

IOT Based Graphical Notice Board Using Raspberry-Pi

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Abstract: Notice board may be a primary issue in any institution/organization or service places like bus stations, railway stations and parks. However sticking out numerous notices daily may be a troublesome method. The bulletin board may be a common show for effective mode of providing data to the individuals, however this is often rough for change the messages instantly. This project deals regarding a sophisticated sophisticated wireless bulletin board. This method is increased to show the newest data through associate humanoid application of sensible phones or pill. Another issue is added during this system- we will show text information and graphical information additionally. This may create our system additional realistic and engaging.

IndexTerms – Raspberry Pi, Embedded system, IOT, LCD, python.

I. INTRODUCTION

Many new communication technologies are developed within the last number of decades. Sharing info is that the main slogan of any communication technology. Excluding sharing info, technology has evolved in such some way that, the desktops and electronic appliances square measure accessed remotely. In our day-today life, we tend to square measure exploitation several notice boards in home, workplace and public Places like flying field, bus stands, hospitals etc. For our comfort and convenience. Communication technology helps US to exchange Information and additionally permits observance and dominant the machines from remote locations. This dominant is feasible with wired or wireless communication. During this world everybody desires a comfort living life. In today's world of connectedness, people are becoming at home with quick access to info. Whether or not it's through the web, television, individuals need to learn and Up-to date with the newest events happening round the world. Wired network association like LAN has several limitations depending on the necessity and kind of association. Currently a day's individuals like wireless association as a result of they will act with individuals easily and it need less time. Notice Board is employed in numerous institutes to show notices and these boards square measure managed manually. It's an extended method to place up notices on the board. This wastes heaps of resources like paper, printer ink, man power and additionally loss of your time. During this paper we tend to have planned a system which is able to modify individuals to wirelessly transmit notices on board exploitation Wi-Fi. Here we've got proposed a system by that solely licensed person will accesses the board. It need less time thanks to quick knowledge transmission through Wi-Fi. Less value and save the resources like paper. The table 1 summarizes the key variations between the 3 short vary wireless technologies. Wi-Fi provides higher knowledge rates for multimedia system access as compared to each Zigbee and Bluetooth that provides lower knowledge transfer rates. Zigbee and Bluetooth square measure supposed for communication (about 10m), whereas Wi-Fi and Zigbee is designed for WLAN regarding 100m.

II. OBJECTIVES

The main objective is style Associate in nursing automatic, self enabled extremely reliable electronic board. A show connected to a server system ought to ceaselessly listen for the incoming calls from consumer or user method it and show it on LCD screen. Message displayed ought to be updated whenever the user sends new information. Solely genuine folks ought to be able to access the server. User ought to get Associate in nursing update whenever the information is displayed on the monitor.

III. LITERATURE REVIEW

It is a tedious method to place up notices on the bulletin board. This ends up in wastage of heaps of resources like paper, printer ink, man power and additionally loss of your time. during this paper we've got proposed such a system that allows individuals to wirelessly transmit notices on bulletin board mistreatment Wi-Fi. Here solely the authenticated person will handle the bulletin board. This system needs less time because of quick knowledge transmission through Wi-Fi, less development value and helps in saving the resources like paper etc.

The GSM based mostly Digital bulletin board was terribly difficult to style. it absolutely was pricey as compare to wireless local area network based mostly notice board. In GSM digital bulletin board a SIM card was recommended to transmit the information (Notice), thus that every notice was indictable to send. additionally an extra issue is, to transmit the video was virtually close to not possible therefore we have a tendency to are here with our thought with terribly famous/latest technology that is wireless local area network.

IV. PROPOSED SYSTEM

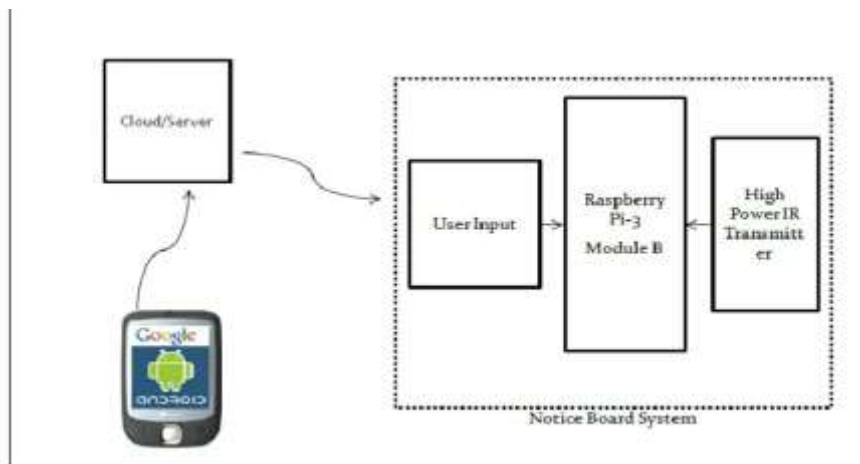


Fig. 1: System Architecture

The planned system includes however our project is made around ARM controller raspberry-pi that is heart of the system. show is obtained on monitor. A Wi-Fi is employed for Data transmission. At any nowadays anyplace we are able to add or re- move or alter the text consistent with our necessities. The document to be displayed on bulletin board are often of any format like .docx or .pdf file. The fascinating a part of our project is we are able to even show pictures and clips/videos on the screen moreover as we are able to set timer for individual notice or video's which may be enabled or disabled consistent with requirements of licensed user.

We have used putty as associate interface of this project. Putty could be a free and open supply terminal emulator; serial console and network file transfer application. It supports several network protocols that embody SCP, SSH, Telnet, rlogin, and raw socket affiliation. It may hook up with a serial port. The name putty has no definitive which means. By using putty we tend to uploaded/edited our secret writing files (HAML) into raspberry-pi. we've got used wireless local area network technology in our project, as a result of currently days this technology has unfold at terribly large scale, user friendly, simple to know. We can connect any good device over this network.

IV. RESULTS

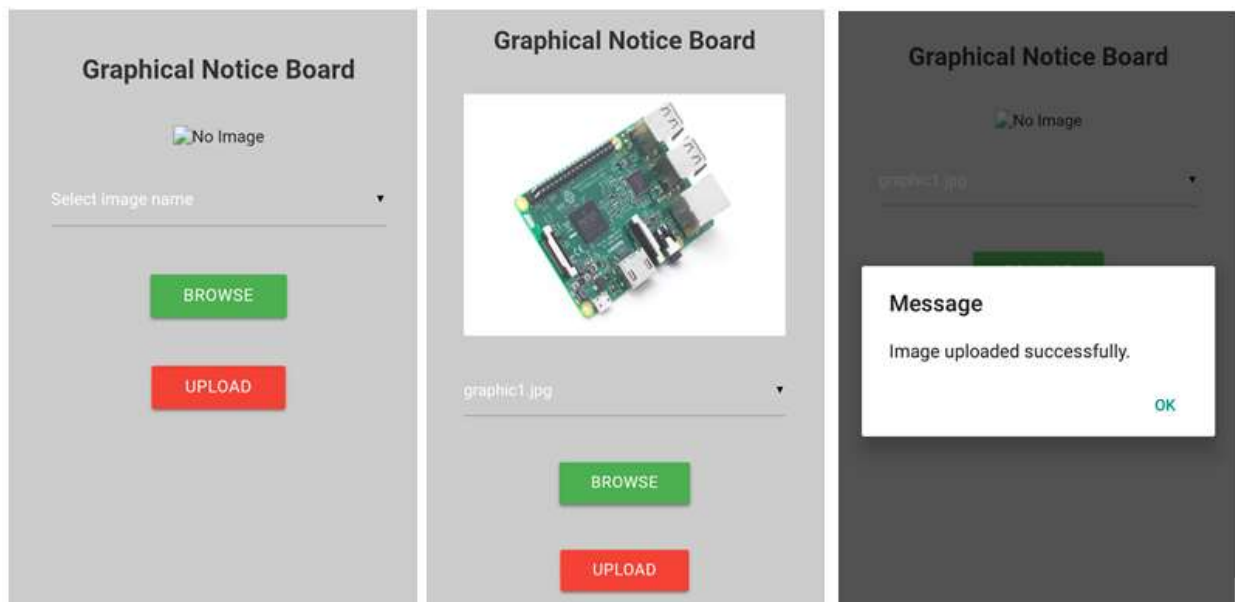


Fig2.Expetimental Results

V. CONCLUSION

As the world is moving towards automation, so in this world if we want to do some changes in the previously used system we have to use the new techniques. Wireless process provides fast broadcast over extended range communication and due to wild broadcast resources and time is saved. Information can be shown from remote location. User authentication is provided. Multimedia data can be seen whenever we want to see. Thus raspberry-pi actuality a small yet controlling device can work resourcefully in digital notice board associated with software's. Hence Web server can provide user with real time actual data which can be used application.

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