

# Infrared for photovoltaic panels

How infrared images can be obtained from a photovoltaic power plant?

Infrared images can be get by equipped drones of photovoltaic (PV) power plants, which can be used to analyze abnormal situation of the PV panel. However, infrared images are easily affected by external factors during the imaging process.

Can infrared images improve the integrity of photovoltaic panels?

The experimental results show that the proposed algorithm can effectively enhance the visual effect of infrared images, and then improve the integrity of photovoltaic panels in manually labeled images and the detection accuracy of photovoltaic panels.

Can infrared image enhancement be used to detect PV panels?

As can be seen from the table, when the model uses the IHFC-enhanced dataset, the F1-value increased by 12%, indicating that the dataset is more suitable for the detection of PV panels. This paper proposes an infrared image enhancement for PV panels based on improved homomorphic filtering and CLAHE.

Can a new infrared algorithm improve the brightness of PV panels?

As shown in Table 1, the AG and contrast of the image enhanced by the proposed algorithm are 0.7 and 2.8 higher than those of the original image, indicating that the proposed algorithm can effectively improve the brightness and details of the infrared image of PV panels.

What are the advantages of infrared (IR) imaging for PV modules?

g techniques, which identify faults and problems developing with PV modules. The use of infrared (IR) imaging for the evaluation of PV modules has many advantages. First of all, a great number of failures developed on PV modules can be detected

Can Homomorphic filtering improve infrared image enhancement for PV panels?

This paper proposes an infrared image enhancement for PV panels based on improved homomorphic filtering and CLAHE. Firstly, in order to improve the overall brightness and contrast of the image, a homomorphic filtering algorithm based on the improved transfer function is proposed.

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