عنوان مقاله:

Maximum Power Extracting in a Solar Power Plant with Multilevel Inverters

محل انتشار:

بیست و نهمین کنفرانس بین المللی برق (سال: 1393)

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خلاصه مقاله:

Multilevel inverters are one of the most popular and useful type among all and have lots of usage like less disturbance and the possibility to function at higher switching frequencies than ordinary two-Level inverters. They can be used at different applications like electronic derivers, wind turbines and solar plants.In order to feed the DC current produced by PV panels to the inverters, power electronic converters have to be used. The current – voltage characteristics of a photo voltaic (PV) array depends on the cell temperature and solar irradiation. Maximum power point of converter is the point that converter is working in the highest voltage. Nowadays different methods used to track this point, in this article, with the use of MATLAB simulation, we are aimed to simulate sepic converter which uses fuzzy methods to track the power point.Initially, with comparing different levels of CMLI and their THD analysis, we are aimed to find the best CMLI, then with sepic converter and a panel, simulate whole power plant.

کلمات کلیدی:

multilevel inverters, converters, fuzzy logic, PV,sepic converter