

ABSTRACT

Indonesia, a country located at the equator, scientifically has a relatively small potential for wind energy, but in some areas it has a geography that allows for wind energy processes to occur. Wind energy source is a renewable energy source and the material from wind energy has many ingredients and does not damage the environment.

This study aims to design a simple weather station with the aim of analyzing wind potential and determining areas in the Telkom University environment that can be utilized as wind energy sources for wind power generation.

The results of testing the simple weather station system have an average speed ranging from 0.30 m/s to 2.07 m/s every day with an electrical power of 200.7 watts with a measurement height of 10 meters. Based on the results of the tests carried out, the construction of wind power plants in the Telkom University environment is not recommended because of the less than optimal wind speed factor.

Keywords : *Weather station, Data analysis, Wind power plant*