

ESP8266-BASED WATER LEVEL SYSTEM FOR MONITORING RIVER HEIGHT AND FLOW RATE USING THE INTERNET OF THINGS

Ananda Vigo Paku Sadewa

Electrical Engineering Study Program, Faculty of Science and Technology

University of Technology Yogyakarta

Jl. Ringroad Utara Jombor, Sleman, Yogyakarta

E-mail: email.mahasiswa@gmail.com

ABSTRACT

The Water Level system is a device designed to monitor water height, often integrated with sensors and Wi-Fi modules such as the ESP8266 to enable real-time data transmission. This system can send accurate water level readings to a server or to the Blynk application for further analysis, making it essential for water resource management and flood risk assessment. By utilizing sensors, the system delivers precise information on water level fluctuations. To enhance early warning capabilities, a siren provides alerts on-site, while users and authorities receive notifications via the Blynk app, allowing timely anticipation of rising water levels or potential flooding events. A solar panel serves as a renewable energy source, enabling the device to function autonomously without dependence on external power supplies. This feature is especially valuable for deployment in remote or hard-to-reach areas, ensuring continuous monitoring in critical locations.

Keywords: ESP8266 Water Level, Solar Panel.