



# ELECTRONIC NOTICE BOARD WITH VOICE BOT

<sup>1</sup>Prof. Shahida Begum K, <sup>2</sup>Ms. Aishwarya H, <sup>3</sup>Ms. Charani P, <sup>4</sup>Ms. J Sahana, <sup>5</sup>Ms. Rachana A R

<sup>1</sup>M.Tech(Ph.D), <sup>2</sup>B.E, <sup>3</sup>B.E, <sup>4</sup>B.E, <sup>5</sup>B.E

<sup>1</sup>Computer Science and Engineering,

<sup>1</sup>Proudadevaraya Institute of technology, Hosapete, India

**Abstract:** Robots are increasingly being used in the hospitality business, with applications ranging from artificially intelligent chat-bots aimed to aid with customer service to robot assistants. Part of the reason why robots have become a prominent technological trend in the hospitality business is that concepts like automation and self-service are becoming increasingly important in the customer experience. The usage of robots has the potential to enhance speed, cost-effectiveness, and even accuracy. Chat-bots, for example, enable a hotel or travel firm to give 24/7 help via online chat or instant messaging systems, even when staff is absent, resulting in incredibly fast response times. Meanwhile, a robot employed at check-in can expedite the entire procedure.

**Keywords:** LCD screen, WI-FI module, Bluetooth module, Temperature sensor, telegram.

## I. Introduction

Robotics can play a major role in today's day-to-day life, as it reduces human labor, efforts, time and errors due to human negligence. In the near future, robots will perform services and assistive tasks, and be extensively used as helpers in activities of daily living. To achieve acceptance of robots, their design should be planned carefully according to their role. Receptionist is a job that can potentially be performed by conversational agents as well as robots. Computers are becoming indispensable nowadays, and intelligent robots will make a chance for us to use a computer in daily life.

Notice boards are an essential information gathering system in our life, and nowadays a separate person is needed to stick that information on the notice board. The implementation of a digital notice board is an advanced means of passing notices around in the world in a much easier and efficient way. Raspberry Pi is the Heart of the system, and a monitor is interfaced with it to display information in the form of text, image and pdf. The sender can send messages anywhere in the world, and there is no range limitation for the successful exchange of information.

## II. Literature Survey

### 2.1 The effect of multiple robot interaction on human-robot interaction

This paper makes a speciality of the results of a couple of robotic interplay on human behaviors. It defines four factors associated with human interaction such as human favorability, attention shift, human-friendly knowledge sharing, and indirect realization of agent status. The experiments are designed to verify these factors, of which the effect and result are discussed. The paper was presented at the Human-Robot Interaction Research Center, Korea Advanced Institute of Science and Technology, Daejeon, 305-701, Korea, and added to IEEE Xplore on 19 February 2013.

### 2.2 Digital notice board using Raspberry Pi

This paper proposes a remotely send notice to Digital Monitor from an Android application based on Raspberry Pi card. The Notice Board has been recalled in the first stage and an application has been developed based on the Android system. A Wi-Fi is used for Data transmission. At transmitter, an authorized PC is used for sending notices. At receiving end, Wi-Fi is connected to Raspberry Pi.

When an authorized user sends a notice from their system, it is received by receiver. Wireless is a popular technology that allows an electronic device to exchange data wirelessly over a computer network, including high speed wireless connections. The data is received from authenticated user.

III. Methodology

3.1 LCD Display

The primary objective of the "electronic notice board using voice bot" is to display the most recent changes on an LCD screen and to respond to user inquiries.

3.2 College Map

Through a Telegram bot, a college map can be shared. Someone could acquire a map of PDIT College by texting "College map" in a Telegram bot.

3.3 Notice Display

First, an authorized individual will send a message to a Telegram bot, and that message will be shown instantly on an LCD panel.

3.4 Queries

Over Bluetooth, a user may ask questions, and our bot will respond over the speaker. A user can ask questions, and our bot will answer them through the speaker using questions that have been pre-programmed in the system.

3.5 Principal Appointment

The camera will scan a picture and send it to the principal via a Telegram bot. Through that photo, the principle can decide whether the person must enter or not; if the principal responds positively, LCD will show principal given permission, at which point the person can go meet; if the principal responds negatively, LCD will show principal not given permission.

IV. Block Diagram

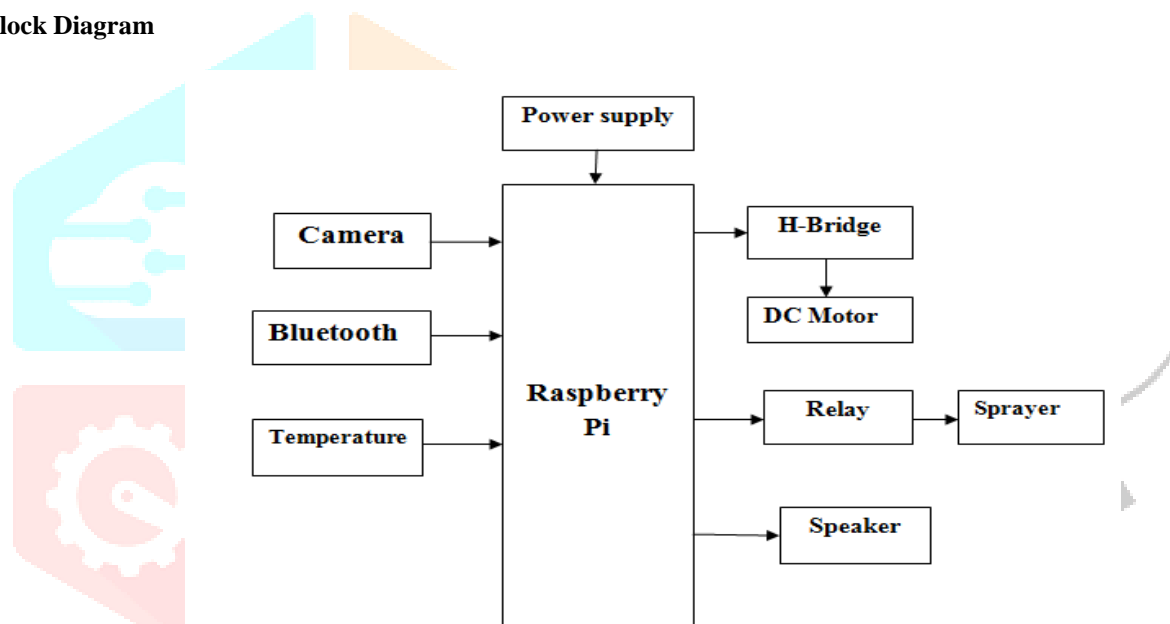


Fig 1: Internal Design

V. Results and Discussion

5.1 LCD Display



Fig 2: LCD Board

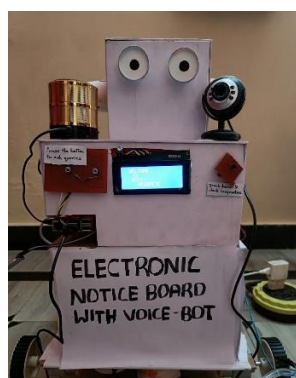


Fig 3: Model



Fig 4: Telegram Bot to display Message

We used a 20\*4 LCD display. Different Notices will be displayed periodically by authorized person using telegram Bot.

### 5.2 College Map

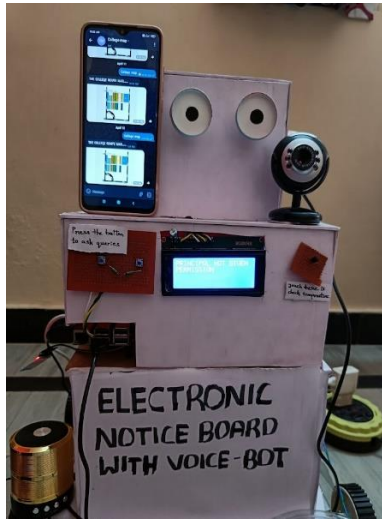


Fig 5: Internal College Map



Fig 6: Telegram Bot to share Map

New visitors to college are assisted with help of college map and it is shared through the telegram bot.

### 5.3 Queries



Fig 7: Speakers



Fig 8: Connect Bluetooth

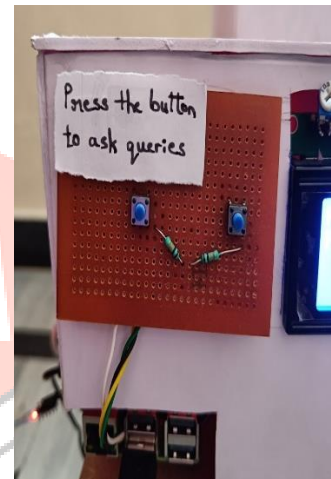


Fig 9: Control Switch

Visitors can ask queries and get answers through dedicated speakers. For this, we have used Bluetooth to connect the bot and the user.

### 5.4 Principal Permission



Fig 10: Web Cam

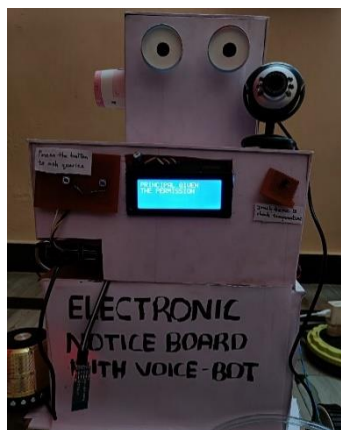


Fig 11: Permission given



Fig 12: Permission not given



**Fig 13: Telegram bot to recognize person**



**Fig 14: Temperature sensor**



**Fig 15: Hand Sanitizer**

Through webcam, face recognition is done using the Haar cascade algorithm, and the recognised face is sent to the telegram bot for the principal, He/She will send his response to meet this person or reject the meeting with this person.

## VI. Conclusion

The proposed system is an innovative solution that displays real-time information and answers users' questions. It uses Telegram bot technology and voice bot programming to make it easier for users to interact with the system and get the information they need quickly and accurately. The system can be implemented using readily available hardware and software components, making it an affordable and accessible solution for education institutions. It provides faster transfer of information and are easy to install and maintain, providing an efficient manner of showing messages at the Notice Board and additionally getting car notifications the use of Wireless Technology. It additionally presents consumer to effortlessly get hold of the essential facts or message.

## References

- [1]. C. F. DiSalvo, F. Gemperle, J. Forlizzi, and S. Kiesler, "All Robots Are Not Created Equal: The Design and Perception of Humanoid Robot Heads," in Proceedings of the 4th Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques, New York, NY, USA, 2002, pp. 321–326.
- [2]. D. Ribeiro, The Brazilian People: The Formation and Meaning of Brazil. Gainesville: University Press of Florida, 2000.
- [3]. R. Gockley, A. Bruce, J. Forlizzi, M. Michalowski, A. Mundell, S. Rosenthal, B. Sellner, R. Simmons, K. Snipes, A. Schultz, and J. Wang, "Designing robots for long-term social interaction," in 2005 IEEE/RSJ International Conference on Intelligent Robots and Systems, 2005. (IROS 2005), 2005, pp. 1338–1343.