RANCANG BANGUN TEMPAT SAMPAH PINTAR PEMILAH LOGAM DAN NON LOGAM MENGGUNAKAN NODEMCU ESP8266 BERBASIS APLIKASI ANDROID

Shafadonna Hayu Tsara
Program Studi Teknik Elektro, Fakultas Sains dan Teknologi
Universitas Teknologi Yogykarta
Jl. Ringroad Utara Jombor Sleman Yogyakarta
E-mail: tsarashafa65@gmail.com

ABSTRACT

Garbage is a big and endless problem. The problem of waste has become a severe problem, especially in big cities, not only in Indonesia, but the whole world also feels a quite serious problem. The Indonesian government issued a policy regarding waste management regulated in Law No. 18 of 2008 concerning Waste Management. However, public awareness to dispose of waste in its place according to the type of waste is still lacking. Waste of different types affects the period for its decomposition. The 3R program (reuse, reduce, and recycle) is one of the waste management program's supporting actions. Making automatic waste sorting based on the type of waste is made with one garbage entrance in which there is a proximity sensor that plays a role in sorting out the types of waste. The tool is also equipped with a garbage level detector connected to IoT.

The proximity sensor differentiates between organic and inorganic waste depending on the metal content in the waste. The test derives 42 % for Inductive proximity sensor value and an accuracy value of 73.3%. Waste level test using an ultrasonic sensor on organic waste obtained an error value of 20% and 20% for inorganic waste.

Keywords: *Garbage, proximity sensor, IoT, NodeMCU ESP8266.*