

## عنوان مقاله:

(The assessment and experimental study of photovoltaics panel by spraying water (case study: Kerman, Iran

## محل انتشار:

دو فصلنامه تجهیزات و سیستم های انرژی، دوره 8، شماره 4 (سال: 1399)

تعداد صفحات اصل مقاله: 11

## نویسندگان:

Ali Pagodaripour - *Department of Mechanical Engineering, Faculty of Shahid Chamran, Kerman Branch, Technical and Vocational University (TVU), Kerman, Iran*

Amir Ghasemkhani - *Department of Mechanical Engineering, Faculty of Engineering, University of Sistan and Bluchestan, Zahedan, Iran*

Hossein Ghazizade-Ahsaei - *Department of Mechanical Engineering, Faculty of Shahid Chamran, Kerman Branch, Technical and Vocational University (TVU), Kerman, Iran*

Amin Namjo - *Islamic Azad University-Kerman Branch, Kerman, Iran*

## خلاصه مقاله:

Today, utilizing renewable and clean sources of solar energy by solar systems is continuously increasing. Given that the output power of solar cells is dependent on radiation intensity, temperature, and voltage of the terminal, controlling their performance in order to maximum absorbed power has high importance. The high photovoltaic temperature in hot seasons leads to reduce panel power. Therefore, the water spraying on the photovoltaic panel was implemented on the photovoltaic panel. The effect of spraying water on the photovoltaic panel showed that spraying water on the panel during a warm day can significantly improve the panel's power. In this work, non-potable water (green space irrigation) has been used to cool and clean the photovoltaic panel. Reducing the price of photovoltaic systems by using fewer panels due to achieved of the panels to the more power is another significant advantage of spraying water on the photovoltaic panel. Results show that the efficiency of the experimented system increased by ۲۰%.

## کلمات کلیدی:

Renewable Energy, Photovoltaics System, Solar Energy

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1221219>

