

# Data monitoring & analytics for better PV performance and grid integration

Pearl PV Workshop organized by WG5

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# 1. Introduction

Because of the continuing Covid pandemic, COST Action PEARL-PV took the initiative to organize monthly online workshops in the period from November 2020 until April 2021, inviting participants from within and outside the Action to actively engage in the various research topics that this Action covers. In this context, Working Group 5: "PV in grids" is organizing a workshop on **"Data monitoring & analytics for better PV performance and grid integration"**. These presentations will cover fault detection for large-scale PV plants and small-scale PV systems, PV performance analysis, soiling losses assessment, PV power degradation, solar resource data and PV grid integration. The workshop will offer a series of presentations on trending topics from outstanding experts from PV research and industry.





## 2. Agenda

	<b>GENERAL</b>	
9:00	Opening of the workshop	Angele Reinders (University of Twente, Netherlands)
9:10	Workshop introduction	Jonathan Leloux (Polytechnic University of Madrid, Spain)
	<b>PV PERFORMANCE</b>	
9:20	Impact of performance and degradation on PV plants profitability	Elina Bosch (Becquerel Institute, Belgium)
9:40	Data analytics applied to monitoring and field data for performance optimization in large PV plants	Rodrigo Moretón (QPV, Spain)
10:00	Optimization and Economics of Seasonal Soiling Mitigation for Utility Scale PV Systems	Leonardo Micheli (University of Jaén, Spain)
10:20	PV Performance Assessment of a very large portfolio using minimal data	Julián Ascencio (3E)
10:40	Advanced performance assessment and shadow detection techniques for residential PV systems	Odysseas Tsafarakis (University of Utrecht, Netherlands)
	<b>PV GRID INTEGRATION</b>	
11:20	Real-Time Compensation of Voltage Fluctuations in LV Networks	John Licari (University of Malta, Malta)
11:40	Potential for collective self-consumption in local energy communities	Rodrigo Amaro e Silva (University of Lisbon, Portugal)
12:00	PV as an element in a larger (smart) energy system	Gerwin Hoogsteen (University of Twente, Netherlands)
	<b>CLOSING</b>	
12:20	Plenary summary and future work	Jonathan Leloux (Polytechnic University of Madrid, Spain)