

عنوان مقاله:

Effect of dust accumulation on the power output of 1.2 MW PV power plant in Shiraz

محل انتشار:

بیست و پنجمین همایش سالانه مهندسی مکانیک (سال: 1396)

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خلاصه مقاله:

There is a great potential for solar power utilization in Shiraz, Iran. In this article a 1.2 MW PV power plant is studied for Shiraz using SAM software. The analysis is concerned power reduction due to soiling in Shiraz. Soiling loss is considered in the simulation in order to find significant impact of this factor and determine the losses occurred due to the soiling accumulated on photovoltaic modules. For the selected modules with considering Shiraz environment condition and solar radiation statistics the annual average performance ratio and capacity factor are found to be 0.8 and 19.2% respectively. The average annual energy yield of the plant is found to be 1697.25 kWh/kWp.

کلمات کلیدی:

Dust accumulation - Power output - Solar photovoltaic - Solar power plant - Performance analysis

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