



WG 1: PV Monitoring

Program for WG1 Workshop

Scheduled from 26 February (13:30-17:00) to 27 February (9:00-17:00)

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Description

Working group 1 on PV monitoring is organizing several sessions as part of the PEARL-PV workshops in Lisbon. Overarching topic is *“Review of PV performance data and analysis”*.

Selected WG1 participants and others working in the field of PV monitoring and performance analysis will present their most recent work. This includes work in progress as we would like to identify potential topics for collaboration, which could materialize in Short Term Scientific Mission proposals.

Tuesday 26 February 2019 (13:30-17h)

13:30-14:30 Plenary meeting, **room C6.2.56**

14:30-15:00 Coffee/tea break

WG1 meeting, room C1-FFCUL

15:00-15:10 Welcome and introduction to WG1 meeting,
Wilfried van Sark, Utrecht University

15:10-15:30 The Pearl-PV databank
Wilfried van Sark, Utrecht University

15:30-15:50 Apparent performance ratio of photovoltaic systems - a methodology for evaluation of photovoltaic systems across a region
Kristijan Brecl, M. Topič, University of Ljubljana

15:50-16:00 Photovoltaic systems monitoring solutions,
Kristijan Brecl, M. Topič, University of Ljubljana

16:00-16:30 Performance and degradation rates of CIS and c-Si photovoltaic systems in tropical climate
Kun Kunaifi, Angele Reinders, Dimas Kaharudin, Muhammad Kirjono, University of Twente

- 16:30-17:00 On the search for representative characteristics of PV systems: Data collection and analysis of PV system azimuth, tilt, capacity, yield and shading
Wilfried van Sark, Sven Killinger, David Lingfors, Yves-Marie Saint-Drenan, Panagiotis Moraitis, Jamie Taylor, Nicholas Engerer, Jamie M. Bright
- 17:00-17:15 Wrap up, commonalities
Wilfried van Sark, Utrecht University

Wednesday 27 February 2019 (9:00-17:00)

WG1 meeting, room C1-FFCUL

- 9:00-9:30 Review of PV performance data and analysis: current status and future developments
Jonathan Leloux, UPM
- 9:30-10:00 UAV-Based Autonomous Monitoring System for large-scale Photovoltaics (PV) Plants
Mohammadreza Aghaei, Fraunhofer ISE
- 10:00-10:30 Monitoring PV Power Plants with Low Power Wireless Sensor Networks
Pascal Koelblin, Markus Schubert, University of Stuttgart
- 10:30-11:00 PV system performance evaluation by clustering production data to normal and non-normal operation.
Odysseas Tsafarakis, Kostas Sinapis, Wilfried van Sark
- 11:00-11:30 Coffee/tea break
- 11:30-12:00 Improving the performances of PV panels using hybrid systems
Daniel T. Cotfas, Transilvania University of Brasov
- 12:00-12:30 CPVs and hybrid systems in concentrated light
Petru A. Cotfas, Transilvania University of Brasov
- 12:30-13:30 Lunch break
- 13:30-14:00 Monitoring and performance of an PV EV charging station
Ayda Esfandyari, DIT
- 14:00-15:00 Discussion on developing ideas for collaboration and defining Short Term Scientific Missions for WG1
Wilfried van Sark, Utrecht University
- 15:00-15:30 Coffee/tea break
- 15:30-17:00 Plenary meeting, **room C6.2.56**

Thursday 28 February 2019 (9-17h)

Excursion

Workshop results

At the end of the workshop we will have collected and discussed ideas for collaboration. One potential outcome is the organization of a review paper on PV performance practice within Europe.