REMOTELY CONTROLLED ANDROID BASED ELECTRONIC NOTICE BOARD

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Abstract—**In present scenario notice board is required in many organisations. A notice board display is used to display the message/information sent by the high authorities of the organisation. A separate person is allotted to stick the various notices which is a very difficult process. Here this project is dealing with hitch wireless Electronic notice board. Whenever a message is sent from the user's android application device, the message will be displayed on wireless electronic notice board. This message can be sent from any tablet/smart-phone etc. with Android OS upon a GUI based on touch screen operation. When the user is sending the message from android application device this will be received by the Wi-Fi-modular. As the Wi-Fi module has its own IP address and port number that will be known only to the users who is operating. Later it is sent to the microcontroller that further helps in displaying the notice in wireless electronic notice board which is equipped with 16*2 LCD.**

Keywords—**: Micro controller, WI-FI (Wire Less Fidelity) , LCD(Liquid Crystal Display), Android Phone, SMS (Short Messaging System), Connection Terminal App.**

INTRODUCTION**:** Electronic notice board can be used at different places where the information is displayed. For example if the system is implemented in colleges all the information uses to the students can be shorted by the higher authorities of the college. It is very easy to use this kind of notice board and display the information. This process helps in having less physical work which is mostly used for physically challenged people.

The main aim of the project is to have a electronic notice board where the least information can be shorted by the faculty to the students. The system w are using is a wireless system so there is no mess of wires on the board and so the system is very flexible ad it can store the information up to 30 meters. The input here we are using is an android phone. This phone is connected to electronic notice board by using Wi-Fi through connection terminal app.

I. RELATED LITERATURE

Sending the messages with a wireless electronic display board to the people which is synchronized using Wi-Fi technology. This will help in passing the message without any delay with more reliability rather than old traditional way of pasting message on the notice board. The proposed system can be used in many public places like colleges, banks, malls, even big buildings to enhance the security system and avoid many dangers. Many at commands are used to display a message on notice board Wi-Fi technology is used to control display board **an** convey information to more people where the message is sent by the user.
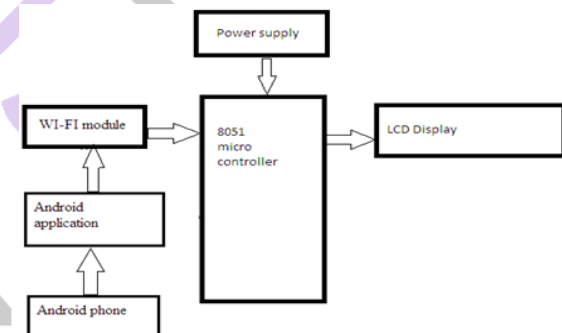
A.Block diagram

Fig.1 Block Diagram Of Remotely controlled Electronic notice board using Wi-Fi

PROBLEM DEFINITION:

Here we have used a step down transformer which gives 230V AC which we convert with the help of bridge made by 4 diode shown in the circuital 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 8051. The micro controller 8051 is brain of project operation is Controlled by this. It consists of four Port. The Port p2 is used to connect the LCD. Max 232 IC transmitted output pin (T2) is connected to the receiver pin of Wi-Fi module and receiver (R2) INPUT pin is connected to the transmitter pin of Wi-Fi module. Port3 of Receiver pin(10th pin) are connected to the Receiver output pin (12th pin) of max 232 IC and port3 of Transmitted pin (11th pin) is connected to the Transmitter input pin (11th pin) . Reset pin of LCD is connected to the enable pin of Port3 and Enable pin of LCD is connected to the Reset pin of Port3. Crystal Oscillator is connected to the 18th& 19th pins of port3.Reset switch is connected to the 9th pin of port1.

C. Flowchart of the proposed system

B. Working Principle of the proposed system

We proposed system consists of following components:

1) LCD
2) Wi-Fi Module
3) Power supply
4) Micro Controller
5) Android phone
6) Android application

LCD: The LCD which we are using is 16*2. It contains two lines as it can display 16 characteristics in each line LCD us used to display the message. The operating voltage of the LCD is 5v.

Wi-Fi modules: the Wi-Fi module we are using in our project is Esp8266. A 3.3v Dc supply is required for this module. If the power supply exceeds more than 3.3v the module will get damage.

Power supply: The power supply is used for converting one form of energy to another form. The power is supplied to max of 230v. Micro controller/ Wi-Fi module and LCD.

Micro controller: The microcontroller which we are using is 8052 microcontroller. This requires 5v supply which is used to control all the functions of our project.

Android Phone: In this, android phone we are using connection terminal app to interface micro controller with Wi-Fi module to display a wire less message transmission.
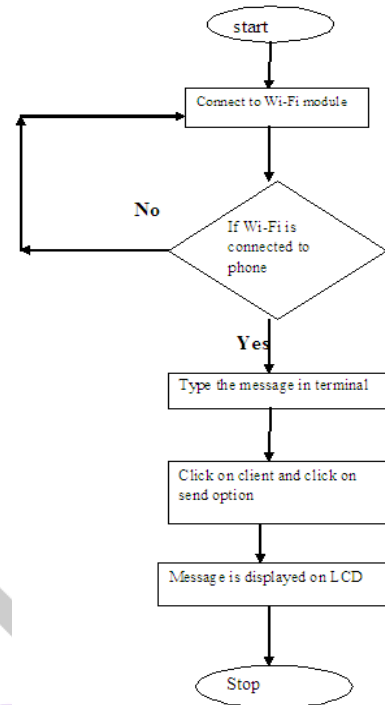
Fig.2 flowchart of remotely controlled electronic notice board using Wi-Fi

D. Applications

- Educational Institutions and Organizations.
- Managing Traffic.
- Advertisement Conference Hall
- Bus or Railway stations.
- Any Public Utility Places.

E. ADVANTAGES:
- Multiple users are authorized to update notices on the electronic notice board.
- No printing and photocopying cost. Thus save time, energy and finally environment.
- Prevents unauthorized access of notice board.
- No need of any difficult wires to display the information on the LCD as it is wire less.
- Easy to operate and Consumes less power. This circuit is handy.

F. Scope for future work

- 16x2 LCD Display can be replaced by other LCDs which can display more characters According to the need.
- Along with the notice messages, date and time; breaking news can be flashed timely.
- Currently only one message can be displayed at a time this can be overcome by using many

CONCLUSION**:**

As the technology is advancing every day the display board systems are moving from Normal hand writing display to digital display. Further to Wireless display units. This project develops a photo type laboratory model wireless notice board system with Wi-Fi module connected to it, which displays the desired message of the user through an SMS in a most populated or crowded places. By developing an Android application in this proposed methodology we can enhance the security system and also make awareness of the emergency situations and avoid many dangers.

ACKNOWLEDGMENT

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