

## **ABSTRACT**

The hospitality industry generates food waste every day. This waste is often considered worthless and thrown away, even though it still contains potential nutrients that can be utilized. The main problem in this study is the lack of utilization of potential nutrients in food waste in the hospitality industry.

To address this issue, this research developed an innovative system that integrates a digital scale with a food nutrition database. The system enables accurate measurement of the nutrient content in different types of food waste, making it easier to identify their potential utilization. The results showed that the system can assist hospitality students in conducting food testing and the importance of managing food waste which will open up opportunities to create nutritious new dishes.

Quantitative data from this study obtained weighing results with an accuracy above 95% and an error of less than 5%. In addition, qualitative data from a survey of students showed that the system was well received and considered very useful.

**Keywords: Food waste, Nutrition, Weighing, Database, Hospitality**