SriBOT: ML-Enhanced Virtual Assistant for College Information

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Abstract: *The proposed hybrid campus inquiry chat-bot creates a user-friendly interaction by navigating into information related to the institute and is also designed primarily for naive users. The chat-bot integrates a range of advanced features including voice input via microphone, text-to-speech responses with pause and resume controls, button-based quick replies, keyword-driven intent matching, and dynamic content generation embedded with redirection links. Built on a custom dataset derived from the official college website, the system employs NLP techniques such as tokenization, stemming, and lemmatization to enhance query understanding. Through these features, the chat-bot significantly simplifies user interaction, improves accessibility, and offers real-time, accurate assistance, demonstrating its potential as an effective digital support tool for educational environments.*

Keywords: chat-bot, Natural Language Processing (NLP), Artificial Intelligence, Intelligent Agents