

# Workshop Agenda

## UAV BASED DECISION MAKING AND MODULAR APPROACH TO SUPPORT PV PLANT DIAGNOSIS USING EL, RGB, IRT IMAGERY, CORRELATED WITH ELECTRICAL DATA ANALYSIS AND ADVANCED REPORTING AND GEOVISUALIZATION (AID4PV)

<b>Date:</b>	Wed, 29 <sup>th</sup> November 2023
<b>Time:</b>	10:00 – 12:00 am (EET - CY time)
<b>Location:</b>	Online Workshop – ZOOM – Register beforehand via the link <a href="#">here</a> , to get access to the workshop and receive the connection details.
<b>Hosted by:</b>	University of Cyprus (UCY)
<b>Moderator:</b>	Andreas Livera (University of Cyprus – PV Technology Laboratory)

**Background:** AID4PV was initiated to develop an unmanned aerial vehicle (UAV) platform for decision-making and modular approach to support photovoltaic (PV) plant diagnosis. The UAV platform incorporates EL, RGB & thermal sensors, advanced computing, decision-making and geolocation capabilities, and it combines image processing with electrical data analytics. By processing the acquired images and data, near real-time fault detection is achieved, leading to time- and cost-efficient PV plant diagnosis. The system is controlled by a user-friendly geo-visualization interface.

This workshop will provide technical information in the field of operation, inspection and diagnosis of PV plants. Emphasis will be given to the diagnosis of PV failures using the UAV platform.

The workshop is intended for local and international partners, researchers and stakeholders in the PV energy sector. The participants will get the required technical background and in-field knowledge of the work carried out in the **AID4PV** project.

*The project is supported under the umbrella of SOLAR-ERA.NET Cofund 2 Additional Joint Call by the Centre for the Development of Industrial Technology (CDTI, IDI-20210170) in Spain, the General Secretariat for Research and Technology (GSRT, T12EPA5-00042) in Greece and the Research and Innovation Foundation (RIF, P2P/SOLAR/1019/0012) in Cyprus. SOLAR-ERA.NET Cofund 2 Additional Joint Call is supported by the European Commission within the EU Framework Programme for Research and Innovation HORIZON 2020 (Grant Agreement N° 786483).*

## Workshop Agenda

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<b>10:00</b>	<b>10:05</b>	<b>0:05</b>	<b>Welcome</b> <i>Welcome by Andreas Livera - Principal Investigator (University of Cyprus)</i>
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<b>10:05</b>	<b>10:50</b>	<b>0:45</b>	<b>Presentation and activities by the consortium members</b>
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<b>10:05</b>	<b>10:20</b>	<b>0:15</b>	<b>PV Technology Laboratory, University of Cyprus</b> <i>Presentation by Odhisea Gazeli (University of Cyprus)</i>
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<b>10:20</b>	<b>10:35</b>	<b>0:15</b>	<b>TSK Information Technologies Division</b> <i>Presentation by Juan Luis Carús (TSK)</i>
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<b>10:35</b>	<b>10:50</b>	<b>0:15</b>	<b>UAVs &amp; Space Informatics, Technical University of Crete</b> <i>Presentation by Panagiotis Partsinevelos (Technical University of Crete)</i>
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<b>10:50</b>	<b>11:45</b>	<b>0:55</b>	<b>Insights and results of the AID4PV project</b>
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<b>10:50</b>	<b>11:10</b>	<b>0:20</b>	<b>Failure diagnosis in PV systems using images and electrical signals</b> <i>Presentation by Andreas Livera (University of Cyprus)</i>
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<b>11:10</b>	<b>11:30</b>	<b>0:20</b>	<b>UAV platform description and capabilities for inspection and diagnosis</b> <i>Presentation by Juan Luis Carús (TSK)</i>
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<b>11:30</b>	<b>11:45</b>	<b>0:15</b>	<b>Demonstration of the UAV platform in operational environment</b> <i>Presentation by George Petrakis (Technical University of Crete)</i>
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<b>11:45</b>	<b>11:55</b>	<b>0:10</b>	<b>Questions/Open discussion</b>
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<b>11:55</b>	<b>12:00</b>	<b>0:05</b>	<b>Workshop Summary and Closing Remarks</b>

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## Project Information

The **AID4PV** project started in June 2021. The project was coordinated by TSK Information Technologies Division and the partners are the PV Technology Laboratory - FOSS Research Centre for Sustainable Energy of the University of Cyprus and the Technical University of Crete.

## Consortium



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