ABSTRACT

The Electricity is the most needed energy in the world. Generally, all of device and tools which use to do some productive need electricity as the power supply. Lighting is one of caused the enhancement of electricity needed, therefor we need a technology which can savings the electricity for more efficient and can be monitored from everywhere.

The Internet of Things (IoT) is a technology we need, because it can be monitored some devices from the apps. Website is one of apps that can integrate some devices as long as the devices connected with the internet. Therefor, in this project the author will build a device that can monitored and control lighting from website and connected local network and database as the storage to save information.

At this project, the author using delay, jitter and throughput as the parameter. The delay testing for each node is directly proportional with the distance between access point and node. The smallest delay value is 25,2482948ms which owned by first-node at save data testing and the biggest one is 34,51932529ms which owned by the third-node at the control testing and get excellent category in TIPHON standard. The jitter testing, value at third-node ist the biggest one because it has more delay's variation than the others which value is 7,029467ms and get good category at TIPHON standard. Whilst at throughput testing, the same relative because it use same network. The biggest value of throughput is 7,029467ms and the smallest is 6,753127ms and get bad category in TIPHON standard. After got the conclusion of each parameter, we need internet connection with minimum bandwidth 10 Mbps.

Keyword : delay, jitter, throughput, website