# ABSTRACT

*Indonesia is a country that has privileges based on its geographical location. Therefore, Indonesia will always have sufficient wind supply throughout the year and will always be lit by the sun because it is on the equator. With such conditions, it is better to build a power plant that utilizes this energy rather than using fossil fuels such as oil, coal, and natural gas because it can cause an increase in $CO^2$ levels in the atmosphere. To prevent this, the authors want to create an environmentally friendly hybrid power plant that can utilize solar and wind energy and create a simple web-based application that can monitor the power plant itself. By utilizing a voltage sensor, light intensity sensor, and a simple anemometer, then using the Laravel framework to create a web-based application, which is connected by an Arduino microcontroller with the addition of an Ethernet Shield as a connecting component to transmit values from the sensor. Web applications are made with visual displays such as graphs and tables to facilitate their use in monitoring or reporting. Based on data validity testing, the values read by the sensor, which are then sent by Arduino and appear in the monitoring application are the correct data and correspond to those listed on the serial monitor. From the web application side, based on data connectivity testing, the application can receive and process data properly in the form of tables and graphs when the delay in sending data on the Arduino is more than 5 seconds in single data transmission.*

*Keywords: Hybrid Power Plant, Web Monitoring, Arduino, Solar Energy, Wind Energy*