ABSTRACT

Monita is a system designed for continuous data requirements. Data equipment can be monitored remotely using various means of communication with the concept of "monitoring only". Today, Monita module configuration can only be done using CLI (command Line interface) on laptop via USB cable with serial communication, while Monita module is located on site which is difficult to be accessed. This study aims to create an android application for Monita module configuration with Bluetooth (wireless) communication protocol, so that the configuration can be done without having to open laptop and without installing a USB cable. This final project will test the android application for Monita module configuration which is developed using automatic testing, calculating the Bluetooth efficiency compared to USB cable using a timer, and calculating the Bluetooth communication data traffic speed using debug on android studio. The result shows that the developed android application has a user interface that functions properly without any errors. The android application performance is adequate with an average use CPU usage of 14,1%, an average memory usage of 156,51 Mb, and an average FPS of 7,57. The configuration efficiency result shows that the configuration using application is more efficient than using CLI which is indicated by the reduction of the average configuration duration of 11,85 seconds or 57%. USB cable is faster than the Bluetooth with an average time difference of 8 seconds. Overall, configuring and monitoring the monita module using the android application is more effective than using the CLI because it does not need to use a USB cable.

Keywords : Android Application, Bluetooth, System Monitoring Online