

ABSTRACT

Sigit Prasetyo. 57419199

SISTEM *SMART HOME* BERBASIS IOT MENGGUNAKAN BLYNK DAN GOOGLE ASSISTANT

Thesis, Department of Informatics, Faculty of Industrial Technology, Gunadarma University, 2023.

The Internet of Things (IoT) has connected various objects through the internet, having a significant impact in various aspects of life. Despite this, daily life remains haunted by issues such as temperature monitoring, waste of electrical energy, home security, and fire risk. As a solution, the smart home concept was implemented, allowing real-time monitoring of home devices with accurate information about temperature, humidity, gas detection, and fire potential. The research aims to develop an "IoT-Based Smart Home System using Blynk and Google Assistant" that enables efficient monitoring and control of home devices via smartphones. The stages include identification, analysis, design, implementation, and trials. The system integrates various sensors including DHT11 for temperature and humidity, IR Flame for fire detection, MQ-2 for gas leaks, MC-38 for doors, PIR for suspicious movements, servo motors for garage bars, and LEDs for lighting. This integration allows control of home devices through the Blynk app and voice control via Google Assistant. Sensor integration enables accurate data transmission and notifications regarding movement, temperature conditions, humidity, fire, and gas leaks.

Keywords : IoT, Smart Home, Blynk, Google Assistant
(xiv + 67 + appendix)

Bibliography (2014 – 2023)