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TITLE: SMALL AND LONG RANGE WIRELESS ELECTRONIC NOTICE BOARD USING BLUETOOTH,GSM AND IOT.

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Abstract:

Notice board is primary thing in any institution or organization or public utility places like bus stops, railway stations or parks. But sending various notices day to day is a tedious process. This paper deals with advanced notice board. It presents an SMS based notice board incorporating the widely used GSM to facilitate the communication of displaying message on notice board via user's mobile phone. Its operation is based on microcontroller ATMEGA32 programmed in assembly language. A SIM300 GSM modem with a SIM card is interfaced to the ports of the microcontroller with the help of AT commands. When the user sends a SMS via a registered number from his mobile phone, it is received by SIM300 GSM modem at the receiver's end. SIM300 is duly interfaced through a level shifter IC MAX32 to the microcontroller. The messaged is thus fetched into the microcontroller. It is further displayed on an electronic notice board which equipped with LCD display interfaced to microprocessor powered by a regulated power supply from mains supply of 230 volts ac. Depending on the range Bluetooth or IOT is used. This project is our experiment on real time noticing.

1.INTRODUCTION

In this world Mobile Phones and the related technologies are becoming more and more prevalent. Various technical arenas in the field of Telecommunication and Embedded Systems are becoming omnipresent in the people. The use of cell phones has rapidly increased over the last decade and a half. Upgradation in networking technologies has encouraged the development and growth of very dense networks. Now-a-days the general mass prefer communicating while on the move therefore landlines usage has been drastically reduced. Notice boards are one of the widely used ones ranging from primary schools to major organizations to convey messages at large. A lot of paper is been used and which is later wasted by the organizations. This in turn leads to a lot of deforestation thus leading to global warming. Small innovative steps in making use of technology for regular purposes would have an adverse effect on the environment issues which we are presently concerned about. The main aim of this paper is to design a SMS driven automatic

display Board which can replace the currently used programmable electronic display and conventional notice boards. It is proposed to design to receive message in display toolkit which can be used from an authorized mobile phone. The

whole process can be described from the transmitter and receiver section. The WIFI/BLUETOOTH module receives a message from the authorized mobile phone and the message is extracted by the microcontroller from the WIFI/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 information are major bolsters for this application. By using this proposed methodology we can enhance the security system and also make awareness of the emergency situations and avoid many dangers

2.RELATED WORK

Intimating the message to the people using a wireless electronic display board which is synchronized using the GSM technology. This will help us in passing any message almost immediately without any delay just by sending a SMS which is better and more reliable than the old traditional way of pasting the message on notice board. This proposed technology can be used in many public places, malls or big buildings to enhance the security system and also make awareness of the emergency situations and avoid many dangers. Using various AT commands is used to display the message onto the display board. GSM technology is used to control the display board and for conveying the information through a message sent from authenticated user.

3.EXISTING SYSTEM

Presently almost all electronic notice boards are designed using wired system. Wired electronic noticed board is used in college, hospital. One of the drawbacks of the design is the system is inflexible in term of placement. The common Electronic notice board cannot be placed anywhere because of the messy wire and message can't update frequently. After a wired electronic notice board a wireless notice board has developed that will be used anywhere and frequently updated message any time in order to display latest information.

4.PROPOSED SYSTEM

Intimating the message to the people using a wireless electronic display board which is synchronized using the GSM technology. This will help us in passing any message almost immediately without any delay just by sending a SMS which is better and more reliable than the old traditional way of pasting the message on notice board. This proposed technology can be used in many public places, malls or big buildings to enhance the security system and also make awareness of the emergency situations and avoid many dangers. Using various AT commands is used to display the message onto the display board. GSM technology is used to control the display board and for conveying the information through a message sent from authenticated user.

BLOCK DIAGRAM
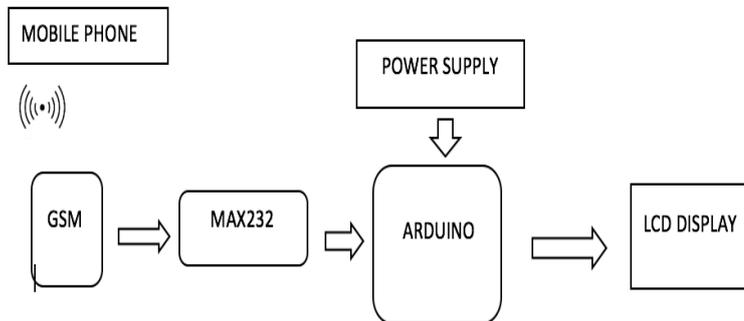
Blinking an LED

Introduction :

LEDs are small, powerful lights that are used in many different applications. To start off, we will work on blinking an LED, the Hello World of microcontrollers. That's right - it's as simple as turning a light on and off. It might not seem like much, but establishing this important baseline will give you a solid foundation as we work toward more complex experiments.

Parts Needed

You will need the following parts:

•1x Breadboard

•1x Arduino Uno R3

•1x LED

•1x 330Ω Resistor

•2x Jumper Wires

Blinking LED

The first program every programmer learns consists in writing enough code to make the code show the sentence "Hello World!" on a screen. The blinking LED is the "Hello World!" of physical computing.

LEDs

An LED is a small light (it stands for "light emitting diode") that works with relatively littlepower. The Arduino board has one built-in on digital pin 13.
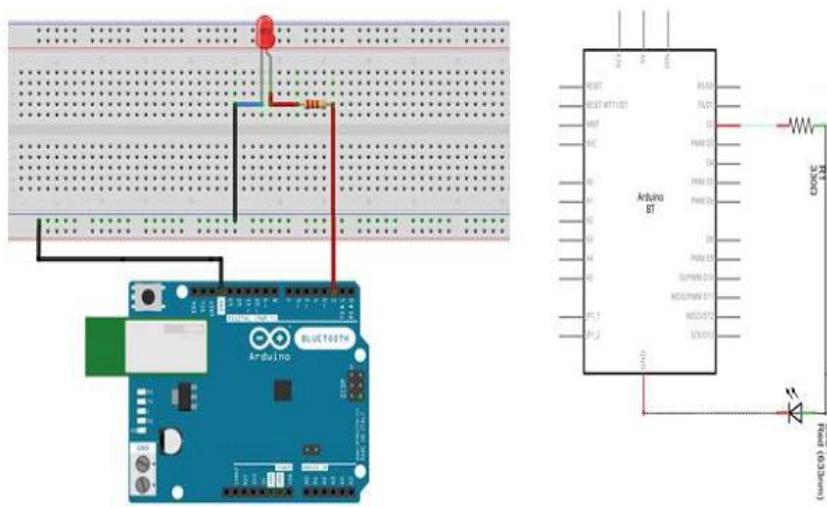
ADVANTAGES

- INCREASED RANGE- Gsm/iot increases range compared to Bluetooth.

- ENVIRONMENT FRIENDLY- Reduces paper and printer and toner usage and costs.

- LIVE INFORMATION- Can link to other computer systems for live information.

- RELEVANT NOTICES- Set an expiry date to ensure notices are only shown when relevant.

- INSTANT INFORMATION UPDATES-No need to walk around pinning up lots of notices or posters.

APPICATIONS

- EDUCATIONAL INSTITUTIONS-For displaying important notices.

- HOTELS: To display the availability of rooms.

- RAILWAYS: To display daily schedule of trains.

- HOSPITALS: Availability of doctors.

- PARKING: Availability   of   car   parking   in   malls.

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