

ABSTRACT

In recent years, the amount of waste in this country has increased drastically. This is due to the increasing human population in each region, as well as the use of disposable items that cause the accumulation of waste. The accumulation of waste that is not managed properly can pollute the environment and make the environment dirty and a hotbed of disease. Recycling waste is a good thing, in order to reduce the use of disposable goods that cause waste accumulation. This research discusses the implementation of the Artificial Neural Network (ANN) algorithm for inorganic waste classification. Inorganic waste is an environmental problem that is increasingly urgent to be managed properly. Proper classification of this waste can facilitate the process of waste management and recycling. In this study, we collected diverse inorganic waste datasets and trained a ANN model to identify different types of inorganic waste. We optimize the ANN model by using data preprocessing techniques, convolution layers, and fully connected layers. The experimental results show that the ANN model can classify inorganic waste with a high degree of accuracy. These results demonstrate the potential use of ANNs in waste management and contribute to a more efficient solution to an increasingly pressing environmental problem.

Keywords: Artificial Neural Network, Waste, Dataset, Recycling.