Development of PV Module Power Degradation Analyzer

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Abstract:

The aim of this paper is to design and develop a system that can analyze the performance degradation of a PV module based on real operating condition (ROC). In this research, the system will capture voltage and current under the real operating condition in order to get the Standard Test Condition (STC) parameters. Then this system will calculate the power degradation of the tested PV module. The experiment showed that the proposed system can estimate the PV module performance degradation by up to 90% accuracy. The system has been designed so that it can be a portable device which can be easily taken everywhere at any time.

Keywords : Solar Module; Standard Test Condition; Power Degradation

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