

Business Case: AI-Powered University Helpdesk Assistant

1. Executive Summary

The university receives thousands of queries from students related to admissions, hostel allotment, exam schedules, results, scholarships, and more. Currently, these are handled manually by staff, leading to delays and inefficiencies. We propose to develop an AI Helpdesk Agent that can handle common student queries 24/7 via the university website and WhatsApp.

2. Problem Statement

- * Students face long response times for basic information.
- * Staff are overwhelmed with repetitive questions.
- * Existing query resolution is inconsistent and dependent on office hours.

3. Proposed Solution

Develop an AI Helpdesk Agent that:

- * Understands natural language queries in English and Hindi.
- * Provides instant, accurate responses based on university rules and announcements.
- * Integrates with the university website and WhatsApp for easy access.

4. Key Benefits

Benefit	Impact	
-----	-----	
Instant query resolution	Reduces waiting time for students	
Staff efficiency	Staff focus on complex/critical tasks	
Bilingual support	Improves accessibility for Hindi-speaking users	
24x7 availability	No dependency on working hours	
Scalable system	Can be expanded for faculty, alumni, or parents	

5. Development Approach

Using the 4-Step Agentic Framework:

1. Define

- * Objective: Answer common student queries automatically.
- * Environment: Web interface + WhatsApp bot.

2. Design

- * Agent type: LLM-based with predefined intents.

- * Data source: FAQ database, academic calendar, official notices.

3. Implement

- * Use OpenAI or Rasa for NLP.

- * Integrate with WhatsApp via Twilio API and the university's web portal.

4. Iterate

- * Collect real queries, train the agent further.

- * Review unanswered questions weekly.

Conclusion

An AI-powered university helpdesk assistant is a cost-effective, scalable solution to improve student services. It aligns with the university's vision of digital transformation and can serve as the foundation for future agentic systems in academics and administration.