

Rf Based Wireless Notice board

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Abstract : *Devices commonly used to display various notices are the notice boards. This is designed to display scrolling messages for notice board. It can be used to display various latest information anywhere such as colleges, shops, railway stations and different types of places. Notice board is all about sticking different type of information. Sticking various notices day-to-day is difficult in our day- to -day life. A person is required separately to take care of this notice board. This system displays it on notice boards. This system can be implemented in various places where latest information is to be displayed. For example, if implemented in colleges all information for students can be displayed. It is very convenient for students and college management to display any type of information and recent instruction. This system can also be implemented for the people who are physically challenged.*

Keywords: *College, Information, Notice Board, Physically Challenged.*

I. Introduction

This system can be implemented in many important places where latest information can be displayed. For example if implemented in colleges all information for students can be displayed. It is very convenient for students and college management to display any information. This system can also be implemented for the people who are physically challenged. The aim of this project is to develop a wireless notice board that will be used by the faculty members in order to display latest information regarding various notifications. All electronic notice boards are designed using wired system the drawback of the design is the system is inflexible in term of placement because of the messy wire.

Wireless electronic notice board is designed as a user friendly notice board with wireless concept that offers flexibility to control the notice board within a range of 25 meters. The input of the system is PC. The PC is connected to the electronic notice board by using RF technology.

II. Problem Statement

Here we have used a step down transformer which gives 9V AC which we convert with the help of bridge made by 4 diode shown in the circuit which is further passed to the capacitor of 1000Uf which is used to eliminate the spick after that the voltage is passed to the regulator IC 7805 Which will pass 5V to the Output at Output the 0.1uf Capacitor is connected to output to avoid the noise distortions. The purely DC supply is connected to the Microcontroller 89S52.

The micro controller 89S52 is brain of project operation is Controlled by this. It consists of four Port. The Port p1 is used to connect the LED. And the Result Set (RS) are placed at the P1 port's bit '0' also Read and write (RW) operation is perform at the bit P1 ports bit '1'. An enable (EN) pin is used at the p1 ports bit '2'. With the help of 22E resistor the contrast will be adjusted at pin no 10 is RXD pin is RF module is connected which will transmit and receive the data and at TXD LED display is connected which will receive the string and display it on LED.

Organization of Project

Describe the brief introduction, problems in existing system, process, Model and RFID and Literature review of the project.

III. System Description

Microcontrollers are used in the industrial world to control many types of Equipment, ranging from consumer to specialized devices. They have replaced the older types of microcontrollers, including microprocessor. Furthermore, there is a growing need for offline support of a computers main processor. The demand will grow as more equipment uses more intelligence.

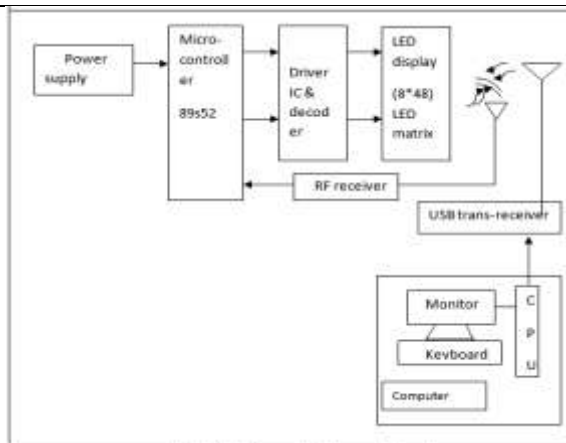


Fig 1: Block diagram of wireless notice board.

3.1 Block diagram Description

3.1.1 Microcontroller: In this project we have used a microcontroller 89S52. Which is the heart of the project. This controls all the functions of project. Which will continuously Monitor that the message is received or not

3.1.2 RF module: In our project we have used the RF transmitter and receiver which is used to communicate with each other it operates on the operating frequency 2.4GHZ. For our RF module we require 5V DC Supply

3.1.3 LED Matrix: Our display is consist of 48x8(384 LEDs) 5mm dot size LEDs in Matrix format (8 LED height and 48 LED width) .The operating voltage of the display is 5V dc and it can be directly configure to the controller

3.1.4 Power Supply: It is used to supply the power to Max232 and microcontroller, LED, etc

IV. Conclusion

Using this notice board, paper work will be decreased and its time consuming technique. Message will be secured. This system is used in the Schools, colleges and various places such as industries, stations to display any kind of notices or messages. This system also can be used for advertisement. "RF based wireless notice board using microcontroller" we designed this notice board is working properly for college purpose. We got a lot of experience with the electronic components and we learned the PCB designing and software tips.

V. Results



Fig 2: Snapshot of software

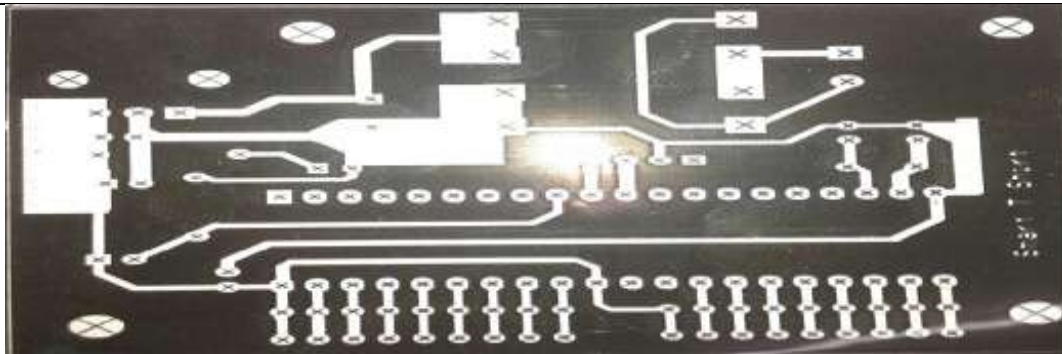


Fig 3: PCB negative image



Fig 4: Top layer of PCB assembly

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