ABSTRACT

Smart homes have evolved rapidly in recent years. More and more devices and systems are being designed such as the Internet of Things, which is a technology that allows electronic devices to connect to the internet and communicate with each other. This allows homes to be connected to various devices such as doorbells that are linked to an app, so they can be connected and operated remotely.

In the research entitled "IMPLEMENTATION OF ESP32-CAM AND BLYNK APP ON SMART DOOR BELL SYSTEM", the author designed doorbell technology using ESP32-cam. This system is connected to the Blynk application via the internet. This technology allows homeowners to monitor the house and increase its security with the bell notification and image capture camera installed on the door of the house, as well as a magnetic sensor that can send a notification when the door is forced open.

The results obtained from this research show that all features used in the Smart Door Bell system can work well, especially in the security system of the magnetic door switch and door lock sensors, but there are obstacles in the appearance of images in the application due to the limitations of the application when it is on a different network with the ESP32-cam. According to the results of the Quality of Service testing carried out, the performance of the device's functionality can be affected by the condition of the device that is overheating and the network conditions used. So it can be concluded that the device requires additional devices to process data on the hardware side.

KeyWord: *Internet of things*, *smart home*, *doorbell, ESP 32-cam, Blynk Apllication, ArduinoIDE.*