ABSTRACT

The monitoring process windmills usually done manually by an operator, by noting the amount of the value of the voltage, current, power, and speed of the wind generated by the windmill generator. The manual process like this requires a great effort, and the data obtained is not accurate because each data capture long enough. By utilizing the Internet of Thing (IoT) is a concept to expand the connectivity of the device controller to the Internet. Process analysis windmill using a voltage sensor, a current sensor and sensor rotary encoder as scorekeeper windmill rotation speed. To be able to connect to the internet (web server / hosting), the microcontroller is connected to a router which has ethernet and internet connectivity, as the sender of the data from the microcontroller to the internet.Based on the measurement test voltage sensor has a measurement tolerance of 3.8%, the load current sensors with a variety of have tolerance by 10.6% as well as rotary encoder sensors have an accurate measurement. Data transmission between the microcontroller with the server successfully displayed on the website. Website interface for remote monitoring, has a history data and graph data to facilitate monitoring. The monitoring process can be done anywhere, no distance limited by the data generated can be monitored each time.

Keyword : Internet of Thing (IOT), Windmills, Website