

Chapter-15

Smart Notice Board

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The importance of placing notice boards in institutions or organizations and public utility places like airports, bus stations and railway stations to display and pass information can never be overemphasized. However, day-to-day changing of notices in these places is a difficult task. Wireless Electronic Notice Board is used for transmission of text data through wireless GSM interfaced with microcontroller. It displays online message on public places. The system consists of a GSM receiver and a display unit which can be programmed from an authorized mobile phone. The GSM receiver receives the information to be displayed as SMS which is then displayed on the display unit. Being a wireless electronic board, it is easily expandable and allows the user to add more display unit at any time and place which allows instantaneously display of important messages.

GSM Based Wireless Electronic Board helps in passing messages almost immediately by sending SMS which is better and more reliable than the old traditional way of pasting messages on notice board. The main aim of this paper is to design SMS driven automatic display board which can replace the currently used conventional wooden notice boards in most universities.

The notice board displays messages sent from the user's mobile. When a user sends a message from his mobile phone, it is received by a SIM loaded GSM modem at the receiver unit. This project has a moving message Display, which can be used as the digital notice board, and also a GSM modem, which is the latest technology used for communication between the mobile and the embedded Devices. System will work like when the user wants to display or update the notice board, He must send the message in his mobile defining the messages and then the password of the system to the number of the sim which is inserted in the display system MODEM. Then The MODEM connected to the display system will receive the SMS, the microcontroller Inside the system is programmed in such a way that when the modem receives any message The microcontroller will start displaying the messages in the display system not only that its Will also sends the received message notification. The messages are displayed on the system using high speed techniques, the entire Display column is

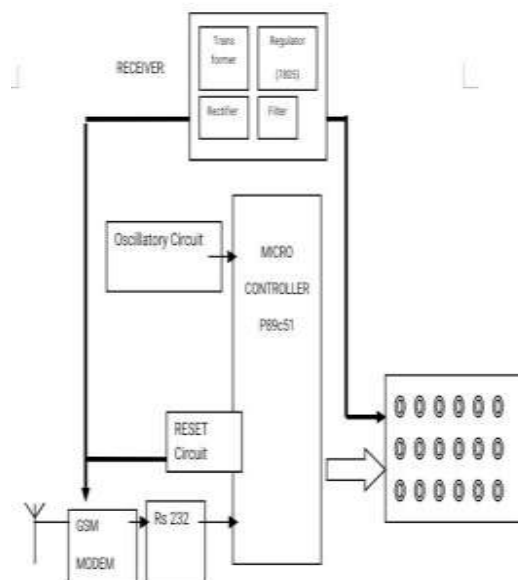


Fig 1: Block diagram

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connected to shift register output so that the characters are first shifting to each column and then the microcontroller will switch on the row one by one with small Delay. This process is continuing in high speed so that the viewer will feel the display in a More brightness.

ADVANTAGES

- GSM providers are available almost in many countries'
- We can Switch ON/OFF the devices by sending a SMS from any place in the world.' It is cheaper when compared to the other type of automation system.'
- It is more effective when compared to the other type of automation system.'
- It is easy to change the system's action according to change in situation.'
- We can control the home appliances by sending a SMS to programmed home Automation kit with coded instructions by the authenticated programmer Simultaneously we will get feedback and the status of the device. Since we have an option of Roaming Service provided by the GSM service providers hence, we Can get SMS at any place on the earth.

Used at Education Institutions and organizations: currently we rely on putting up papers on notice boards to notice to inform people of events. This method can be discarded by using wireless notice boards to display information in real time [8] Advertisement: In shopping malls we get to hear the offers on various products from time to time. Instead, we continuously display the information regarding the products and related offers on electronic display boards. Railway station: Instead of announcing the delay in arrival of trains we can display the information.



Fig 3: Hardware

The Result of this overall development of smart notice board is shown in above figure which is at output by LED notice board for the displaying messages in order to notify the important notifications in short term and also to avoid the human interference for every little bit of work. This project makes easier to notify the students within short period of time without fail. It avoids individual information sharing instead of announcing the delay in arrival of trains we can display the information and also in educational institutions for communication between students and heads and other faculty members.