ABSTRACT

As the development of automatic technology, the presentation of coffee drinks is now provided in bottles or glass. But not everyone likes the instant coffee composition on the market. A coffee machine needs to be designed to facilitate user in making a suitable coffee composition.

In the final project, researchers designed the automatic coffee machine with a NodeMCU microcontroller that has a Wi-Fi module so that it can be controlled through the mobile application. This coffee machine has the advantage in measuring the accurate measurement of coffee because it uses Loadcell sensors and use the application to control the composition of coffee. This coffee machine also has the advantage of monitoring the water temperature.

In this case, it has managed to design an automated prototype coffee machine using a microcontroller based on the Internet of things. Control the system through the mobile application and use the data transmission in the ESP8266 Wi-Fi module. The accuracy for the coffee composition of the test obtained the highest Test success value for a size of 30 grams of 96.67% and obtained an error testing value in the test of the lowest 3.33%. The accuracy of the water composition of the test is achieved with an average tool success value of 97.17% and the tool error value is in the average test of 2.83%.

Keywords**: **Loadcell. Coffee, Internet of Things

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