

ANDROID PHONE SPEECH RECOGNITION SENSED VOICE OPERATED NOTICE BOARD DISPLAY: A REVIEW

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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 stucked 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. In 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, wireless, hi-tech, Android application, voice operated.

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 based Electronic Notice board, however speech controlled Notice board has additional advantage of ease of use. User has to give voice command in his/her own voice to control the messages displayed on electronic notice board. Voice recognition is done in the Android application. User has to install this Android application in his/her smart phone or tablet.

Bluetooth wireless technology is a popular technique 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.

II. LITERATURE REVIEW

R. G. Gupta et.al. [1]: In his paper basically focused on designing an electronic notice board for different sectors like schools. 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. [2]: 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. 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. [3]: In his paper focusing on Wireless E-Notice Board Using Wi-Fi and Bluetooth Technology. 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. [4]: 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. 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. [5]: This paper deals with the implementation of voice-based system by using Bluetooth with the help of android application. 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.

III. 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.

IV. 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 Arduino controller. In this project work, as seen in fig-1 we are designing a system which consists of display unit, and android device using wireless technology. The display unit consists of LED display that can be interfaced with ATmega328 microcontroller.

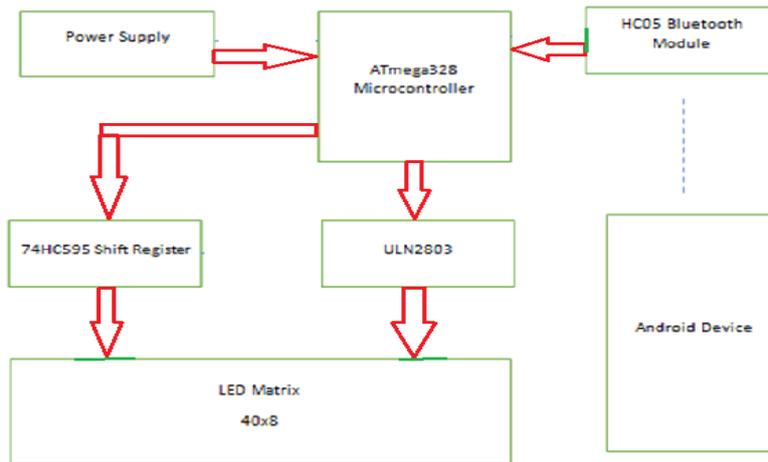


Fig:-1 Block Diagram

Bluetooth is an open wireless protocol for exchanging data over short distances from 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 use 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

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 android application with the help of Bluetooth module.

V. 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.

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