

To this end, we utilize state-of-art deep learning-based image classification models and evaluate them on a publicly available dataset to identify the one that gives maximum classification ...

Photovoltaic (PV) power generation has become one of the key technologies to reach energy-saving and carbon reduction targets. However, dust accumulation will significantly affect the ...

Disclosed is a portable folding solar power generation cloth bag, comprising: a left lining plate (3) and a right lining plate (4) fixed above a lower cloth cover (1), the left lining plate...

The calculator uses the National Solar Radiation DataBase (NSRDB) to retrieve the environmental data related to the desired location and the other user-defined input to calculate the expected monthly or ...

This paper investigates the power generation performance of PV modules in a highly polluted environment, focusing on the effect of dust deposition on PV modules.

The Distributed Generation Market Demand (dGenTM) model forecasts adoption and operation of DERs at high spatial fidelity for power system planning in the United States or other ...

In this paper, a finite element model was performed for the assessment of the module's deterioration under cyclic load based on the stress-life curves of each material obtained experimentally...

Techno-economic analysis of a renewable energy hybrid system to help power a reverse osmosis water treatment plant in a remote island in the British Virgin Islands

The LGBM model demonstrates excellent performance in capturing complex patterns and handling nonlinear relationships, making it well-suited for forecasting tasks in solar power generation.

In this paper, we develop a model to forecast the output power with respect to variables of cleaning, wind, humidity and temperature. The result shows that it is possible to develop a model to ...

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