## ABSTRACT

Bandung City Square is one of the public spaces that can be used for community activities and managed by the government. However, it cannot be denied that public spaces such as Bandung City Square have a high potential for waste products in a city. Unfortunately, there are still many people around the square claiming they are still lazy to manage their waste, especially plastic waste. Meanwhile, plastic waste still has economic value that can be utilized by recycling but is constrained by the lack of public awareness. The purpose of this design is to design a recycling facility with new and appropriate innovations to minimize the problem of inorganic waste effectively, namely in the form of a special Reverse Vending Machine based on the Internet of Things (IoT). The research method used is a qualitative research method with a case study approach and the design method uses a comparative study method. The output obtained is to design a recycling facility for plastic bottles or cans, namely a reverse vending machine and using an Internet of Things (IoT) system that is integrated with the mySmash! Application. The conclusion of this design is intended to make use of trash cans or plastic bottles in the Bandung City square environment that still have economic value by way of the recycling process (recycle) to reduce the work of cleaning staff in sorting garbage.



Keywords: Recycling, Reverse Vending Machine, the Internet of Things