

# Concentrated Photovoltaic Generation System Design

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## ABSTRACT

This paper presents a model implementation of a generalized photovoltaic module, and V-trough using Matlab/Simulink software package, which can be representative of PV cell, module and array for easy use on simulation platform. The proposed model is designed with a user-friendly icon and a dialog box like Simulink block libraries. This makes a concentrated PV model easily simulated and analyzed the impact on solar cell of temperature and sunlight intensity. Taking the effect of sunlight intensity and cell temperature into consideration, the characteristics of the output power and current of PV model can be simulated and optimized by using the proposed model. This enables the dynamics of PV power system to be easily simulated, analyzed, and optimized.

Keywords : photovoltaic module、V-trough、Matlab/Simulink

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