

## ***ABSTRACT***

In this modern era, people have variety of activities so that we often leave the house for a long time. And also often we forget the little things that have a big impact, like forgot to turn off the lights, let the fans turned on, let the door open and so forth. One of the solutions to resolve these problems is to use Smart Home system. Smart Home is a home-installed system that allows us to control the devices in the home using smartphone or computer.

In this Final project, designed a smart home system with Raspberry Pi 3 as its center and Telegram application as a controller. Raspberry Pi will be connected with various electronic devices and sensors installed at home. Then using Python language, various codes will be written so that the tools installed on Raspberry Pi can be controlled via commands provided via Telegram app. Any commands sent from Telegram will be processed and executed accordingly.

Thus, the various devices at home can be controlled by the user even though the user is not at home, as long as the user can connect to the Internet and can access Telegram.

**Keywords** : *Smart home, Sensor, Raspberry Pi 3, Smartphone, Telegram*