ABSTRACT

Monitoring of public bus vehicles that exist today is mostly done conventionally, namely by controlling directly to passengers in one by one. In reality there is often negligence, besides there is no real data transparency and can take a lot of time. Therefore it is necessary to make an automatic bus monitoring prototype.

Monitoring of bus passengers by IP cameras utilizes integrated switch work with nodemcu mounted beneath the passenger bench as a marker that the bench is occupied with passengers or not. IP camera integrated with raspberry pi will be active when raspberry pi connected to the network then recording to strengthen the evidence of passenger data from the switch. In order for users to know the number of passengers and the circumstances on the bus required a link between the system and the user is a web server to display image capture from the camera and data on the number of passengers from nodemcu.

From the test results, each device can be integrated with each other and can send data when connected. Delivery of data when the condition of 3G network data delivery percentage is only 75%, there is one point of data transmission monitoring on the bus that causes data not sent, due to the length of delivery so that officers can not access because bus conditions are running at speeds of 20km / hour. While sending data on the condition of 4G networks all terikirim with 100% percentage.

Keywords **:** *recording, monitoring*