

## **ABSTRACT**

Garbage is one of the causes of flooding due to a lot of leaves which block the flow of water so that water pools to the ground surface. Thing This happens because there are still many people who are not aware of the dangers of that attitude. Not a few people can't take advantage of the garbage become something useful so that the problem arises.

Based on this phenomenon, the manufacture of a drying system for organic matter, especially in leaf waste which will later become the material for making briquettes based on the Internet of Things, can be a solution to this big problem.

In this final project, an Internet-based leaf drying system is designed Things that will shorten the drying time of the leaves. Wet leaves will be dried with an oven connected to the NodeMCU ESP8266 to process monitoring and controlling can be monitored in the Telegram application. There are sensors DHT22 to detect temperature and humidity in the oven. As well as 2 Channel Relays as an on/off switch for the oven. The drying process will be automatically stop when the humidity in the oven has reached 36%.

Based on the results of device testing, it is known that the QoS on the system this is included in the good category with each scenario, namely the average delay in the three scenarios is 128ms, the throughput in the three scenarios is 1454.91Kbps and packet loss in the three scenarios is 0%. Testing the results of drying leaves can be processed into briquettes was successful.

**Key Word** : Garbage, Leaves, Briquettes, Internet of Things, Telegram.