ABSTRACT

Security is one of the most important things in life. Due to many activities of people who often require them to leave the house for work, school, shopping, and other activities, the house becomes more vulnerable to threats, especially theft. Therefore, security at home must be increased. With the development of the Internet of Things (IoT) technology, which allows objects to exchange information, it is hoped that they can also be integrated with security systems. One of the solutions offered is a smart door with face recognition authentication based on the Internet of Things (IoT) which is expected to increase security and reduce theft rates.

This research aims to create a smart door prototype that can be integrated with a smartphone so we can open the door using face recognition and if unknwon people is caught on camera, the system will send a notification to the home owner to follow up on this, whether the person is allowed to enter or not, and can activate the alarm for emergency situations.

The whole system can work well even though the accuracy level of face recognition is not 100%. From the tests performed, it was found that the average delay was 50.066 milliseconds and an average throughput of 41.239 kilobits per second. The system has a reliability of 97.918% and an availability of 97.96%.

Keywords: internet of things, smart home, face Recognition