ABSTRACT

Prevention of theft events can be done with the security system, the whole system will run when the sensor recognizes face recognition signal to the microcontroller with the condition of the existence of the face object that is not in the database in the home area. The signal will be analyzed as a form of analysis of Xbee network quality by measuring the delay and throughput that the result of 60 meters merupkana point that is considered optimum in Xbee communication is obstructed based on data throughput 14.2165 and delay 0.12518. If the object that is not in the system database will send notification in the form of email using SMTP google server. Delivery via 4G and 3G network in analysis using wireshark software and got delay and throughput 4G have better result that is 03015 and 654.119. The whole system is analyzed using the availability and reability parameters of the data input to the overall data output and yields more than 95% so the system is considered to work well.

Keyword: Camera, Face Recognition, Arduino, Raspberry Pi