

Electrical Dault Detection of Photovoltaic System: A Short-Circuit Fault Case

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Abstract : This document presents a short-circuit fault detection process in a photovoltaic (PV) system. The proposed method is developed in MATLAB/Simulink. It determines whatever the size of the installation number of the short circuit module. The proposed algorithm indicates the presence or absence of an abnormality on the power of the PV system through measures of hourly global irradiation, power output, and ambient temperature. In case a fault is detected, it displays the number of modules in a short circuit. This fault detection method has been successfully tested on two different PV installations.

Keywords : PV system, short-circuit, fault detection, modelling, MATLAB-Simulink

Conference Title : ICEPES 2019 : International Conference on Electrical Power and Energy Systems

Conference Location : Copenhagen, Denmark

Conference Dates : June 11-12, 2019