

The main purpose of this study is to evaluate the feasibility to use Unmanned Aerial Vehicle (UAV) technology for solar panel applications and to propose a reliable, economical and fast method of ...

The upper left corner of Figure 1 shows a UAV moving along the PV rows in a boustrophedon way. The UAV moves from PV start to PV end along a PV midline. Then, it "jumps" to the next PV row, and it starts moving ...

As commented before, this step is performed based on the real size of a PV panel. In this case, a PV panel has a size of 2 × 1 m. Appl. Sci. 2020, 10, 5948 12 of 18 Figure 12. Perspective ...

Unmanned aerial vehicles (UAVs) have often been used to monitor PV plants at a local scale (<1 km²) [19][20][21][22][23][24][25][26][27]. Several studies have been proposed aiming to ...

PV end, a point on the PV midline that identifies the end of the PV module row. PV start, a point that identifies the start of the new PV module row, whose position is computed with respect to ...

Its aim consists in the installation of solar photovoltaic panels in the structure of a UAV, with the objective of studying being its influence on the vehicle's time of flight. ... To guarantee the ...

The panel area extraction algorithm developed in this paper has a process of four stages, as described in Fig. 2. Firstly, candidates of the photovoltaic panel boundaries are extracted. To determine the edges of the photovoltaic panels, ...

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