Android Phone Speech Recognition Sensed Notice Board Display

Sanjeev Singh, Sharad Yadav, Narendra Singh Pal, Rajat Agarwal, Shubham Bansal
Department of E&C Engineering, MIT, Moradabad, India

E-mail: ss8881025@gmail.com

Abstract

Today notice board has become an important thing in institutes/organization or public places like railway stations, bus stands and hospitals. But to use the paper notices stacked on a notice board is a time taking and expensive process and there is wastage lot of time, paper and labour. The notice board is used to display the information in an effective way 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 or tablet.

Keywords: Notice board, android, information, messages, smart phones

INTRODUCTION

Main idea behind voice operated electronic board victimisation show is to point out messages and to regulate them by victimisation our own voice. We have already seen GSM primarily based Electronic board, but speech controlled board has extra advantage of simple use. User needs to formulate command in his/her own voice to regulate the messages displayed on electronic board. Voice recognition is finished within the automaton application. User needs to install this automaton application.

Bluetooth wireless technology may be an in style technique within the communication arena, and it is one in all the quickest growing fields within the wireless technologies. Bluetooth technology handles the wireless a part of the communication channel; it is utilized in this project to transmit and receive knowledge wirelessly between devices. Whereas, a phone is just quite a phone recently, it is good phone the quantity of applications being engineered on a good varies 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.

LITERATURE REVIEW

R. G. Gupta *et al.* in his paper basically focused on designing an electronic notice board for different sectors like schools [1]. The notice can be send wirelessly within a

second. This creative technique can be used to display latest information. The contents of notice can be changed anytime. The concept is to design a SMS based automatic display board which can replaced the current used programmable electronic display. It is proposed to design a display board which should be programmed from an authorized mobile phone. The message to be displayed is sent through a SMS from a transmitter. The microcontroller receives the SMS, validates the sending Mobile Identification Number and displays the desired information. The electronics displays which are currently used are programmable display. This makes it inefficient for immediate information transfer, and thus the display board loses its importance. The display board programs itself with the help of the incoming SMS. The main components of the kit include microcontroller, GSM modem. The GSM modem receives the SMS. The commands are serially transferred to the modem through receiver and transmitter connection, then the modem transmits the stored message through the COM-port. The ARM7 microcontroller validates the SMS and then displays the message in the LED display board. GSM 900 module is used as the GSM modem. The main focus of the thesis is on displaying information to a dedicated LED by using GSM network, which facilitate to control any message board globally from any location.

Ramchandra K. Gurav *et al.* in this paper it is focused on GSM (Global System for Mobile) technology to design a digital notice board, "Wireless Notice Board using GSM System" is wireless module which send message wirelessly with the help of GSM module [2]. Means user or registered person can able to send the message from anywhere and this message is displayed on LCD display. In addition this message also sends to everyone whose user number store in memory. Everyone get the message personally. Whenever, new message is received it is give indication by buzzer. As engineer's main aim, this project can be said a step to make the life simple using the technology. This project is a remote notice board with a GSM modem at the receivers end. So if the user wants to display any message, he can send the information by SMS and thus update the LCD display accordingly.

A. Meenachi *et al.* in his paper focusing on Wireless E-Notice Board Using Wi-Fi and Bluetooth Technology [3]. This project develops a photo type laboratory model wireless notice board system with WIFI MODULE and BLUETOOTH connected to it, which displays the desired message of the user through an SMS. In this project they are using various AT commands to display the message onto the display board. GSM technology is used to control the display board and for conveying the information through a message sent from authenticated user.

Abhishek Gupta *et al.* the main objective of this paper is to develop a wireless e-notice board that displays message sent from the user and to design a simple, easy to install, user friendly system, which can receive and display notice in a particular manner with respect to date and time which will help the user to easily keep the track of notice board every day and each time he uses the system [4]. GSM and Wi-Fi are the wireless technology used. In this paper they used Wi-Fi module for data transmission. In this project the main disadvantage of using Wi-Fi is the network failure.

Neenu Ann George *et al.* this paper deals with the implementation of voice-based system by using Bluetooth with the help of android application [5]. It uses a Raspberry pi and for voice recognition an android app is developed. The communication is made possible by using Bluetooth module. The main objective of this work is to develop a smart notice board which works in a well-organized manner with respect to date and time which will help the user to easily keep in track of the notice board every day and each time he uses the system and to convey the information more effectively.

CURRENT MODELS OF NOTICE BOARDS

Currently, we tend to accept putt up notices on the notice boards victimisation papers. This can be time overwhelming and conjointly there is wastage of paper. If we want to renew the notice then we have got to require a brand new textual matter. A separate person is needed to require care of this notice show. Now days, GSM electronic equipment based mostly notice boards are in use, however, they need router during which cable connections are done which create it complicated [6–8].

PROPOSED WORK

In view of the on top of it will be apparent that, there exists a desire of electronic board that permits economical thanks to the user for displaying notice. By considering increasing compactness of electronic systems, there is a desire of embedding two or a lot of systems along. This project is an implementation of the thought of wireless communication between a mobile phone and an Arduino controller. During this project work, we tend to are speculated to style a system that consists of show unit, and android device victimisation wireless technology. The show unit consists of LED show which will be interfaced with ATmega328 microcontroller.
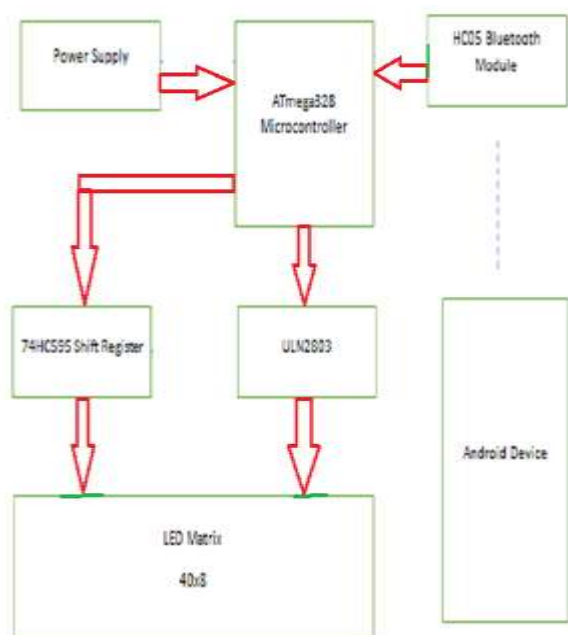
Fig. 1: Block Diagram.

Bluetooth is associate degree open wireless protocol for exchanging information over short distances from mobile devices, making Personal area Networks (PANs). It had been originally planned as a wireless different to RS232 information cables. It will connect many devices, overcoming issues of synchronization. Bluetooth can receive the signal sent by the automaton application device (mobile phone), and then send this signal to the microcontroller. In order to implement this project, we need to use an Android application that is capable of performing the following functions:

- Convert voice data to text.
- Send this text over to microcontroller via blue tooth for displaying on notice board.

In the past, we have seen paper and GSM based notice board which is time consuming and difficult to operate. We are designing a notice board which displays the message by our voice command and it is connected by the androiod application with the help of Bluetooth module.

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.

REFERENCES

1. Prof. R. G. Gupta, Nawale Shubhangi, Tupe Usha, Waghmare Priyanka. Android based E-notice board. *International Journal of Advance Research and Innovative Ideas in Education (IJARIIE).* 2016; 2(2).

2. Mr. Ramchandra K. Gurav, Mr. Rohit Jagtap. Wireless digital notice board using GSM technology. *International Research Journal of Engineering and Technology (IRJET).* 2015; 02(09).

3. A. Meenachi, S. Kowsalya, P. Prem Kumar. Wireless E-Notice board using wi-fi and bluetooth technology. *Journal of Network*

Communications and Emerging Technologies (JNCET). 2016; 6(4).

4. Abhishek Gupta, Rani Borkar, Samita Gawas, Sarang Joshi. GSM based wireless notice board. *International Journal of Technical Research and Applications.* 2016; 30–33p.

5. Neenu Ann George, Prabitha. P, Priyanka. A.K, Ershad. S.B. Raspberry Pi based speech recognition sensed smart notice board display. *IJSRD - International Journal for Scientific Research & Development.* 2016; 3(12).

6. Gargi Rajadhyaksha, Siddharth Mody, Sneha Venkateswar. Portable text to speech convertor. *International Journal of Emerging Technology and Advanced Engineering (IJETAE).* 2013; 3(8).

7. Smt. M. Baby, P. Harini, M. Sailaja, K. Annie Sumantha. SMS based wireless E-Notice board. *International Journal of Emerging Technology and Advanced Engineering (IJETAE).* 2013; 3(3).

8. Jigyasa Mishra, Apoorv Srivastav, Rahul Jain. Arduino based LCD display. *International Journal of Emerging Technology and Advanced Engineering (IJETAE).* 2014; 3(5).