Monitoring Photovoltaic Parks for Damage Prevention and Optimal Operation

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***Abstract*— The effects of climate change due to global warming as a result of increased carbon dioxide emissions are beginning to become more and more visible due to the more frequent occurrences of extreme weather phenomena even in places considered to be quiet from this point of view. Expanding renewable energy production is one of the measures taken to reduce emissions and the development and installation of new photovoltaic (PV) parks is the result of these measures. Unlike in the case of other methods of electricity generation, those using photovoltaic cells must operate in open space in order to capture as much as possible of the solar energy. This has the disadvantage that solar panels are continuously exposed to meteorological phenomena. In this paper we propose a system which, in association with the devices of a PV system, will allow the collection and processing of different data for the identification of possible extreme meteorological phenomena and initiation of protection measures while alerting of the appropriate decision factors.**
***Keywords*—photovoltaic systems; damage prevention; data integration**

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