RANCANG BANGUN SISTEM MONITORING CUACA UNTUK EARLY WARNING SYSTEM MENGGUNAKAN SENSOR ANEMOMETER DAN SENSOR BMP280 BERBASIS ARDUINO ROBOTDYN

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ABSTRACT

Information about wind speed, pressure, and air temperature quickly and accurately is one of the important things that we rarely know. The design of a disaster early warning system can be a source of information as well as a solution to the problems that occur. Detection of wind speed, pressure, and air temperature requires supporting devices such as in this final project. The devices used are wind speed detection sensors or anemometers, air pressure and temperature sensors or BMP280 which are both connected to the Arduino Robotdyn microcontroller as a device that records and acquires data. By using the ESP8266 Wi-Fi communication system, data can be sent to a web server on the EWS system with a data transmission time of 6 seconds, and the data will be displayed in the form of numbers. The weather monitoring system for the EWS that has been designed has been successfully tested with an error value for the Anemometer sensor of 4.3%, for the air pressure measurement parameter on the BMP280 sensor of 0.9%, and the air temperature measurement parameter on the BMP280 sensor of 3.19%.

Keywords **:** *Strong wind, Device, Sensor, System.*