

## **ABTRACT**

### ***UI/UX Application Design for Tabung Sampah to Increase Community Participation in Waste Management in South Tangerang***

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*The waste problem in Indonesia has a significant negative impact on the environment, public health, and overall quality of life, with a total of 33 million tons of waste generated annually. South Tangerang City alone contributes approximately 1,022.65 tons of waste per day, while the capacity of its Final Disposal Sites (TPA) remains highly limited. A lack of public awareness and a weak waste management system are the main obstacles in addressing this issue. Tabung Sampah is a collaborative program initiated by several institutions, focusing on sustainable waste governance. To support this initiative, the Tabung Sampah application was developed as a digital solution that facilitates education, collection, sorting, and efficient waste distribution. The application is designed to reduce household waste that pollutes the environment while also providing economic value. Its core features are tailored to user needs, including waste management services, pick-up scheduling, real-time environmental contribution reports, and a waste-to-economic-value conversion list. Users can also engage with gamification features by collecting points based on their contributions, which can be exchanged for rewards or incentives. Additionally, the app provides articles and educational content related to waste management and its benefits. This study adopts the User-Centered Design (UCD) method, which consists of four main stages: understanding the context of use, analyzing user needs, designing solutions, and evaluating the design. Through this approach, the resulting solution is expected to align with user needs, increase participation, promote sustainable actions, and deliver a positive impact on both society and the environment.*

**Key words:** Waste management, Waste Bank, Application, Gamification, UI/UX