

# Building an ICTU Student Assistant Chatbot based on the Student Handbook

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**Abstract:** The topic focuses on addressing students' difficulties in looking up complex regulations from traditional student handbooks. The author proposes an intelligent chatbot solution using the RAG (Retrieval-Augmented Generation) architecture combined with an Agentic Framework (CrewAI) and a large language model from Groq. The research method includes preprocessing text data from PDF files, converting it into vector embeddings, and storing them in Qdrant for semantic retrieval. The result aims for a system that provides fast, accurate responses with the ability to cite specific sources from regulatory clauses, thereby optimizing student support activities at ICTU.

**Keywords:** Chatbot, RAG, CrewAI, Student Handbook, Artificial Intelligence

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