

This paper proposes a model called X-LSTM-EO, which integrates explainable artificial intelligence (XAI), long short-term memory (LSTM), and equilibrium optimizer (EO) to reliably forecast solar power ...

temperature has a great influence on the power generation efficiency, the solar panel is cooled while ensuring the maximum efficiency of the solar panel to ensure that it operates in an ...

Where  $\eta_1$  is the power generation efficiency of the PV panel at a temperature of  $T_{cell}$ ,  $\tau_1$  is the combined transmittance of the PV glass and surface soiling, and  $\tau_{clean}$  is ...

efficiency [4]. The implementation of Optimal Solar Panel Tilt Angle in various country has been implemented by some researchers for China, Pakistan, and also United Arab Emirates such ...

A hybrid renewable energy source (HRES) consists of two or more renewable energy sources, such as wind turbines and photovoltaic systems, utilized together to provide increased system efficiency ...

1 Introduction. Solar energy is inexhaustible and one of the cleanest renewable sources of energy. The solar power in the form of irradiance trapped by the earth is  $1.8 \times 10^{17}$  ...

This algorithm was successful in identifying the most important features that affected solar power generation, including weather conditions, time of day, and solar panel tilt ...

DOI: 10.1016/J.JCLEPRO.2021.126391 Corpus ID: 233555224; Investigation of the Dust Scaling Behaviour on Solar Photovoltaic Panels @article{Liu2021InvestigationOT, title={Investigation ...

The characteristic analysis of the solar energy photovoltaic power generation system B Liu<sup>1</sup>, K Li<sup>1</sup>, D D Niu<sup>2,3</sup>, Y A Jin<sup>2</sup> and Y Liu<sup>2</sup> 1Jilin Province Electric Research Institute Co. LTD, ...

Web: <https://www.gmchrzaszcz.pl>