## ABSTRACT

IoT (Internet of Things) has become a field of research itself since the development of internet technology and other communication media, the more evolving human needs about technology, the more research is present, the Internet of Things is one of the thoughts of researchers who optimize the access to room devices for smarthomes. Smarthome is a combination of technology and service in the home environment with the aim of increasing the efficiency of comfort and safety.

In this final project aims to design and create a system that can be accessed using IoT via mobile phones or smartphones. The system to be made includes certain points in the home environment, that is, the gate or garage of the house, namely in controlling the gate or garage, the garage security system, which is the garage lock system, and the lighting system at the garage point. In its implementation using the NodeMCU ESP 8266 module combined the Bynk application on a smartphone prototype range of wheeled gates with a set time of 2 seconds as far as 160 cm, and the range of Android smartphone network coverage used as far as 40 meters.

With an application based on a smartphone it is expected to be able to connect with home devices such as house lights, house gates and door locks or gate systems so that they can control, monitor and automate the device. The application used is the blynk application which aims to control the microcontroller via the internet and is a container of creativity to create a graphical interface for projects that can be implemented only by drag and drop widget methods.

Keywords: Smarthome, IoT, NodeMCU ESP 8266, Blynk