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Bluetooth Android Control Wireless Notice Board

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ABSTRACT:

The project overcomes this problem by introducing an electronic display notice board interfaced to an android device through Bluetooth connectivity. The Bluetooth receives the message from the android device that is sent to a microcontroller of 8051 family. The microcontroller displays the message on a LCD screen. This project can be used in colleges, offices, railway stations or airports for displaying any information.

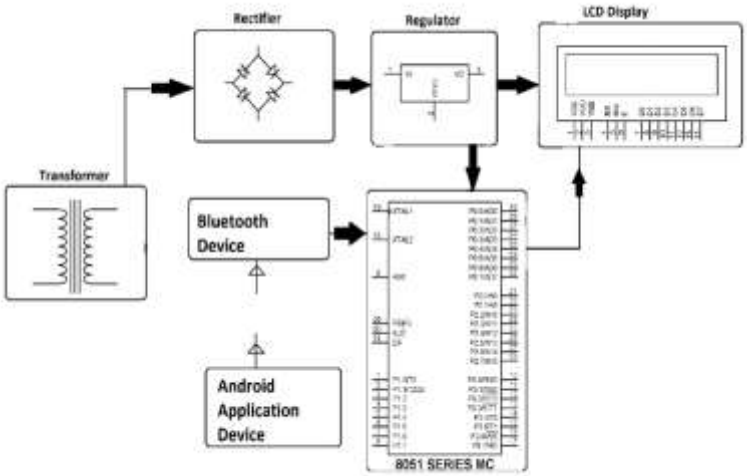
Keywords: 8051 Microcontroller, Bluetooth Module

Objective:

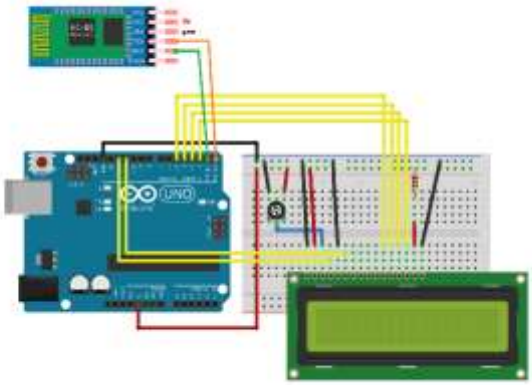
The project aims at designing a LED based scrolling message display controlled from an android mobile phone. The proposed system makes use of Bluetooth technology to communicate from android phone to LED display board. This project is to develop an embedded system, which is used for instant information display using LED's by using android Bluetooth module[5]

Introduction:

The main idea of the voice operated electronic board show is to point out messages and to regulate them by our own voice. Speech controlled electronic notice board has extra advantage of simple use, User needs to formulate message in his/her own voice to regulate it and displayed on electronic notice board. Voice recognition is finished within the android application. User needs to install the application AMR_voice. Bluetooth wireless technology is a technique having the wireless a part of the communication channel; through which utilized message have been transmit and receive knowledge[3] .The BLUETOOTH module receives a message from the authorized mobile phone and the message is extracted by the microcontroller from the BLUETOOTH module and is displayed on the MATRIX display board. Serial to parallel communication is used for the entire process from WIFI module to Microcontroller and from microcontroller to the matrix display. And for the acknowledgement LCD display is used. This proposed system in this paper has many upcoming applications in educational institutions and organizations, crime prevention, traffic management, railways, advertisements etc. Been user friendly, long range and faster means of conveying [7]



Working of the Project



Above circuit diagram speaks it all for the sake of this project.The LCD pins are connected to Arduino pin 12, 11, 5, 4, 3, 2 as shown in the circuit diagram now we are more than half way mark. Connect the potentiometer to the shown pin of LCD to control the contrast.Now comes the bluetooth module and which will have its Rx,Tx pin connected with Tx,Rx pin of Arduino respectively. Battery or power adapter of 5-6V is required. So, data sent to the bluetooth module using mobile or any bluetooth enabled devices through bluetooth terminal apps are fetched to the Arduino and in return displayed on the LCD.[6]

Advantages and Applications

- No need of any difficult wires to display the information on the LCD as it is wireless.
- Easy to operate and Consumes less power. This circuit is handy.
- It is used to display the information wirelessly in public areas like bus stations, parks, railway stations, colleges and organizations etc.[4]

Future scope:

This proposed system has many upcoming applications in educational institutions and organizations, crime prevention, traffic management, railways, advertisements etc.[2]

Conclusion:

As the technology is advancing every day the display board systems are moving from Normal handwriting display to digital display. Further to Wireless display units. This project develops a wireless notice board system with Bluetooth connected to it, which displays the desired message of the user through an SMS in a most populated or crowded places. Here 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 and with less errors and maintenance.

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