

## **Abstract**

**Addressing the demand for accurate public transportation information in the intricate metropolitan landscape of Bandung City, this research has crafted a responsive platform utilizing Question Answering system capabilities and artificial intelligence. In response to the complex public transportation landscape, the study introduces a specialized QA system for the diverse transportation modes in the city. This research aims to develop a Question Answering system based on public transportation ontology of Bandung City. The system uses Naïve Bayes method to classify user questions, and Bag of Words (TF-IDF) method to search for relevant information from the ontology. The system is implemented in the form of a chat bot that can be accessed through the Telegram application. Evaluation results showcase a 70% accuracy in answering questions related to public transportation in Bandung City, with notable F1-Scores of 0.78 for FARE and 0.79 for OPERATIONAL HOURS, while indicating room for improvement in the ROUTE and STOPS categories. This research contributes to improving the accessibility and quality of public transportation information in Bandung City. Future research directions prioritize refining the ontology, incorporating advanced keyword extraction, and customizing SPARQL queries for enhanced outcomes, aligning with the goal of creating an efficient information access platform for public transportation queries in Bandung.**

**Keywords: question answering, naïve bayes, ontology, public transportation, telegram bot**