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Web Based Wireless Notice Board(Real-Time)

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Abstract- Notice boards are playing very important role in our day-to-day life. By replacingconventionalAnalogtypenoticeboardwithdigitalnoticeboard,wecanmakeinformation dissemination much easier in a paperless community. Here the admin cancontrol notice board through internet. So, the information can be sent anywhere in theworld and can be displayed within seconds. Information is in the form of text. PC isused for sending information and Arduino is connected to internet at the receiving sideusingWi-FiModule.ByCreatingawebapplicationontheserverendtheusercanloginusing his login credentials and then type in the message that has to be displayed on thedisplay unit. Once he clicks on the submit button the information from the server isreceivedbythe Arduino usingWi-Fi moduleandthen itis passed tothedisplayunit.

Index Terms- About four key words or phrases in alphabetical order, separated by commas. Keywords are used to retrieve documents in an information system such as an online journal or a search engine. (Mention 4-5 keywords)

I. INTRODUCTION

Notice Board is primary thing in any institution or organization orpublicutility places.

In this type of notice board, sticking various notices day to day is a difficultprocess.

Using this notice board, we can display day to day information continuous orat regular intervals during working hours. This device can be set up at variousplacesin thecampus.

Thiswill help tosend informationquickly

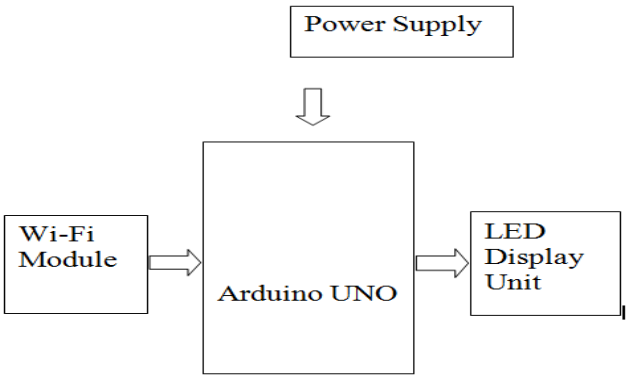

Fig1.Blockdiagramof Wireless Notice Board

Figure above shows the Block diagram for the proposed system. The mainobjective of the system is to develop a wireless notice board that displaysnotices in the form of text. It uses a Arduino UNO as a processor. ArduinoUNO is equipped with a Portable P10 LCD display. We can display messagesandthemessagescanbe easilyset orchangedfromanywhereintheworld.

Mobileapplicat system and this message is sent to cloud. Then it passes to the notice boardwhich is connected to internet by Wi-Fi. The processor, process it and displaysonthe screen.

Amazonwebservicesisused tohostthewebapplication.

Webapplicationiscreated ontheserverendsothatusercanaccessusinglogincredentials.

Afterlogin, wewilltypethe messageto bedisplayed.

- This message will be received by

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Arduino using Wi-Fi module and then it willappearon thedisplayunit.

HardwareRequirement:

1. PowerSupply
2. ArduinoUNOBoard
3. ESP8266Wi-FiModule
4. LEDDisplayUnit
5. LedDisplayDriver

- This message will be received by Arduino using Wi-Fi module and then it willappearon thedisplayunit.

HardwareRequirement:

6. PowerSupply
7. ArduinoUNOBoard
8. ESP8266Wi-FiModule
9. LEDDisplayUnit
10. LedDisplayDriver

SoftwareRequirement:

1. Arduino IDE
2. HTML&PHP Programming
3. AWS(AmazonWeb Services)

II. EXISTING WORK OR LITERATURE SURVEY

Display Message on Notice Board using GSM. [1] Reference no 1. This paper deals with 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 ATMEGA32programmed in assembly language. ASIM300 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 send. Electronic Notice Board with Multiple Output Display Prof. KruthikaSimha Shreya Chethan Kumar, Parinitha C, Shashidhar Tantry (Department of Electronics and Communication Engineering, PES Institute Of Technology, Banglore College of Engineering Belagavi, India) In this paper simha, it can be easily integrated with general purpose display board to provide its mobility. The system accept the message from of SMS and display on the notice board. Development of Simple and low Cost Android Based Wireless Notice Board Neeraj Khera, Divya Shukla, Shambhavi Awasthi In this paper the technological advancement of the notice board is purposed that will help to save time and resources. Also it makes the information available fast to the person. GSM based Smart Home and Digital Notice Board This paper is based on home controlling application and notice displaying using android has been built. This project is based on the LCD display and LPC2148 Microcontroller. Limitations: a. SMS

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Based system. b. Unable to display Audio and Video. c. No Scheduling.

2. WIRELESS ELECTRONIC DISPLAY BOARDUSING GSM TECHNOLOGY. [2] REFERENCE NO 2 .THIS PAPER DISCUSSES THE DESIGN OF SMS DRIVEN AUTOMATIC DISPLAY BOARD WHICH CAN REPLACE THE CURRENTLY USED PROGRAMMABLE ELECTRONIC DISPLAY AND CONVENTIONAL NOTICE BOARDS. IT IS PROPOSED TO DESIGNRECEIVE CUM DISPLAY TOOLKIT WHICH CAN BE PROGRAMMED AND LATER BE USED FROM AN AUTHORIZED MOBILE PHONE. LIMITATIONS: A. USES LED BOARD. B. UNABLE TO DISPLAY AUDIO AND VIDEO. C. LIMITED NUMBER OF CHARACTER.

3. DESIGN AND IMPLEMENTATION OF DIGITAL NOTICE BOARD USING POWER LINE COMMUNICATION.

[3] REFERENCE NO 3. THE PAPER PROPOSES ONE SUCH APPLICATION FOR AUTOMATING AN EDUCATIONAL INSTITUTION BY REPLACING MANUAL NOTICE BOARDS OR CIRCULARS BY DIGITAL NOTICE BOARDS. WITH A CENTRALIZED DATABASE, FREQUENT UPDATING IS EASILY POSSIBLE. THE SYSTEM USES EXISTING POWER LINES TO SEND THE DATA TO A SPECIAL NODE OR TO BROADCAST TO VARIOUS POWER LINE NODES. THE ADDRESS IS ASSIGNED TO EACH RECEIVER AND IT RESPONSE BASED ON THEIR APPROPRIATE COMMANDS. LIMITATIONS: A. LIMITED NUMBER OF CHARACTER. B. UNABLE TO DISPLAY AUDIO AND VIDEO. C. NEED POWER LINE COMMUNICATION.

III. WRITE DOWN YOUR STUDIES AND FINDINGS(PROPOSED WORK)

This will be 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 embedded devices. This will be can send the information by SMS and thus update the LED display accordingly. As

engineers main aim is to make life simple with help of technology, this is one step to simplify real time noticing.

System will work like when the user wants to display or update the notice board, the user has to send the message from his mobile defining the message 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 read the message form serial port and verify for the password, if the pass word is correct then it will start displaying the messages in the display system.

The messages are displayed on the LED display. The prototype of the GSM based display toolkit has facilities to be integrated with a display board thus making it truly mobile. The toolkit accepts the SMS, stores it, validates it and then displays it in the led module. The SMS is deleted from the SIM each time it is read, thus making room for the next SMS. The major constraints incorporated are the use of *message@ as the termination character of the SMS and the display of one SMS as a time. The limitations can be removed by the use of higher end microcontrollers and extended RAM.

The prototype can be implemented using commercial display boards. The use of Embedded System in Communication has given rise to many interesting applications that ensures comfort and

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safety to human life. GSM technology is one of the new technologies in the embedded field to make the communication between microcontroller and mobile.

Now every embedded system is used to communicate with other system using GSM and GPRS technology, in this system the MODEM is used to access the message sent by the user to display on notice board. This system has many important applications and can be used to update the remote notice board from far off places using GSM MODEM by sending SMS between the mobile and the embedded devices (microcontroller **89c51).This remote control of notice board is** possible through embedded system. The microcontroller is interfaced with GSM Modem in mobile Phone via MAX232level converter.

The microcontroller system is designed to allow easy use of a mobile Phone to update the notice board at any far location. Using a mobile Phone the development of the notice board is being carried out using SMS, this will update the notice board with the help of the microcontroller modules attached to it, which provides the moving message displayed on the LED using 89c51. The numbers of notice boards are connected in

IOT to get the status of the notice boards automatically to the cellular device.

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IV. RESULTS AND DISCUSSION(IF ANY)

Nowadays every advertisement is going to be digital .The big shops and shopping centers are using the digital moving displays now. In Railway station and bus stands everything that is ticket information, plat form number etc is displaying in digital moving display. But in these displays if they want to change the message or style they have to go there and connect the display to PC or LAPTOP.

Suppose the same message if the person want to display in main centers of the cities, means he has to go there with laptop and change the message by connecting into PC. This system is also useful mainly for police or army. i.e. displays will be connected to all the main centers in city if they want to display messages about something crucial within 5 minute, which they cannot. So keeping this in mind a new display system which can be accessed remotely, using the GSM technology to make the communication between microcontroller and mobile was designed.

V.

Thewebbasedwirelessnoticeboardhardwarekitisasshowninthebelowfigurewhichcanbeimplementedindailylifeand canbemademoreeyeappealingbymaking moredesignchanges.

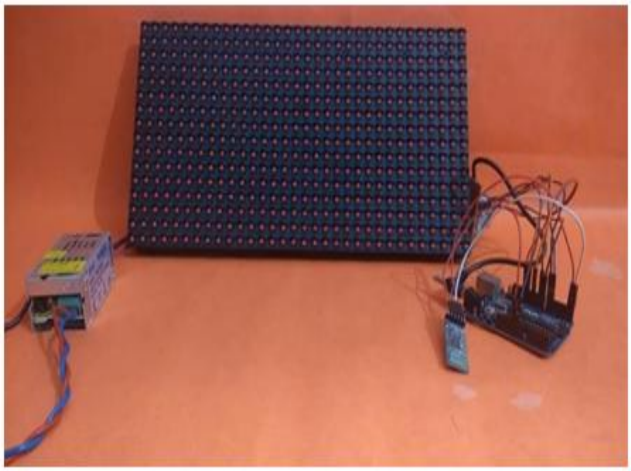

Fig9.1WebBasedNoticeBoardHardware

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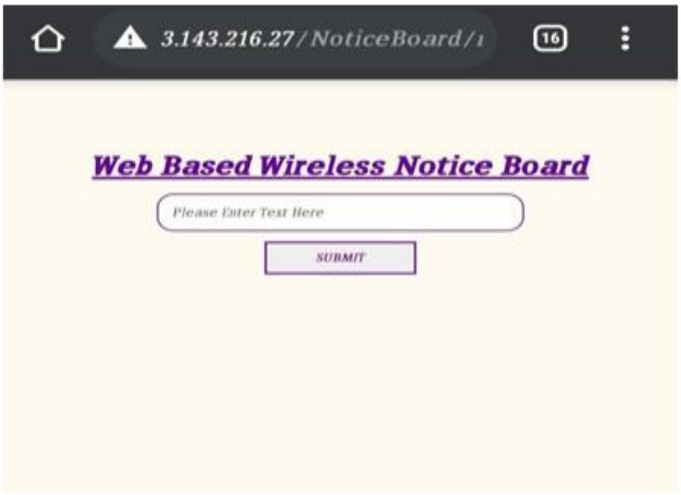
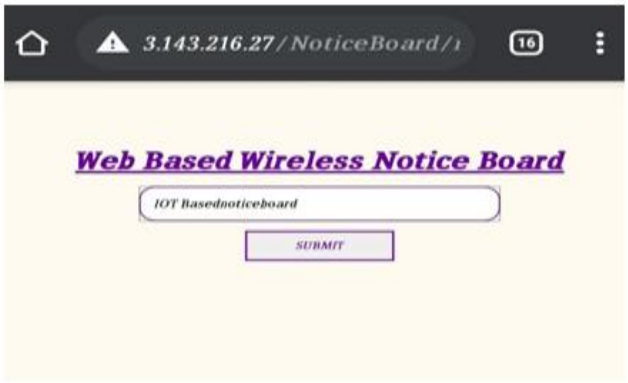


Fig9.2 Webpageto enterthemessage

The result obtained by sending a message through the web page so that it can bedisplayedon the led dot matrix display.

OUTPUT:



VI. Fig9.3Messagethroughwebpage

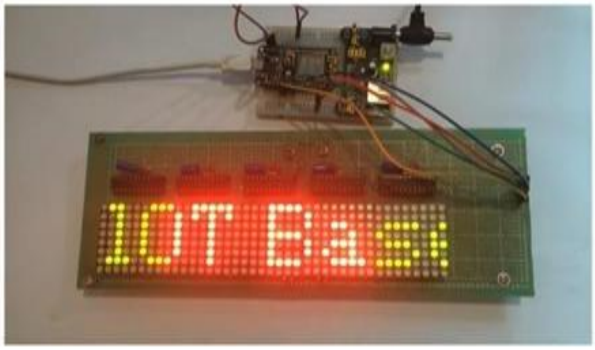


Fig9.4Messagedisplayonled

Thus, the message can be sent from anywhere and it can be displayed in the noticeboard as it is connected through the internet as long as there is a suitable connectionandno interruption in thenetwork.

I. CONCLUSION

Conclusion:

- We can use the project in college Notice Board, a professor can send messageforthe immediategathering ofstudents at thedepartment.
- Itcan beusedon highways fortrafficcontrol, liketraffic ononeside oftheroadmay beblocked in viewof theVVIPmovement or jamahead.

FutureScope:

- Temperature and time (RTC) display during periods when no messages are tobedisplayed.
- Storingamessageinitially anddisplayingiton therequiredtime.

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