

ABSTRACT

Smart home is a technology that allows its users to access the appliances inside their home through a network system. Smart home is usually accessible by a platform. This research is aiming to allow user minimalizing electricity usage by monitoring and controlling via website.

This final project is a realization from the previous design arrangement that able to monitor electricity usage and controls the appliances that connected using CodeIgniter framework and accessible with browser. The integrated website with firebase can do controls and monitoring the smart home in real time.

This research applied website application using black box and white box method, also QoS (delay, packet loss, and throughput) test to show the performances and testing the website functionalities.

Based on the tests result and analysis by using the Black box method, can be known that the website is running well as the arranged scenario and giving the expected result. In the white box testing, there are no mistakes on the program codes. That shown by the result of coding sample in login menu without error in the test by using one of the coding method in website. The QoS result shown that the average delay amount is 78,9ms, 0% packet loss, and throughput 19,67 kbps. These data represent a good result from the test and the website is worth to use.

Kata kunci : *Smart Home, Website, Monitoring, Controlling, Electricity, Firebase.*