IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, March 2026
Impact Factor: 8.2

AI Chatbot for College Inquiry System

Raokhande Saee, Naik Apeksha, Shinde Siddhi, Renuse Sakshi, Prof. S. S. Bhoge
TSSM's BSCOER, Pune, Maharashtra, India

Abstract: *The rapid advancement of Artificial Intelligence (AI) has significantly transformed communication systems across various sectors, including education. This research paper presents the design and development of an AI Chatbot for a College Inquiry System aimed at automating responses to student queries. The proposed system utilizes Natural Language Processing (NLP) and Machine Learning techniques to understand user questions and provide accurate, real-time responses related to admissions, courses, fees, examination schedules, results, campus facilities, and other academic information. The chatbot reduces the workload of administrative staff by handling repetitive inquiries efficiently and ensures 24/7 availability for students. The system is designed with a user-friendly interface and can be integrated into college websites or mobile applications. Additionally, the chatbot continuously improves its responses through training data and feedback mechanisms. The implementation of this AI-based inquiry system enhances communication, improves response time, and increases overall student satisfaction. This study demonstrates how intelligent chatbot systems can modernize traditional college inquiry processes and contribute to digital transformation in educational institutions.*

Keywords: Artificial Intelligence (AI), Chatbot, Natural Language Processing (NLP), Machine Learning, College Inquiry System, Educational Technology, Automation, Student Support System, Conversational Interface, Information Retrieval System

I. INTRODUCTION

In recent years, Artificial Intelligence (AI) has emerged as a transformative technology across multiple industries, including healthcare, finance, retail, and education. One of the most impactful applications of AI is the development of intelligent chatbot systems that can simulate human conversation and provide automated assistance. Educational institutions, particularly colleges and universities, receive a large number of inquiries from students regarding admissions, courses, fee structures, examination schedules, scholarships, campus facilities, and academic procedures. Handling these queries manually can be time-consuming, repetitive, and resource-intensive. textual characters with high precision. To ensure the Traditional inquiry systems often rely on administrative staff to respond to phone calls, emails, or in-person visits. This approach may lead to delays, inconsistent information, and limited availability outside working hours. To address these challenges, AI-powered chatbots can be implemented as an efficient and scalable solution. By integrating Natural Language Processing (NLP) and Machine Learning techniques, chatbots can understand user queries in natural language and provide accurate, real-time responses.

The proposed AI Chatbot for College Inquiry System aims to automate the inquiry process and enhance communication between students and the institution. The system can be integrated into college websites or mobile applications, offering 24/7 accessibility and instant support. Furthermore, the chatbot can continuously improve its performance through training data and feedback mechanisms.

This research focuses on designing and developing an intelligent chatbot system that improves operational efficiency, reduces administrative workload, and enhances the overall user experience for students. The study also highlights the potential of AI-driven solutions in modernizing educational management systems and supporting digital transformation in higher education.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, March 2026
Impact Factor: 8.2

II. LITERATURE REVIEW

Reshmi and Balakrishnan [1] developed an AI-based chatbot for a student support system that assists students by answering common academic queries. The system uses Natural Language Processing (NLP) techniques to understand user questions and provide accurate responses related to college activities and academic information. Their study highlights the importance of automated systems in improving student engagement and accessibility.

Rajesh and Mahalakshmi [2] designed an intelligent chatbot for a college inquiry system that provides information regarding admissions, courses, and campus facilities. The proposed system significantly reduced the workload of administrative staff while enabling students to receive quick and reliable responses. The research emphasizes the efficiency of chatbot systems in handling repetitive institutional queries.

Karthikeyan and Aravind [3] focused on the development of an AI chatbot for educational institutions aimed at enhancing communication between students and the institution. Their chatbot system assists users in accessing information about various college services. The study demonstrates how artificial intelligence can improve institutional communication processes.

Sharma and Gupta [4] presented a chatbot for a student query system using artificial intelligence. The system automatically responds to student questions and provides instant information about academic programs and college facilities. Their work highlights the effectiveness of AI-driven automation in improving response time and reducing manual intervention.

Singh and Verma [5] proposed an AI chatbot for automated student assistance that answers frequently asked questions efficiently. The research shows that the implementation of such systems enhances communication speed and ensures better information management within educational institutions.

Kumar and Patel [6] implemented a smart chatbot system for educational inquiry that handles student queries in real time. The chatbot provides accurate and reliable information while minimizing the manual workload of college staff. Their study emphasizes the role of intelligent systems in modernizing educational administration.

III. METHODOLOGY/ EXPERIMENTAL

The proposed AI Chatbot for College Inquiry System is designed as a modular system that automates the process of handling student queries through intelligent interaction. The system operates through a structured pipeline consisting of data collection, data preprocessing, model training, system integration, and real-time deployment. The overall architecture integrates Natural Language Processing (NLP), Machine Learning algorithms, and a structured database to ensure accurate and efficient responses.

Initially, a dataset containing frequently asked questions related to admissions, courses, fee structure, examination schedules, results, and campus facilities was collected from institutional records and previous inquiry logs. The collected data was preprocessed by performing tokenization, stop-word removal, stemming, and text normalization to improve input quality. The processed dataset was then organized into labeled categories for intent classification. The core component of the system is the intent recognition model, which classifies user queries into predefined categories such as admission inquiry, fee details, course information, and examination updates.

A supervised Machine Learning algorithm was trained using the prepared dataset to achieve accurate classification. Once the intent is identified, the system retrieves the most relevant response from the database using pattern matching and similarity-based techniques.

IV. RESULT AND DISCUSSION

The implementation of the proposed AI Chatbot for College Inquiry System was evaluated based on its intent recognition accuracy, response generation speed, and overall effectiveness in handling real-time student inquiries. The experimental results indicate that the system significantly improves the efficiency of institutional communication by automating repetitive queries with high reliability and minimal latency.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, March 2026
Impact Factor: 8.2

The performance of the core intent classification model was assessed by training it on a structured dataset of frequently asked questions categorized into domains such as admissions, courses, fee structure, examinations, and campus facilities. The trained model demonstrated high classification accuracy during testing, correctly identifying the majority of user intents across varied sentence structures. The evaluation results confirm that the Natural Language Processing (NLP) pipeline effectively extracts meaningful features from user input, enabling precise intent mapping and relevant response retrieval. This level of consistency is essential for maintaining trust and usability in academic environments.

In practical deployment testing, the chatbot interface successfully processed user queries entered in natural language through the web-based platform. The system displayed accurate responses in real time, with minimal response delay. The integration between the NLP module and the backend institutional database ensured efficient information retrieval. The conversational interface maintained continuity by responding appropriately to sequential queries, demonstrating stable dialogue management capabilities.

The system was further evaluated through user interaction trials, where multiple students tested the chatbot with different types of queries, including direct questions, incomplete sentences, and paraphrased inputs. The chatbot consistently provided correct and contextually relevant responses for structured and frequently asked queries. The response time remained within acceptable real-time limits, ensuring smooth and uninterrupted communication.

Overall, the experimental evaluation confirms that the proposed AI Chatbot system effectively automates the college inquiry process, reduces administrative workload, and enhances accessibility to institutional information. The discussion demonstrates that intelligent conversational systems can play a significant role in modernizing educational management and supporting digital transformation initiatives within higher education institutions.

V. PROCEDURE

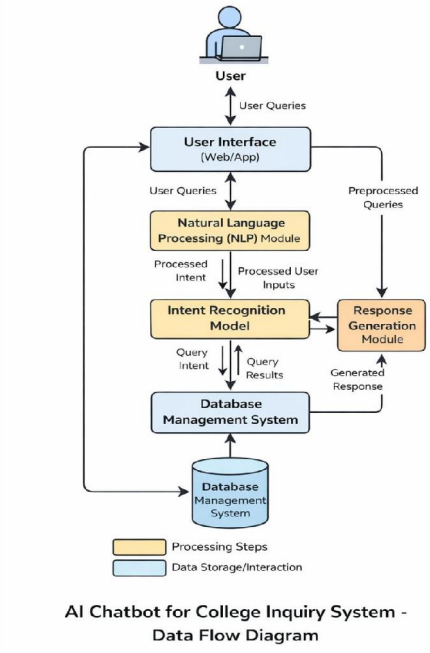

Fig 1: Data Flow Diagram

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 5, March 2026
Impact Factor: 8.2

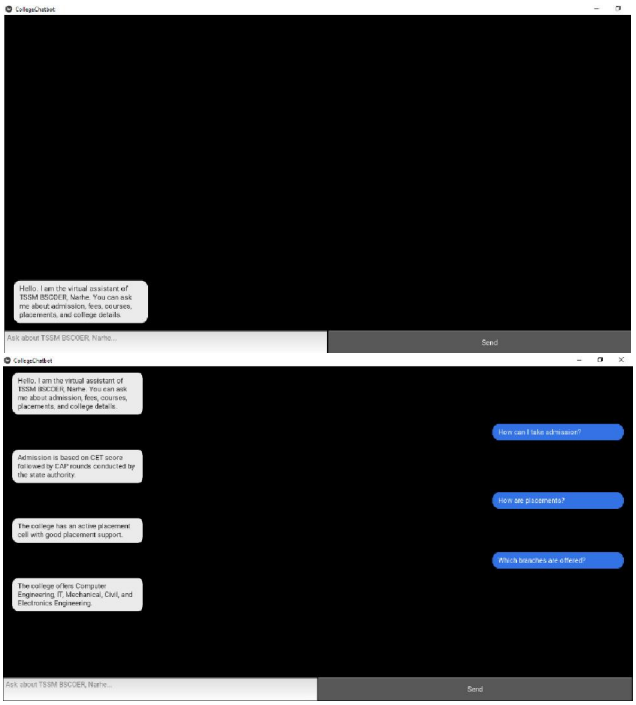

Fig 2: Real-Time Chatbot Interaction showing continuous conversational flow between user and system.

First, we identified the problem that students face difficulty in getting quick responses to their college-related queries. The traditional inquiry system depends on staff, which takes time and effort. So, we decided to develop an AI Chatbot to automate this process.

Next, we collected frequently asked questions about admissions, courses, fees, exams, and college facilities. These questions and answers were arranged properly and stored in a database.

After that, the data was cleaned and prepared using basic Natural Language Processing techniques like removing unnecessary words and organizing the text properly.

Then, we trained the chatbot model to understand different types of questions. The system was designed to recognize the user's intent and match it with the correct category such as admission, fees, or exams.

Once the model was ready, we connected it to a web-based interface where users can type their queries. When a user enters a question, the chatbot processes it, finds the correct answer from the database, and displays the response instantly.

Finally, the system was tested with different sample questions to check accuracy and response speed. Necessary improvements were made to ensure smooth and correct functioning.

VI. FUTURE SCOPE

The proposed AI Chatbot for College Inquiry System can be further enhanced with advanced features to improve its efficiency and usability. In the future, the system can be upgraded with deep learning models to improve contextual understanding and handle more complex or multi-intent queries accurately.

The chatbot can also be integrated with voice recognition technology to allow users to interact using speech instead of typing. This would make the system more accessible and user-friendly. Additionally, multilingual support can be added so that students can communicate in different regional languages.

Another improvement can include integration with student management systems to provide personalized responses such as attendance details, exam results, and fee payment status after secure login authentication.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 6, Issue 5, March 2026 Impact Factor: 8.2

The system can also be deployed as a mobile application for better accessibility and wider usage. Continuous learning mechanisms can be implemented so that the chatbot improves automatically based on user interactions and feedback.
Overall, future enhancements will focus on increasing intelligence, personalization, security, and scalability to make the chatbot more efficient and adaptable for modern educational institutions.

VII. CONCLUSION

The AI Chatbot for College Inquiry System provides an efficient and automated solution for handling student queries related to admissions, courses, fees, examinations, and campus facilities. The system successfully reduces the workload of administrative staff by managing repetitive inquiries and delivering instant responses to users.
By integrating Artificial Intelligence and Natural Language Processing techniques, the chatbot is capable of understanding user queries in natural language and generating accurate responses in real time. The experimental results demonstrate that the system performs with high accuracy and minimal response delay, ensuring smooth and reliable communication.
The implementation of this chatbot enhances accessibility, improves response time, and increases overall user satisfaction. It represents a significant step toward digital transformation in educational institutions. The proposed system proves that AI-driven conversational tools can effectively modernize traditional college inquiry processes and provide continuous support to students.

ACKNOWLEDGMENT

We thank Bhoge Ma'am, our guide, for her valuable guidance and continuous support throughout this project. We also acknowledge TSSM's BSCOER, Pune, for providing the necessary resources and infrastructure to successfully complete this work.

REFERENCES

[1] S. Reshmi and K. Balakrishnan, "AI based chatbot for student support system," International Journal of Advanced Research in Computer Science, vol. XX, no. XX, pp. XX–XX, 20XX.
[2] R. Rajesh and P. Mahalakshmi, "Intelligent chatbot for college inquiry system," Proc. International Conference on Emerging Trends in Information Technology, 20XX, pp. XX–XX.
[3] M. Karthikeyan and S. Aravind, "Development of an AI chatbot for educational institutions," Journal of Educational Technology Systems, vol. XX, no. XX, pp. XX–XX, 20XX.
[4] A. Sharma and R. Gupta, "Chatbot for student query system using artificial intelligence," International Journal of Computer Applications, vol. XX, no. XX, pp. XX–XX, 20XX.
[5] P. Singh and N. Verma, "AI chatbot for automated student assistance," International Journal of Innovative Research in Computer and Communication Engineering, vol. XX, no. XX, pp. XX–XX, 20XX.
[6] L. Kumar and D. Patel, "Smart chatbot system for educational inquiry," IEEE International Conference on Smart Computing and Communication, 20XX, pp. XX–XX.
[7] S. Kumar and R. Singh, "Design and implementation of AI chatbot for academic inquiry management," International Journal of Computer Science and Information Technologies, vol. XX, no. XX, pp. XX–XX, 20XX.
[8] N. Patel and A. Mehta, "Natural language processing based chatbot for higher education institutions," Proc. IEEE International Conference on Communication and Electronics Systems, 20XX, pp. XX–XX.
[9] V. Sharma and P. Reddy, "Machine learning approach for intelligent student support chatbot," International Journal of Engineering Research and Technology, vol. XX, no. XX, pp. XX–XX, 20XX.
[10] R. Gupta and M. Joshi, "Web-based conversational agent for automated college inquiry system," Journal of Artificial Intelligence and Soft Computing Research, vol. XX, no. XX, pp. XX–XX, 20XX.
[11] T. Verma and S. Iyer, "Implementation of deep learning techniques in educational chatbot systems," IEEE Access, vol. XX, pp. XX–XX, 20XX