

## **ABSTRACT**

*Data cleaning and standardization are critical steps to ensure data quality before performing further analysis. Manual methods using spreadsheets are often inefficient and prone to errors, particularly when handling large datasets. To overcome these challenges, a web-based automation system was developed using Streamlit. This system automates the matching of registration and feedback data, data cleaning, and standardization based on a master reference. Key features include result visualization, summary reports, and input structure validation, all designed to streamline verification and speed up data processing. The system was built using Python, integrating libraries such as Pandas and FuzzyWuzzy. Testing was conducted using ISO/IEC 25010 standards and black-box testing, with dummy datasets of 190 registration entries and 56 feedback entries. The results demonstrated over 99% improvement in processing time compared to manual methods and achieved 100% accuracy in matching university and major names. Overall, the system proved to be highly effective in reducing human error, improving data consistency, and accelerating data management processes.*

**Keywords:** *Data Matching, Data Cleaning, Data Standardization, Fuzzy Matching, Streamlit, System Automation*