

**WEB PORTAL WITH GENERATIVE ARTIFICIAL INTELLIGENCE-POWERED  
COLLEGE INQUIRY CHATBOT FOR AEMILIANUM COLLEGE INC.**

A Project Study Presented to the Faculty of  
Master in Information Technology  
Aemilianum College Inc.  
Rizal St., Piot, West District, Sorsogon City  
Sorsogon, Philippines 4700

In Partial Fulfillment  
of the Requirements for the Degree  
MASTER IN INFORMATION TECHNOLOGY

**GENEVIEVE CATALAN OCA**

**2025**



## **PROJECT STUDY ABSTRACT**

**Title** : **AEMILIANUM COLLEGE INC. WEB PORTAL WITH  
GENERATIVE ARTIFICIAL INTELLIGENCE-POWERED  
COLLEGE INQUIRY CHATBOT**

**Number of Pages** : 143

**Author** : Genevieve C. Oca

**Type of Document** : Project Study

**Type of Publication** : Published

**School** : Aemilianum College Inc.  
Rizal St., Piot, West District, Sorsogon City  
Sorsogon, Philippines

**Degree Conferred** : Master in Information Technology (MIT)

**Keywords** : Aemilianum College Inc., Generative Artificial Intelligence,  
Inquiry Chatbot, Web Portal

This study, titled Web Portal with Generative Artificial Intelligence-Powered College Inquiry Chatbot for Aemilianum College Inc., aimed to enhance user interaction and information accessibility for Aemilianum College Inc. (ACI) through the development of an integrated web portal with a Generative AI-powered chatbot. The project followed the Agile Development Methodology, focusing on iterative development, collaboration, and flexibility. The scope of the project involved the creation of various modules, including the Admin Module for managing user accounts and content, the Staff/Teacher Module for profile management and content contribution, the Student Module for access to student-specific content and chatbot



interactions, and the Guest Module for accessing public information. A core feature of the portal was the Generative AI-Powered Chatbot, designed to handle inquiries related to ACI, admissions, academic departments, and more, while continuously updating its knowledge base. The system's performance was evaluated using ISO 25010 standards, assessing aspects like functional suitability, performance efficiency, and security. The study included a user evaluation with ten IT professionals and ten end-users to assess usability and functionality. The project's delimitation excluded advanced integrations beyond ACI's core functions and offline capabilities, focusing on text-based content and excluding non-essential content.

The project successfully implemented a front-facing web portal module that featured a dynamic homepage, content carousel, and integrated chatbot for inquiry handling, while ensuring accessibility to institutional information, academic details, and downloadable resources. Additionally, the project developed a comprehensive Administrative Management Module, which streamlined user management, content administration, and system configuration. The Staff/Teacher Management Module ensured secure profile management and content contribution tracking, while the Student Management Module offered secure profile handling and chatbot interaction. The integration of the Generative AI-Powered Chatbot with multi-language support, advanced knowledge base management, and contextual response capabilities enhanced user experience and interaction. Furthermore, the Notification Module managed various notification types, ensuring effective communication across



different system users. Evaluation of the system using ISO 25010 standards indicated exceptional performance, with an overall average rating of 4.18, reflecting high standards in usability, portability, and security.

The study concluded that the developed system effectively addressed the needs of Aemilianum College Inc. (ACI) by offering a comprehensive platform with robust modules, ensuring seamless user interaction across different stakeholders. The front-facing web portal, featuring dynamic content and a generative AI-powered chatbot, significantly enhanced accessibility and communication, while improving administrative efficiency. The system's performance in managing user accounts, content, and real-time notifications contributed to streamlined operations. The chatbot, powered by multi-language AI models, ensured contextual and accurate responses, further enhancing user assistance. Overall, the system successfully integrated advanced features, fostering a more efficient, user-friendly, and responsive environment for both institutional management and user engagement.

The recommendations derived from this study focused on enhancing the system's functionality and user engagement while ensuring its long-term success and adaptability. Continuously updating the content and chatbot knowledge base was deemed crucial to maintaining its relevance and improving user interaction, especially as user needs evolved. Integrating advanced reporting and analytics features would have optimized administrative processes, enabling more informed



decision-making and fostering operational efficiency. To support the evolving needs of faculty and staff, the system was recommended to include collaboration tools that enhanced workflow and facilitated content creation. Additionally, offering more personalized features for students could have greatly enhanced their experience, allowing for tailored interactions with the portal. Regular updates to the chatbot's natural language processing were recommended to help maintain its accuracy and contextual understanding, ensuring high-quality user assistance. Expanding the notification system to allow greater user customization could have further engaged users, providing them with a more personalized and relevant experience. Regular system audits and user feedback surveys were suggested to ensure continued high performance, identify areas for improvement, and optimize user satisfaction. Finally, implementing a comprehensive user training program was recommended to ensure that stakeholders could effectively utilize all system features, ensuring sustained success and seamless operations over time.