Smart and Cost effective wireless electronic board message updating system from Android mobile

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Abstract - **Notice board is the one of the best medium to communicate with the mass media. Notice boards are commonly used at the public utility places. The project, Bluetooth Supported e-Notice Board is an SMS-based and Android-driven Digital display board system, designed to improve the noticing processes by using Bluetooth. The proposed system will help user to display notices from anywhere with the help of user's Android mobile phone, wirelessly. Android application provides security to the system. User sends the notices by SMS, which is received at Bluetooth modem and display on LCD notice board. This project is our experiment on real time noticing. Here we also introducing a security gate system by which the officer can make gate open and close by sending a message through Bluetooth to the system.**

Index Terms - **MSP430G, Motor driver (L293D), DC Motor, Buzzer, LCD Display**

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I. INTRODUCTION

Previously an electronic notice board consists of a message with an android phone but here we used a new thing that is adding of a operating a gate or door by using this electronic notice board by messaging OPEN and CLOSE to the notice board by which a person can easily operate the gate open and close when he was away with a distance from the gate/door. Which is used in various applications and we used a buzzer which can be on and off when in emergency cases in an institutes, hospitals, etc.

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The Receiver module placed at the remote end consists of Bluetooth module interfaced with a micro-controller for displaying messages on LCD. Password based authentication is employed on transmitter side in order to provide access control to only authorizedusers. Primarily16x2 LCD is been used for displaying messages which we can further extend to larger LCD.

EXISTING SYSTEM

Notice board is the one of the best medium to communicate with the mass media. Notice boards are commonly used at the public utility places. The project, Bluetooth Supported e-Notice Board is an SMS-based and Android-driven Digital display board system, designed to improve the noticing processes by using Bluetooth.

PROPOSED SYSTEM

Here we are introducing a security gate system by which the officer can make gate open and close by sending a message through Bluetooth to the system.

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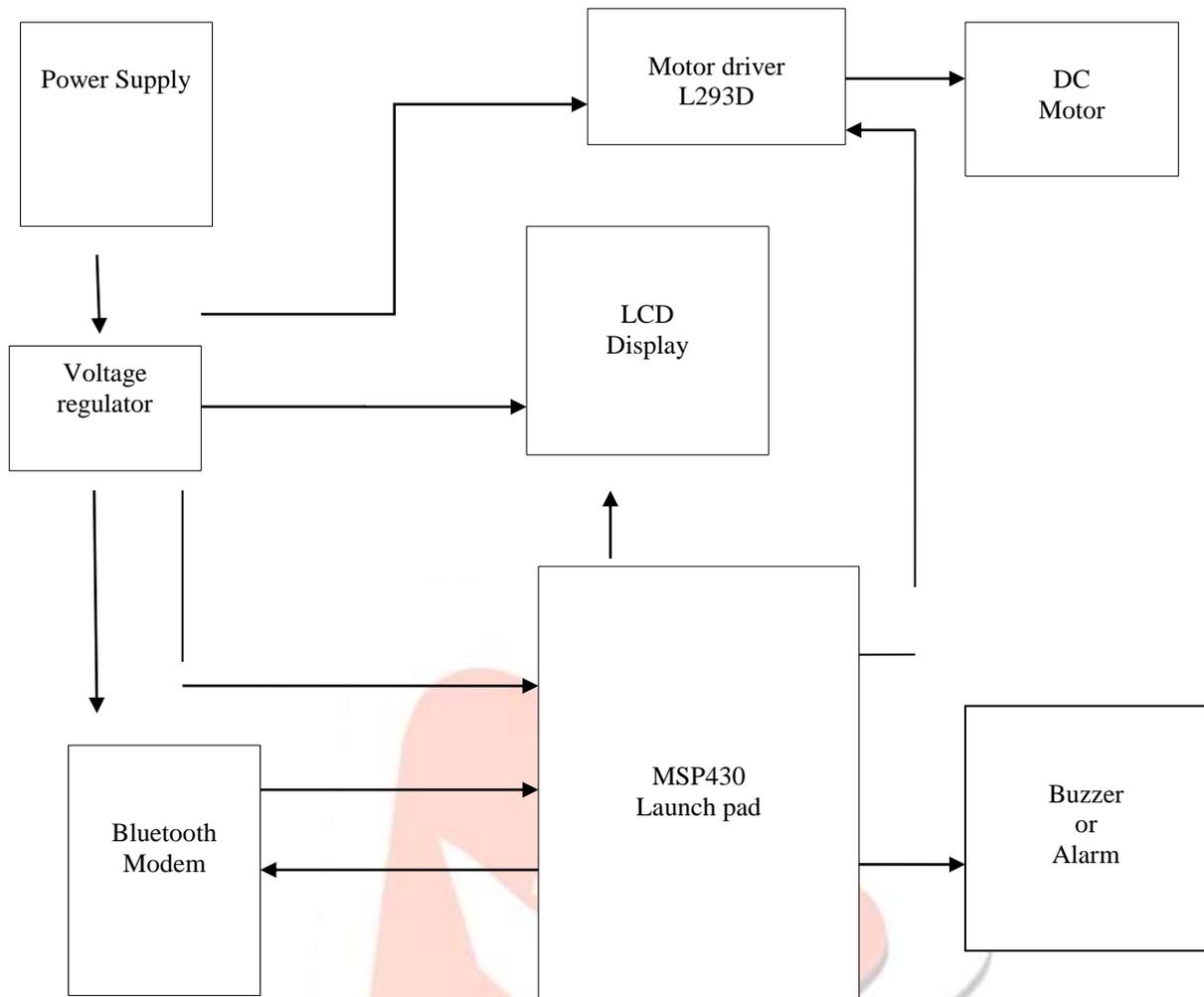
1.1 BLOCK DIAGRAM
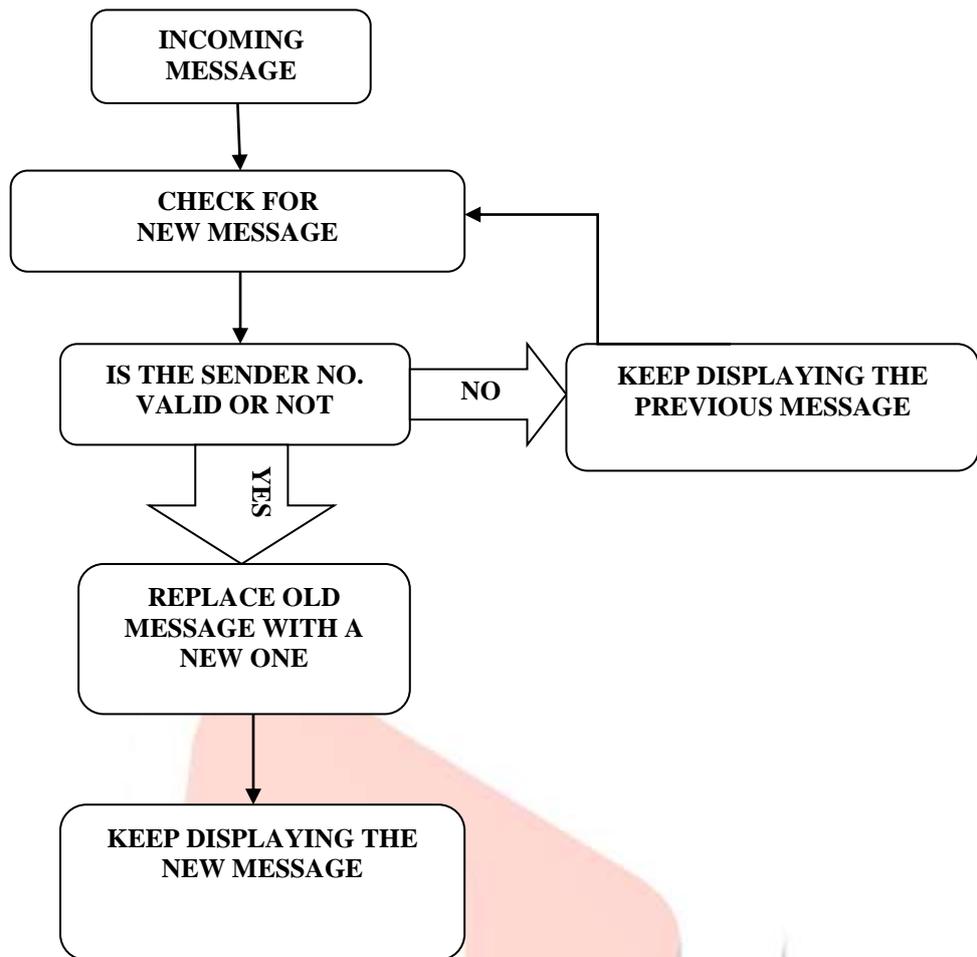
Figure:1 block diagram

1.2 WORKING

In the above circuit 230v AC is converted into 12v AC by using a transformer and then it is converted into 12v AC into 12v DC by using a rectifier circuit .the adaptor is used which is inbuilt with transformer and rectifier circuit, after that a voltage regulator 7805 is used to regulate the 12v dc .The 5v DC is feed to MSP430G launch pad , LCD display , driver circuit and Bluetooth. Here Bluetooth will gets an information from an android phone which consists of Bluetooth spp app which is used to transfer a message from phone Bluetooth to Bluetooth modem in the circuit.

By this the message which is given at phone is transferred in the form of digital signal to MSP430G Which again checks and transfers the data to the display (LCD) where the information is displayed. The driver circuit needs 5v DC supply, which is given from input supply. Here we used a driver circuit (L293D) which drives the motor to ON and OFF by the instructions received by the Bluetooth to the MSP430G micro controller which controls and operates the motor by the driver circuit (L293D).

Here we also used a motor which is used in security purposes, water pumping purposes etc. Here we used for security system at the gates of colleges ,institutions, hospitals and where the gate can be operated by a person by sending a message OPEN through Bluetooth and CLOSE for closing the gate. This is done by checking the message from Bluetooth by MSP430 microcontroller which makes easy to operate and control.
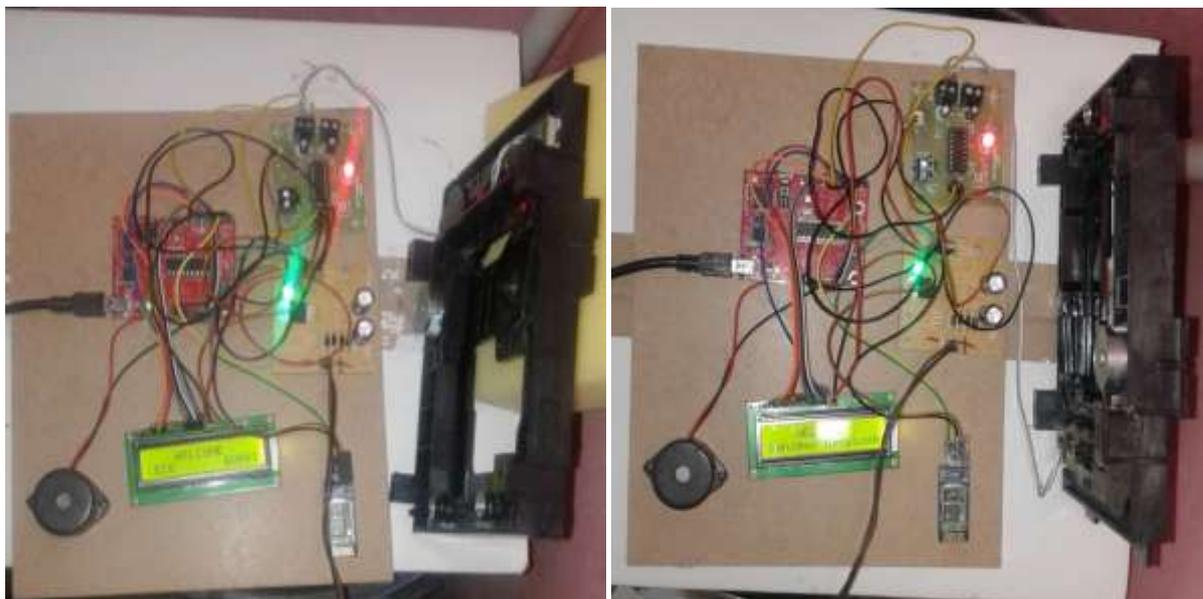
And we also used a buzzer for emergency cases which indicates the alarm for securing or avoiding accidents in an area. This also operated by the MSP430G microcontroller by the operator's instructions.

FLOW CHART

```
              ┌─────────────────┐
              │    INCOMING     │
              │    MESSAGE      │
              └────────┬────────┘
                       │
                       ▼
              ┌─────────────────┐
              │   CHECK FOR     │◄──────────────┐
              │  NEW MESSAGE    │               │
              └────────┬────────┘               │
                       │                        │
                       ▼                        │
              ┌─────────────────┐    NO   ┌──────────────────────┐
              │ IS THE SENDER NO.│───────►│ KEEP DISPLAYING THE  │
              │ VALID OR NOT    │        │  PREVIOUS MESSAGE    │
              └────────┬────────┘        └──────────────────────┘
                       │ YES
                       ▼
              ┌─────────────────┐
              │  REPLACE OLD    │
              │ MESSAGE WITH A  │
              │   NEW ONE       │
              └────────┬────────┘
                       │
                       ▼
              ┌─────────────────┐
              │ KEEP DISPLAYING THE │
              │  NEW MESSAGE    │
              └─────────────────┘
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1.3 RESULTS

ADVANTAGES & 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.
- The electronic notice board is wireless and no need of wires for displaying the information on the LCD display.
- It is very easy to operate and consumes less power
- The circuit of the wireless notice board is portable.
- It is used to display the information wirelessly in public areas like bus stations, parks, railway stations, colleges and organizations etc.
- The applications of wireless notice board mainly include public places like bus stands, railway stations, airports, shopping malls and parks to display the information wirelessly.
- This project is also used in organizations, schools and colleges.

CONCLUSION

Wireless operations permit services, such as long-range communications, that are impossible or impractical to implement with the use of wires. It provides fast transfer of information and are cheaper to install and maintain. This project provides an efficient way of displaying messages on Notice Board using Wireless Technology. It also provides user authentication in order to avoid any misuse of proposed system.

II. ACKNOWLEDGEMENT

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