College AI Mentor

Ms. Yasmin Rahim Shaikh[1], Ms. Namrata Hemant Bedarkar[2], Ms. Yogita Chetan Rane[3],
Mr. Advait Rajendra Kokane[4], Mr. Rohan Ramdas Khade[5]
Lecturer, Department of Artificial Intelligence and Machine Learning[1]
Student, Department of Artificial Intelligence and Machine Learning[2345]
Mahavir Polytechnic , Nashik, Maharashtra, India

Abstract: *The Polytechnic admission process in Maharashtra involves multiple stages of decision-making, including selection of suitable branches, colleges, and preference filling during CAP rounds. Students often face difficulties due to lack of proper guidance, scattered admission information, complex eligibility criteria, and limited understanding of career opportunities associated with different branches. Manual handling of admission data by institutions further increases the chances of errors, delays, and lack of transparency. To address these challenges, this project proposes a Smart Web-Based Polytechnic Admission Guidance and Management System that aims to simplify, automate, and organize the admission process through a centralized digital platform.*

The proposed system provides an integrated environment for three primary stakeholders: Students, Colleges, and Super Admin. Students can register and access the system through a secure login interface, where they can interact with an AI-based chatbot designed to provide admission-related assistance and guidance. Based on academic performance, interests, preferences, and predefined admission criteria, the system generates personalized branch and college suggestions.

The college module enables institutions to register on the platform and manage admission-related data efficiently. Colleges can upload student and admission information using standardized Excel templates, ensuring structured data entry and consistency across the system. This reduces manual workload, improves data accuracy, and allows easier monitoring of admission activities. The system also facilitates data validation and organized record maintenance, supporting better institutional management and reporting.

The Super Admin module serves as the central control unit of the system, responsible for managing college registrations, monitoring student activities, verifying uploaded data, and generating consolidated reports for analysis and oversight By integrating intelligent guidance, automated data management, and report generation mechanisms, the proposed system minimizes paperwork, reduces human errors, enhances operational efficiency, and improves transparency in the polytechnic admission process. The system supports data-driven decision-making, promotes accessibility of admission information, and provides a scalable framework that can be extended in future to include advanced predictive analytics, real-time admission updates, and mobile-based access. Ultimately, the system contributes towards creating a more organized, efficient, and student-centric admission ecosystem that benefits students, educational institutions, and administrative authorities alike..

Keywords*: Polytechnic Admission System, Web-Based Application, AI Chatbot Guidance, Student Decision Support, Admission Management System*