# Web Based College Enquiry Chatbot

**Ms. M Kirubha[1], Pavithra C V[2], Rakesh R[3], Vignesh C[4]**
[1]Assistant Professor, Dept of Computer Science and Engineering
[3, 3, 4]Dept of Computer Science and Engineering
[1, 2, 3, 4] Sri Ramakrishna Institute of Technology, Coimbatore, Tamilnadu, India

*Abstract- A chatbotenables the humans to have conversation with the machine. The machine has an embedded knowledge to identify the sentence and makes a decision by itself as to answer a question. The response keyword is matching the input sentence from the user. The college enquiry chatbot has the capacity to make friendly conversations and respond with the course and faculty details, answer the frequently asked questions and gives the timings, address, contacts, and information of the departments. A chatbot is software that is used to participate in conversations with humans.The implementation of such systems can be done by using the following mechanisms keyword matching, string similarity or complex natural language processing techniques. More sophisticated chatbot could learn from the user input. Nowadays chat bots are used widely in web applications in order to provide help or information when it is asked by the users. In the future, NLP can be implemented to understand what a user is asking and give solutions to his problems. Natural Language Processing is a field of computer science sub- branch artificial intelligence which is concerned with conversations between computer and humans.*

*Keywords*- chatbot, keyword, response, enquiry, college, implementation.

## I. INTRODUCTION

College Enquiry Chat bot is a simple web application which aims to provide the information regarding college and its faculty members. The information can be in the form of teacher's details or student's CGPA or various activities in the college. After some improvements and some additions this project can be used by a working site of the college."Eliza" and "Cleverbot" are some examples of web applications which have been created in the past. Like "Eliza", the responses of the college enquiry chatbot are programmed up to some extent. This is because of the fact that it is a simple bot which answers the queries regarding the college and academics. Since the curriculum of the college keeps on changing, there has to be database which can be edited and upgraded from time to time which can keep the users updated.To design and develop Smart College Enquiry Chatbot using the knowledgeable database and interpreter which will be employed as a function of pattern matching. Chatbot allows us

to have conversational chat to accomplish our tasks for instance, shopping for a shirt, book an appointment with doctor and order our meals and many other tasks. Some chatbot has artificial intelligence and machine learning behind them, and others have a database of information and automated responses. Most students spends time on messaging software for communication, such as SMS (texting), WeChat, SnapChat, Kik, Telegram, WhatsApp, Slack, and many more. The outdated systems are difficult to access by the students.Chatbot will allow professors to engage with students in a communication medium that is comfortable and convenient for everyone to use. The Chatbot technology can provide the ease and human like interactions to students, parents, and faculty. This paper highlights the applications of chatbot, platforms to design a chatbot and the areas where the chatbot can be implemented at colleges.

## II. METHODOLOGY

There are many ways that can be used for the implementation of chatbot such as keyword matching, string similarity or complex natural language processing techniques. There are two modules for the complete view of a chatbot 1) Webpage development and 2) Chatbot Implementation. Since it is a college enquiry chatbot a webpage is to be created which helps the users to understand and know things about the college well. The chatbot helps the users to know the information there require quickly and easily instead of going through the complete details of the college.

### 1. Webpage development

This part involves the creation of college webpage which consists of details about the college such as staff details, placement, transport, academics, facilities, research, news, and events, other activities, etc. This webpage helps the users to grab information about the college in depth.

### 2. Chatbot Implementation

This is the most important step to be done which involves the entire implementation process of the chatbot. The user raises a query in the chatbot and the raised question is compared with the keywords, and the one that matches the

query gives the corresponding answers. The keywords and their corresponding answers are programmed up to some extent. Hence there will be an appropriate answer given as a response for the queries asked by the users.

### III. MODELING AND ANALYSIS

In this part the system architecture and the processes that are involved in the complete implementation of the college enquiry chatbot is shown in the figure 1.
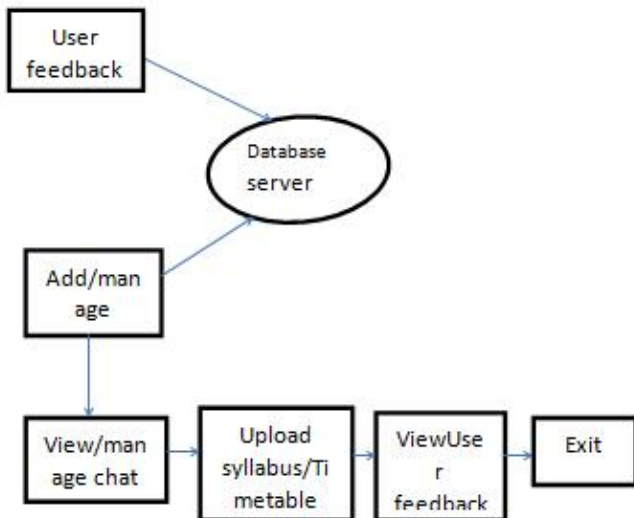


**Figure 1:**System architecture of chatbot

The system architecture of the college enquiry chatbotis explained in detail in the following steps:1) The user has to register into the application 2) The details of the user gets saved in the database 3) The admin can add/manage course, view chat, upload syllabus 4) The results for the queries raised by the user are shown in the forum.

### IV. RESULTS AND DISCUSSION

The following is the output on implementation of college enquiry chatbot.

**College webpage results:**

**Figure 2** represents the title page of the college webpage where the anything from the menu can be viewed. The menu involves home page, admission details, placement details, contact details and feedback.



**Figure 2:**Title Page

**Figure 3** gives an introduction of the college along with its mission and vision.



**Figure 3:** Introductory page

**Figure 4** gives the complete information of placement held by the college and the objectives of the college in placement. This image also talks about the industry tie up that the college has.



**Figure 4**: Placement detail page

**Figure 4** gives the address and the Google map link to locate the place easily without any chaos.
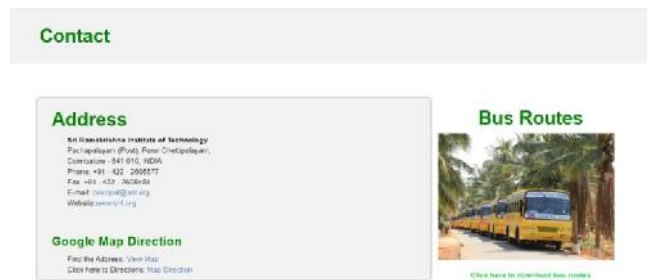


**Figure 5:** Transport details page

**College enquiry chatbot results:**

**Figure 6 –** In this figure the chatbot has responded on the query raised by the user. The query is about the courses available in B.E and chatbot has given the appropriate response to the user by providing the list of courses available in the college.
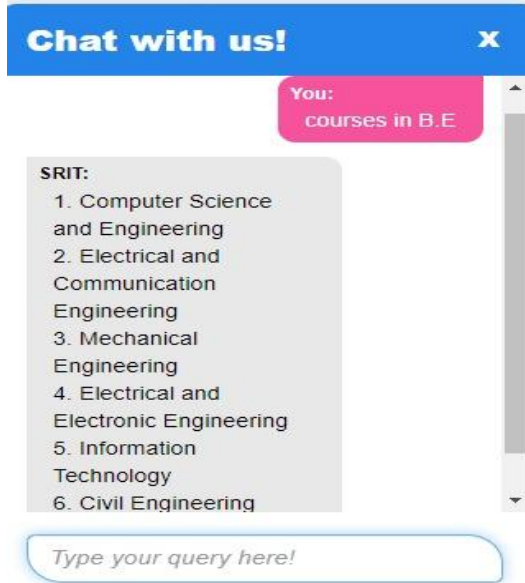


**Figure 6:** Course details given by chatbot

**Figure 7, 8, 9** shows the fees details of the college provided by the chatbot. The user enters fees and the list gets displayed and on selecting one of it the corresponding fee structure gets displayed to theuser.
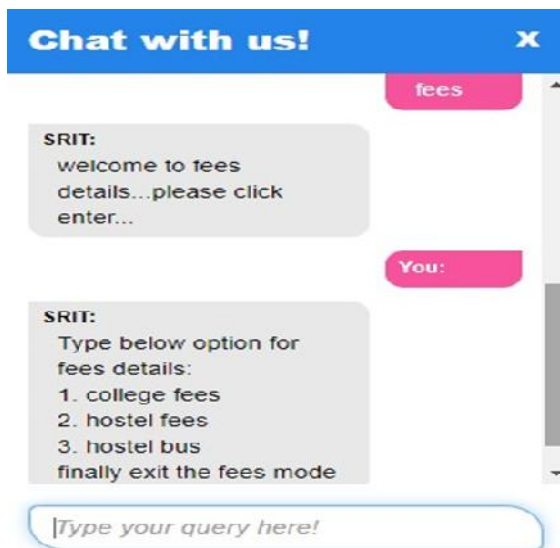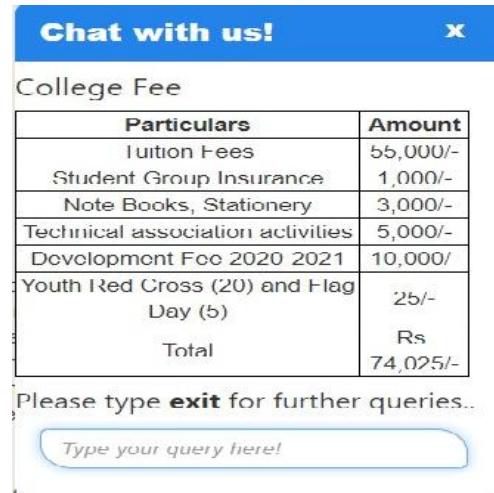


**Figure 7:** Fees list



**Figure 8:** CollegeFees



**Figure 9:** Hostel fees

**Figure 10** gives the timing of the hostel outing bus which will be helpful for the hostel students.



**Figure 10:** Hostel outing busdetails

**Figure 11** shows the feedback form which will be filled by the user for any further improvements in the chatbot by entering their opinion on the chatbot.



**Figure 11:**Chatbot Feedback Form

### V. CONCLUSION

The college chatbot helps the students to spend less amount of time with the phones, social media and on messengers. Their messenger and apps should be provided with the additional capability rather them forcing to register with the apps and websites for the required information. A chatbot is implemented with a human touch to feel exactly like a person-to-person communication. Information can be fetched so quickly without thinking about the keywords or queries. The future scope of chatbot lies in the implementation of chatbot in learning. Distance Education can be revolutionized with the use of artificial intelligence based chatbot tutor which does not involve any human faults.To improve the current functionalities of College Enquiry Chatbot, in the future, the scope of the chatbot can be increased by inserting data for all the departments, training the bot with varied data, testing it on live website, and based on that feedback inserting more training data to the bot. Some new features which can be added to the bot are 1) speech recognition feature through which students can ask their queries verbally and get the answers from the bot, 2) integration with multiple channels such as phone call, SMS, and various social media platforms like Skype, Facebook and Twitter, 3) handling context aware and interactive queries in which bot will be aware of the context of an ongoing conversation with a student, 4) integration with services such as password reset and course 46 enrollments, and 5) adding a capability for the bot to perform analytics based on user's sentiment based on which the bot can be re-trained on human emotions so that more empathy can be added to the bot.

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