ABSTRACT

Videotron in Indonesia is a new solution in the world of advertising. With the concept of unifying outdoor media with indoor media. Videotron is often referred to as a digital billboard or electronic billboard because videotron is basically the same as a billboard, only with a different format, namely videotron in the form of audio visual.

The problem of using promotional media with videotron, most of the importers or sales agents of videotron do not have good technicians and the knowledge of technicians is the cause of poor maintenance. Some areas have different natural conditions, so weather conditions such as rain can affect the quality of the videotron device itself. There is frequent damage to some components of the videotron as a result of a lightning strike when the videotron operates.

Through this research, a videotron control and monitoring system based on the Internet of Things (IoT) was created. This control and monitoring system is designed using several components consisting of a light sensor to detect light intensity on the videotron screen, a DHT11 temperature and humidity sensor, a rain sensor, and a NodeMCU esp8266 that can transmit data via the internet network. Operators can see the latest conditions around the videotron through the monitoring website and can control the videotron such as turning off the videotron if it is found that the sonsor data value received indicates bad weather conditions. This tool can work properly according to the ITU-T G.1010 standard with the calculation of system performance getting the average delay value during monitoring activities of 1.205 s and the average value of delay during controlling activities of 0.048 s. Then the average value of throughput obtained during monitoring activities is 429.35 bps, while the average value of throughput during controlling activities is 4731 bps.

Keywords: IoT, communicate, videotron, esp8266.