عنوان مقاله:

Modeling of Maximum Solar Power Tracking by Genetic Algorithm Method

محل انتشار:

کنفرانس بین المللی یافته های نوین پژوهشی درمهندسی برق و علوم کامپیوتر (سال: 1394)

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خلاصه مقاله:

This paper, firstly presents a model of solar cell is built using MATLAB SIMULINK and P-V, I-V & P-I characteristics are studied for various values of irradiance & a constant temperature, And then used of Genetic Algorithm (GA) for maximum power point tracking (MPPT) of Photovoltaic (PV) system using the direct control method. The main objective of this paper is to find out that optimal angle, which is used for positional control of solar module for optimal power tracking and also the main contribution of the proposed scheme is the elimination of PI control loop which normally exists to manipulate the duty cycle. Simulation results indicate that proposed controller outperforms the others method for all type of environmental conditions.

کلمات کلیدی:

Solar Cell, Maximum Power Point Tracking (MPPT), Genetic Algorithm Method (GA), MATLAB SIMULINK

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