Photovoltaics (PV) market electrical energy generation industry is growing at a fast rate. However, these systems need to be monitored. This study is conducted within MCAST Energy Research Group supported by http://www.3dmicrogrid.com/. PV systems located on MCAST Main Campus at Paola require monitoring on raw data generated from inverters. A comprehensive literature survey on PV energy performance was conducted.

The aim of this paper created an automatic system which transfers data from PV system to a server and be saved, to ensure that all data is being recorded. Also, this data need to be analysed to get its performance during the period analysed.

The methodology used will send and save data on MCAST server automatically. Later, using an automated Matlab program, data will be assorted and analysed to identify any errors or faults that affect system performance.

**Keywords:** PV system performance, PV monitoring.

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