



**IMPLEMENTATION OF RAG SYSTEM FOR ENHANCING THE EFFICIENCY OF
HUMAN CAPITAL DIVISION IN ANSWERING EMPLOYEE QUESTIONS AT XL
AXIATA**

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Komputer**

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**FACULTY OF COMPUTER SCIENCE
INFORMATICS STUDY PROGRAM**

CIKARANG

AUGUST, 2025

**Implementation of RAG System for Enhancing the Efficiency of Human Capital
Division in Answering Employee Questions at XL Axiata**

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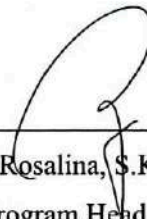
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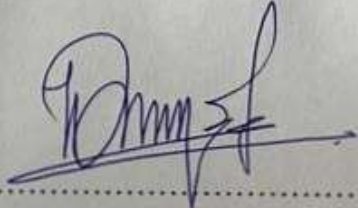
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ABSTRACT

Human Capital (HC) departments are often burdened with repetitive questions from employees regarding policies, benefits, procedures, and other administrative matters, so these routine tasks can divert valuable time and resources from strategic HC functions. This study aims to develop and implement an intelligent system that is capable of delivering accurate, relevant and context-aware responses through domain-specific chatbot using Retrieval-Augmented Generation (RAG) architecture, specifically designed to assist employees in the company policies domain. The system integrates a large language model developed by OpenAI with a curated internal knowledge base consisting of company policies and Human Capital-related documents. The RAG framework was selected for its ability to combine information retrieval with generative capabilities, enabling dynamic responses based on factual content. The findings show that the proposed chatbot significantly increased the accuracy and relevance of responses compared to traditional FAQ systems and general purpose chatbots. The domain-specific RAG chatbot demonstrates strong potential to enhance the operational efficiency of HC divisions. By leveraging OpenAI's advanced language model, the system represents a significant step forward in intelligent employee support and paving the way for more intelligent and responsive Human Capital services.

Keywords—Human Capital, Chatbot, Retrieval-Augmented Generation, OpenAI, Employee Assistance.

DEDICATION

I dedicate this capstone project to my family, my capstone team members, my advisors, and my lecturers for their continuous guidance and support. I also dedicate it to myself and to anyone who may use this project for educational purposes.

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