ABSTRACT

One of the factors affecting salt scaracity in indonesia is that traditional salt production still relies heavily on sunlight. This is very influential on the quality and quality of Indonesian salt because the influence of Indonesias climate is very uncertain. This research persents a method to help the role of sunlight with the Internet of Things (IoT) which can activate the heater based on tempratures detected by temprature sensors.

There are three main parts in the prototype, which are a circuit that connects NodeMCU ESP8266 module, DS18B20 and DHT22 sensors, electrical heater, and other hardware then Firebase as the cloud database that will store data gathered from the circuit and finally Android Application made in Android Studio to monitor the salt production. The procedure of electrical heater automation is when the temperature is < 32°C, the heater will turn on, and when the temperature hits >65°C the heater will automatically turn off.

The result obtained from the prototype experiment is that the salt production did not depend on sunlight, but the impact was the price of the salt produced from the prototype was more expensive than the price of salt that was produced by traditional farmers. The time for the production also took longer considering a big difference in in the size of the prototype's container and the size of the salt farm ponds. Quality of Service (QoS) obtained are the average of delay was 0.13763 seconds, throughput was 19256.3 kbits/s, and packet loss was zero which mean excellent. On the other hand, the result of the average of jitter was 0.17191 seconds and can be categorized as good.

Key Word: Indonesian Salt, Iot, Sun