Digital Notice Board Using IOT

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Abstract : Bulletin board is vital factor in any school or establishment and jutting numerous notices on a daily basis may be a feverish task. additionally to indicate all the notices on a little piece of paper is tough. during this paper, we have a tendency to square measure presenting a concept of digital notice board which is able to be simple to control and additionally support medical aid of Republic of India. Digital bulletin board are going to be interactive. for creating show interactive we are going to use raspberry pi. solely approved users like workers |office |staff} and teaching staff will place the notices or will modify the recent notices. additionally we have a tendency to square measure aiming to use mic for speech to text conversion which is able to facilitate to require input from user(student). wireless fidelity module can use for knowledge transmission which is able to be connected to raspberry pi. Here, we are going to use wireless system..

I. INTRODUCTION

In the today's world of connectedness, peoples have become at home with easy accessibility to the knowledge. during this world everybody wants a relax living life. Man has researched numerous technology for his sake of life. whether or not it's through the net or tv, individuals wish to grasp all the items and up-to-date with the newest events happening round the world , Wired network affiliations like LAN has several range of limitations counting on the requirement and kind of connection. the concept is to create a wise bulletin board mistreatment iot. conception of Project revolve around creating a wise bulletin board on that notices are often sent wirelessly. Project wants a Raspberry pi, HDMI, camera, microphone. Firstly, the user are going to be ready to read general notices, checking out notices, etc. If the user desires some personal knowledge or he/she desires to look at notices associated with them then they need to log in mistreatment QR code which is able to get sent in person on their email ID, mobile phones from school or institute. Once authentication is completed mistreatment QR code the user will access any data mistreatment voice commands.Traditionally used notice boards square measure current notice boards that have a great deal of disadvantages in themselves like use of huge quantity of paper work, additionally involvement of peons for displaying notices. The project's final aim is shopper convenience and time potency. This goal are often achieved by employing a digitized bulletin board enforced mistreatment Raspberry pi. The bulletin board won't solely be digitized however additionally are going to be voice motor-assisted. this may migrate the recent system to new machine-controlled bulletin board. The user will access numerous notices mistreatment voice commands. additional a lot of, the matter of displaying notices daily won't be feverish as notices are often sent from anyplace. Also, the employment of paper work can get eliminated and also the bulletin board are going to be a lot of convenient and user friendly. mistreatment digital bulletin board this whole method are often simplified and created a lot of easy. The remaining sections of this paper square measure organized as follows as: Section a pair of provides a quick connected work. Section three describes the methodology with Random forest machine learning rule. Section four describes the experimental results and discussion. we have a tendency to gift our conclusions in Section five

II. RELATED WORK

Literature Survey of Wireless bulletin board mistreatment Raspberry Pi (IJSRD-2017) This project is made on ARM controller raspberry-pi(a little computer) that is that the heart of the system. A show is obtained on the LCD. A wireless fidelity is employed for knowledge transmission. the nice a part of this project is it will show numerous knowledge and files on the screen further because it will set the timer for individual notice or video's which may be enabled or disabled in line with requirements of the approved user(office employees or teaching staff).[4]

Smart Notice Board:
In this paper, a GSM primarily based good bulletin board is developed . It includes 2 major units. the primary unit may be a portable. Another unit is that the management unit. The management unit contains a display(where notice can display), Arduino board, and also the GSM module. The management unit can placed in several places. once ever any
information or message has got to be show on screen the user will send the messages as AN sms to regulate unit. For causation messages to the show user has got to be use the mobile handset.[3]

Implementation of voice recognition system mistreatment mic (ASCII):
The aim of this analysis paper was to illustrate the implementation of a Voice Command System(speech to text conversion). this method works on the first input of the user voice. when taking voice commands as AN input, they'll ready to convert it to text employing a speech to text convertor. The text created was used for question process and finding relevant information. once the knowledge was fetched, it'll then born-again to speech using speech to text convertor and also the relevant output to the user can given[6].

Exploring conception of QR authentication and Its advantages in Digital Education System (ICACCI-2016):
This technical paper relies on conception of the Digital Authentication mistreatment QR Code within the Digital Education

System. the aim of paper to produce an improved answer to Digital Security. This paper presents a epitome for digital document security specially. It is system which is able to store the record of any entity and generates the QR Code for the same. The generated QR code then used for checking either 1:1 or 1: N matching. The main purpose of this paper was to create a system that authenticates users.[5]

smart bulletin board mistreatment Raspberry PI (IRJET-2016)
This project aimed that a user sends a notice to Digital Monitor from AN Android application(app) supported Raspberry Pi. bulletin board has been recalled at the primary. within the second part, AN application has been developed supported the Android frame work. A wireless fidelity module is used for knowledge transmission. The authenticate user will add or take away or alter the text in line with their requirement. At transmitter authorized laptop is employed for causation notices. At receiving finish wireless fidelity is there. The data can received from the authenticated user.[1]

III. METHODOLOGY

T he aimed system includes however we will be mistreatment numerous techniques to make an improved bulletin board. Earlier notice board was simply an easy show of notice however the bulletin board we have a tendency to square measure making are going to be interactive. In this project, we are going to use Raspberry Pi for making our show as interactive. We will use the mic to require a primary input. To take input voice through the electro-acoustic transducer, we will do speech to text conversion. If there's an excessive amount of noise and machine square measure unable to induce input properly from the mic, then there'll be a secondary data input device i.e. synaptic(optional).For communication between Raspberry Pi and main machine we are going to be mistreatment the client server model. There would be a portal from that college will be ready to transfer any notice any time. to create the system safer there would be solely internal network i.e. LAN affiliation. For student authentication, we are going to use QR authentication. For academics and staff there will be a distinct layout of the notice board. they'll see the student's applied math data on his or her performance by merely giving the voice command. Earlier the digital notice board had restricted choices thanks to the GSM module however in our project, we are going to use a wireless fidelity module which is able to offer USA a lot of options and suppleness. We square measure employing a implementation of speech to text conversion during this paper for taking input from the scholar. If the user desires to see specific knowledge, the system can take voice as input for this purpose

and it'll get born-again into text so we have a tendency to can method the request {and will| and may |and might} offer user appropriate knowledge. General notices will read by the student with none authentication. To see details specific to them, a student will authenticate to themselves with the assistance of QR code authentication.

sofware and hardware tools used:

A. Raspberry pi :The Raspberry Pi may be a small laptop that prices around RS 3000 . Its out there each wherever and can work as a correct microcomputer or are often wont to build a wise devices. The Raspberry Pi Model B+ is that the latest production of Raspberry Pi three that includes a sixty four bit quad core processor run at frequency of 1.4 GigaHz. to require benifits of the improved power management on a Raspberry Pi and supply the higher support for even a lot of powerful devices on the USB ports, a 2.5 Ampere adapter is usually recommended.

B. HDMI: HDMI is stands for top Denition transmission Interface and is most frequently used HD signal for the transferring each high denition video further as audio over one cable. it's wont to see content on bulletin board from the Raspberry Pi.

C. Display:It is AN device use to visualize content on that. it's out there in numerous sizes depending on the place or space wherever itinstalled, when approval of the notice, it's the show that shows the supposed notice to its user with the assistance of raspberry pi.

D. Microphone: electro-acoustic transducer will wont to take input sound. The sound is detected by electro-acoustic transducer and AN electrical signal can transmittedto Raspberry Pi. Special API is use to convert this analog knowledge into the text thus it will get hold on and manipulate.

E. QR code and Scanner: it's use for authentication functions. a novel qr code will get generated to ascertain the genuine users. A camera is employed for scanning of QR code and also the user can get genuine if he/she exist within the system..

IV. FUTURE SCOPE

The Scope of our project is to offer ease to show notices. With Digital Notice Board we have a tendency to will merely update, take away or will enter notices while not wasting an excessive amount of your time. student may see data associated with there alternative. For example his performance, any event reminder or kt results, etc during which he/she participated. Even academics will access this bulletin board and see students data and performance. The performance of students can get displayed in text or a visualized format with the assistance of knowledge mining and also the knowledge visualisation. Notice board won't solely get employed in the sector of colleges or institutes however additionally in alternative sectors like business organizations, banking and alternative places too.

V. CONCLUSION

In today's date the planet is migrating towards the automation of things, thus within the world, if we want to try to to some style of changes within the antecedently used system we've got to use the new techniques. The wireless operation provides the quick transmission with the massive range for communication. It saves resources further as time. knowledge are often sent from a remote location. User's authentication is provided. In earlier versions of digital notice board, it were mistreatment GSM, in that there was the restrictions of messages however in our project transmission knowledge are often store on a chip or on South Dakota card.

VI. **Output**

ADMIN LOGIN PAGE

ADMIN CONTROLS

ADMIN ENTRY PAGE

QR LOGIN

USER SIDE UI (PUBLIC NOTICE)

USER PERSONAL DETAILS ON COMMAND (PRIVATE NOTICE)

VII. References

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