Photovoltaic panel defect dataset

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The images in the dataset capture different states of solar cells and can be used in developing computer vision models aimed at identifying anomalies and defects that affect the performance of solar panels.

This dataset contains labeled images of photovoltaic (PV) panels across 6 defect classes. The dataset was created as part of an educational and research project to compare ...

607 open source Defects images and annotations in multiple formats for training computer vision models. solar-panel-defects (v4, 2025-07-02 5:41pm), created by Defect detection in solar ...

To this end, we examined their performance results via training on three datasets. The first dataset includes 191 thermal images with an image size of 200 × 160 pixels to identify a cell, ...

Description The PVMD dataset has 3-category of 1000 images, which includes both permanent and temporal anomalies in solar cells of PV module such as hotspots, cracks, and shadings.

This repository provides a dataset of solar cell images extracted from high-resolution electroluminescence images of photovoltaic modules. The dataset contains 2,624 samples of ...

This dataset presents the performance characteristics of photovoltaic (PV) panels under various fault conditions, including discoloration, cracks, and partial shading.

Training and testing on a self-constructed dataset comprising various types of PV panel defects demonstrates the effectiveness of the proposed method.

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