

ABSTRACT

The need for technology among the public is increasing every year, especially the city of Bandung which has the vision and mission as a Smart City. One of the problems faced is city bus transportation, where people are still having difficulty monitoring the position of the bus. Then how is the design and implementation of applications and websites for monitoring city buses in Bandung.

In this final project an application will be made and the website can detect the presence of city buses in Bandung, bus stops, the time of arrival of the bus to the selected bus stop, the number of bus passengers, to the time needed to get to the destination that will be displayed to the website and application. The website is created using bootstrap to get a responsive display, with MySQL as a database of storage and using the PHP programming language, and applications made are the result of converts from finished websites to facilitate maintenance.

Applications and websites that are designed can run well and have done some testing. Testing delay obtained an average value of 11.6 ms in the first sample, 8 ms in the second sample, and 9.2 ms in the third sample. The three delay values in the experiment show a delay value of <150 ms which means that according to the ITU-T G.114 the delay is a very good result. That way sending data from applications and websites to MySQL can work well. Packet loss testing obtained an average value of 0.2% in the first sample, 0.181% in the second sample, and 0% in the third sample. In the first sample and the second sample shows the average value of packet loss <3% which means good, and in the third sample shows an average value of 0% packet loss, which means very good. Throughput testing obtained an average value of 1576.6 bps in the first sample, 1960.6 bps in the second sample, and 1792.9 bps in the third sample was quite good.

Keywords : *Internet Of Things, Application, APRS, Database, MySQL, PHP*