Photovoltaic Platform for Investigating PV Module Degradation

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Résumé en anglais	Photovoltaic research is oriented more and further towards study on PV modules degradation. The objective is to understand the different degradation modes of PV modules and associated factors. This paper presents a platform for measures dedicated to do a study related to degradation of electrical characteristics of the photovoltaic modules. It is installed on the site at University of Dakar in Senegal. This work proposes a method for standardization of the direct measures of the short-circuit current (Isc) and the open-circuit voltage (Voc) of PV modules. The approach used for the assessment of degradation of Isc and Voc involves a comparison between baseline values given by manufacturer and those measured in real operating conditions brought back in the standard test conditions (STC). Findings presented on degradation of Isc and Voc photovoltaic modules cover the first ten months of measurements from Mars to January. Degradation of short-circuit current is about 13% for the three days. The degradation of open-circuit voltage measured during the three days is 8%.
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