ABSTRACT

Monitoring the performance of solar panels is very necessary to assess the performance of a solar panel in real environmental conditions. This study aims to provide a new technique for direct and real time monitoring of current, voltage, and power. To meet these needs, the inverter performance monitoring system which is analyzed through Growatt Shine Server uses the internet which is integrated with a database as a data store.

The design of this webserver-based system is connected to a computer through the Growatt Shine Server. The result of this monitoring system is that the measurement of every power, current, and voltage data can be processed directly and displayed in graphical form in real time conditions and can monitor the performance remotely or via the internet. Information about the voltage and current from the inverter that is collected in real time can be obtained directly through an Excel document whose data is obtained from the database. This facility provides convenience for further data processing.

***Keywords** : Monitoring, Inverter, Growatt Shine Server*