

## ABSTRACT

### *Route Finding Product Design with UI/UX Based Virtual Assistant Feature for Transjakarta Bus Case Study*

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*The background for this study discusses the development of a virtual assistant-based product to optimize route searches at Transjakarta bus stops. Jakarta faces transportation challenges such as traffic congestion and limited infrastructure, despite Transjakarta users reaching 1.3 million daily in 2023. Utilizing User Interface (UI) and User Experience (UX) technologies, this product is designed to improve travel efficiency, reduce waiting times, and enhance user satisfaction. The research methods included naturalistic observation of user activities at bus stops, such as queuing, boarding, and route confusion, as well as random interviews to identify user needs. Data analysis revealed that users often struggle with routes and operational schedules, particularly seniors and individuals with disabilities. As a solution, a virtual assistant was designed to provide real-time route information, bus schedules, travel time estimates, and integration with other transportation modes like MRT and KRL. The product is equipped with accessibility features, including audio output and braille text, making it user-friendly for people with disabilities. Implementing this technology is expected to address transportation challenges while laying a foundation for a more inclusive and efficient public transportation system. This innovation offers a better travel experience for urban communities.*

**Keyword:** *Virtual Assistant, Public Transportation, Route Search, Urban Mobility, Transjakarta*