

## ABSTRACT

Cooking rice is a daily activity for the people of Indonesia. Rice is a staple food that is consumed daily in almost all regions of Indonesia, even in Asia. That is because rice is a very good source of carbohydrates for the body. The existence of an electric rice cooker (rice cooker) is a tool that is always used to cook rice today. However, apart from the ease of using a rice cooker, there were shortcomings from the device. The user must measure rice and water directly and in the right amount to produce good rice. These limitations require the willingness of time and place from rice cooker users.

Based on these problems an application interface is needed that can control and monitor the rice cooker system that can automatically measure rice and water. Control the system using an IoT-based android application. The android application will be able to give commands to start the process of cooking rice, check the availability of water and rice, view cooking history, estimate cooking time, and turn off or turn on the rice cooker. Utilizing the IoT concept by storing data on a web server using a web hosting service allows android applications and systems to send and receive data through an internet connection so that the android application can monitor and control the system from unlimited distance and time as long as the system and application are connected to the internet.

The result of this final project is the creation of a rice cooker application interface that can send a lot of data to 2 cups of rice to 9 cups with an overall average delay of 235 ms and an overall average data rate of 1.5 Kbps. Then the average energy needed when the rice cooker system is working in the first hour is 0.08875 KWh and in the first two hours is 0.005375 KWh.

**Keywords:** Internet of Things, Android Studio, phpMyAdmin, Microcontroller