communication channel; it is used in this project to transmit and receive data wirelessly between devices. While a phone is simply more than a phone these days, it is a smartphone the number of applications being built on a wide range of platforms for smart phone is astounding. Speech synthesis is the artificial production of human speech. A computer system used for this purpose is called a speech synthesizer, and can be implemented in software or hardware products. A text-to-speech (TTS) system converts normal language text into speech.

BLOCK DIAGRAM

CURRENT MODELS OF NOTICE BOARDS
Currently we rely on putting up notices on the notice boards using papers. This is time consuming and also there is wastage of paper. If we need to renew the notice then we have to take a new hard copy. A separate person is required to take care of this notice display. Now a days GSM modem based notice boards are also in use but they require router in which cable connections are done which make it complex.

II. PROPOSED WORK
In view of the above it will be apparent that, there exists a need of electronic notice board that enables efficient way to the user for displaying notice. By considering increasing compactness of electronic systems, there is a need of embedding two or more systems together. This project is an implementation of the idea of wireless communication between a mobile phone and an AVR controller. In this project work, we are supposed to design an embedded system which consists of display unit, printer and audio device using wireless technology. The display unit consists of any type of display that can be interfaced with microcontroller. Wireless printer is used for printing application. Audio device is speaker which is controlled by microcontroller through Text-To-Speech (TTS) convertor. GSM technology is specially used for SMS applications.
Bluetooth is an open wireless protocol for exchanging data over short distances from fixed and mobile devices, creating Personal Area Networks (PANs). It was originally conceived as a wireless alternative to RS232 data cables. It can connect several devices, overcoming problems of synchronization. Bluetooth will receive the signal sent by the Android application device (mobile phone), and then send this signal to the microcontroller. In order to implement this project, we need to create an Android application that is capable of performing the following:

**Functions:**
- Convert voice data to text
- Send this text over to microcontroller via Bluetooth for displaying on notice board
- Play the message from the audio device
- Send the message as SMS to anybody

**BLUETOOTH MODULE**
A BlueTooth module is usually a hardware component that provides a wireless product to work with the computer; or in some cases, the Bluetooth may be an accessory or peripheral, or a wireless headphone, or other product (such as cellphones can use.) If the computer (is this computer related?) has hardware support to.

**VOLTAGE REGULATOR**
Voltage regulator ICs are available with fixed (typically 5, 12 and 15V) or variable output voltages. The maximum current they can pass also rates them. Negative voltage regulators are available, mainly for use in dual supplies. Most regulators include some automatic protection from excessive current (over load protection) and overheating (thermal protection). Many of fixed voltage regulator ICs has 3 leads. They include a hole for attaching a heat sink if necessary.

**MICROCONTROLLER**
The AT89S52 is a low-power, high-performance CMOS 8-bit microcontroller with 8K bytes of in-system programmable Flash memory. The device is manufactured using Atmel's high-density non volatile memory technology and is compatible with the industry standard 80C51 instruction set and pin out. The on-chip Flash allows the program memory to be reprogrammed in-system or by a conventional non-volatile memory programmer.
III. CONCLUSION

By introducing the concept of wireless technology in the Field of the communication we can make our communication more efficient and faster, with greater efficiency. We can display the messages with less errors and maintenance. This system can be used in college, school, offices, railway station and commercial as well as personal used. The above technical paper explains how we can develop as well as modify voice control Android based wireless notice board.

IV. FUTURE ENHANCEMENT

A commercial model can be able to display one message at a time. In our system we are sending the messages via GSM Network through android applications and displaying on a LED by utilizing AT commands. The same principle can be applied to control the electrical appliances at a distant location. The project can be further enhance to control different electrical appliances. The message can be secured for the fixed number.

V. REFERENCES


