ABSTRACT

The use of renewable energy such as solar power plants (PLTS) is increasingly intensive. However, monitoring the performance of solar panels in real-time is still an obstacle. This research aims to design and build a solar panel monitoring system that uses the Internet of Things (IoT) using the Blynk platform.

The system uses sensors to measure solar panel parameters such as voltage, current, power, and temperature. The sensor data is converted and processed by the Arduino Wemos D1 microcontroller, then sent to the Blynk server via the internet network. The data is displayed in real-time on the Blynk application on a smartphone, so that users can monitor the performance of solar panels from anywhere and anytime.

This research shows that the IoT-based solar panel monitoring system through Blynk can work well. The system is able to display real-time data of solar panel parameters with high accuracy. The system can help users to monitor the performance of solar panels and take necessary actions to optimize their production.

Keywords: *Solar Panel, Monitoring, IoT, Blynk, Arduino Wemos D1, Real-time.*