Voice Based Notice Board Using Bluetooth and Android Application

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Abstract: **Notice boards are a common occurrence in variety of institutions which we come across on a daily basis. In the upcoming days, the notice boards are being managed manually. There is a long process involved in order to put up notices on the notice board. This wastage a lot of resources like paper, printer ink, man power and also brings about loss of time. In this project, we have proposed a system which will enable people to wirelessly transmit notices on notice board using microcontroller. We can also make the system compatible with more than one wireless technology.**

Keywords: **Microcontroller, LCD Display, Bluetooth module, Android application.**

1. Introduction

We come across situations where we need to urgently display notices on a screen. For areas like railway stations and other such busy facilities the station master/announcer need not have to type in every announcement message manually on the screen. So here we propose an innovative android based notice display system that allows the user to display notices without typing them in manually. Here the announcer/administrator may speak out the message through his/her android phone.
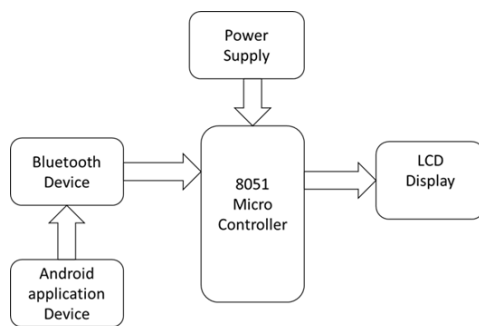

Fig. 1. Block diagram

A. Microcontroller

Here we are using microcontroller to receive the message from the Bluetooth module. That received signal is displayed on LCD by using microcontroller. Some features of 8051 microcontroller are as follows:

- It is an 8-bit microcontroller.
- It is built with 40 pins DIP (dual inline package).
- 4kb of ROM storage and 128 bytes of RAM storage.
- 2 16-bit timers.

- It consists of are four parallel 8-bit ports, which are programmable as well as addressable as per the requirement.

B. LCD Display

In this Voice Based Notice Board Using Android system, LCD display is used for displaying the message received by the Bluetooth module which is send through android. This is the 16 pins LCD display; we are interfacing the LCD display with 8051 microcontroller.

C. Bluetooth Module

HC-05 module is an easy to use Bluetooth SPP (Serial Port Protocol) module, designed for transparent wireless serial connection setup. Serial port Bluetooth module is fully qualified Bluetooth V2.0+EDR (Enhanced Data Rate) 3Mbps Modulation with complete 2.4GHz radio transceiver and baseband. Here we are using Bluetooth module to receive signal from android phone.

D. Android Application

To make this system successful we must require android application to convert voice into text. For this purpose, we have to install android applications like speech notes, voice Notes, Speech Texter. Here we are used Speech Texter android application.

2. Conclusion

The display boards are one of the major communications medium for mass media. Local Language can be added as a variation in this project. Also we realize that this project saves time, energy and hence environment. Cost of printing and photocopy is also reduced.

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