

**DESIGNING AN AI-ENABLED OPEN SOURCE HRIS ARCHITECTURE
A TOGAF GUIDE AND GOVERNANCE DRIVEN FRAMEWORK VALIDATED
THROUGH COBIT 2019 AND ISO/IEC 27001**

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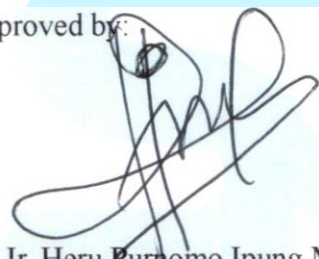
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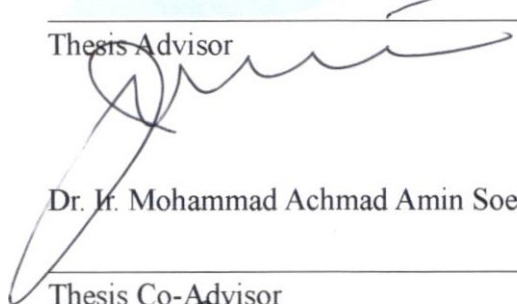

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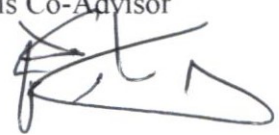
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ABSTRACT

DESIGNING AN AI-ENABLED HRIS ARCHITECTURE FOR PT ABC: A TOGAF- GUIDED AND GOVERNANCE-DRIVEN FRAMEWORK VALIDATED THROUGH COBIT 2019 AND ISO/IEC 27001

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Outsourced recruitment at PT ABC is currently characterized by manual, fragmented workflows and insufficient governance. This research aims to design a governance-aware, AI-Enabled Human Resource Information System (HRIS) architecture using a Design Science Research (DSR) approach guided by the TOGAF Architecture Development Method (ADM). The architecture integrates Large Language Models (LLM) and Retrieval-Augmented Generation (RAG) for automated CV parsing and candidate matching, explicitly positioning AI as decision-support to preserve human oversight. Evaluation was conducted through an n8n-based workflow automation Proof of Concept (PoC) and expert validation via Focus Group Discussion (FGD). Results demonstrate significant efficiency gains, with end-to-end processing completed in approximately 24.8 seconds per candidate. Furthermore, the architecture improves evaluation consistency, decision traceability, and alignment with COBIT 2019 and ISO/IEC 27001 standards. These findings provide a robust blueprint for responsible AI adoption in outsourced recruitment contexts

Keywords: *Enterprise Architecture, AI Governance, HRIS, Workflow Automation, Design Science Research..*

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DEDICATION

This thesis is dedicated to my family for their patience, understanding, and invaluable support throughout this research journey, as well as a personal achievement in my academic path.



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