**Abstract**

Photovoltaic power plants PV are generally exposed to typical defects, which influence the productivity and efficiency of the stations.

In this work *Faouzi Harrou* & all the team, treat the defect in the direct current **DC** of the **PV** system with an approach based on modeling a surveillance system in two stages:

* A simulation model for the emission of the nominal evolution results of the PV network and the likelihood ration test GLR device for the verification of potential defects when using low frequency from 9.54 **Kwp**.
* Short circuit detection system, open circuit and partial shading defects.

The results of this research are perfectly consistent with the theoretical study carried out by the research team.

**References**

1. Harrou, Fouzi, Bilal Taghezouit, Benamar Bouyeddou, Ying Sun, and Amar Hadj Arab. 2021. “Fault Detection in Solar PV Systems Using Hypothesis Testing.” *IEEE International Conference on Industrial Informatics (INDIN)* 2021-July. doi: 10.1109/INDIN45523.2021.9557582.
2. (Harrou and all the team. 2021)