

ABSTRACT

PLTS (Solar Power Plant) is a power plant that utilizes solar energy. PLTS uses photovoltaic modules to produce electrical energy by converting sunlight into electrical energy. PLTS that are developing at this time still need to be optimized especially in the measurement of electrical energy that is done manually with a multimeter. in a process of measuring electrical energy in a PVP, it needs to be carried out regularly so that each condition can be monitored properly. One effective and efficient way to overcome this is to use a monitoring system. The design of this system uses the Xbee communication module as the recipient of sensor data sent and Raspberry Pi which functions as a server to process and store data in the form of a database so that the data can be accessed through the website. Based on the test results, this system can detect the current, voltage and power produced by the solar panel and provide e-mail notification to the officers from the results obtained by good, medium and bad solar panels in accordance with the actual conditions.

Keywords: Monitoring System, Photovoltaik, Web, and Raspberry Pi.