2024 European PVPMC Workshop Program (v9)

Date:	**August 21-23, 2024**			
Site:	**IDA Conference, Copenhagen, Denmark**		**Address: Kalvebod Brygge 31, 1780 Copenhagen V**	
Day 1		**Wednesday, August 21, 2024**		
8:00	1:00	Registration, check-in and light brekfast		
9:00	0:10	Welcome from DTU	Adam R. Jensen	DTU
9:10	0:10	Welcome from IEA PVPS Task 13 and Sandia National Laboratories	Joshua Stein	Sandia National Laboratories
Session 1		**Monitoring and Underperformance**	**Chair: Marios Theristis**	Sandia National Laboratories
9:20	0:15	Diagnosis of under-performing power plants using SolarGEMINI	Clara Fernandez	DNV
9:35	0:15	Oversizing & Grid Constrains - Impacts in PV Modelling and KPI Guarantees	Giuliano Luchetta Martins	Statkraft
9:50	0:15	Estimation of Energy Losses Due to Tracker Deviations in PV Plants Based on Monitoring Data	Julien Deckx	3E
10:05	0:15	Modern Day Asset Management Challenges and Solutions	Constantinos Peonides & Ivo Stroeken	MEGGITT & Solora
10:20	0:15	Monitoring and underperformance predictive analytics for different PV technologies on utility-scale level	Juergen Sutterlüti	Gantner Instruments
10:35	0:15	From Data to Actions: case studies on closed-loop PV operations	Julian Ascencio Vasquez	Univers
10:50	0:20	Discussion		
11:10	**0:45**	**Networking Break**		
Session 2		**Modeling**	**Chair: Adam Jensen**	DTU
11:55	0:15	Implementing Sub-Hourly Clipping Correction in Pvsyst	Michele Oliosi	PVsyst
12:10	0:15	The importance of sub-hourly input data in PV systems simulation using satellite-based solar model data	Jozef Rusnak	Solargis
12:25	0:15	PV Atlas Project Update	Kevin Anderson	Sandia National Laboratories
12:40	0:15	Meteonorm Version 9.0	Jan Remund	Meteotest AG
12:55	0:15	Q&A		
13:10	**1:00**	**Lunch**		
Session 3		**Poster Session**		
14:10	1:30	Poster Sesison + Networking		
Session 4		**PV Modeling Derates**	**Chair: Kevin Anderson**	Sandia National Laboratories
15:40	0:15	Evaluation of Snow Losses in a Vertical Agrivoltaic and Ground-mounted Fixed-tilt Bifacial PV Systems	Silvia Ma Lu	Mälardalen University
15:55	0:15	A Hybrid PV Snow Loss Model Combining Deep Learning and Analytical Models	Shuo Wang	Turku University of Applied Sciences
16:10	0:15	Analyzing performance and refining the wiring of underperforming long-running solar power plants	Žiga Miklič	University of Ljubljana
16:25	0:15	Inverter based power loss detection due to inverter downtime and snow conditions	Nikola Hrelja	Total Energies

16:40	0:15	New python library for soiling modelling	Thore Müller	PVRADAR Labs GmbH
16:55	0:15	Prediction of Soiling on PV Sites and Adaptation of Cleaning Strategies Using Machine Learning	Yaman Al-Riyalat	BayWa r.e. Solar Projects GmbH
17:10	0:20	Q&A		
17:30	0:45	Break		
18:15	**1:25**	**Scenic Boat Tour**		
19:40	**3:00**	**Welcome Dinner and Reception (open to all participants)**		

Sandia National Laboratories | EUROPEAN ENERGY | DTU | IEA PVPS | U.S. DEPARTMENT OF ENERGY | PVPerformance MODELING COLLABORATIVE

Day 2		**Thursday August 22, 2024**		
8:30	0:30	Registration, check-in, and light breakfast		
Session 5		**Taxonomy and KPI Harmonization**	**Chair: Marios Theristis**	Sandia National Laboratories
9:00	0:15	Data-informed solar plant taxonomy and ML implementation	Emma Goss	Green Power Monitor, a DNV Company
9:15	0:15	Orange Button and PVCollada	Clifford Hansen	Sandia National Laborarories
9:30	0:15	Trust PV and SuperNova	Sandra Gallmetzer & Mousa Sondoqah	EURAC
9:45	0:15	IEA Task 13 KPIs	Julien Deckx	3E
10:00	0:25	Discussion		
10:25	**0:45**	**Networking Break**		
Session 6		**Agrivoltaics**	**Chair: Joshua Stein**	Sandia National Laboratories
11:10	0:15	APyV: Designing Agrivoltaic Facilities based on Crop Needs	Leonhard Gfüllner	Fraunhofer ISE
11:25	0:15	Vertical Agrivoltaics system: What solar radiation to share between agriculture and PV modules?	Arthur Poquet	Total Energies
11:40	0:15	Enhancing Agrivoltaics Synergies Through Tracking Optimization	Maddalena Bruno	Fraunhofer ISE
11:55	0:15	Global Energy assessment of the potential of photovoltaics for agrivoltaic applications	Eduardo Fernandez	University of Jaen
12:10	0:15	Highlights from IEA PVPS Task 13's New Report on Bifacial Tracking Systems	Nicholas Riedel-Lyngskær	European Energy
12:25	0:25	Discussion		
12:50	**1:00**	**Lunch Break**		
Session 7		**Curtailment**	**Chair: Jürgen Sutterlüti**	Gantner Instruments
13:50	0:15	Curtailment: Indroduction and Perspectives	Jürgen Sutterlüti	Gantner Instruments
14:05	0:15	PV Curtailment Crisis in Cyprus: Mitigating Curtailment Issues Through Data-Driven Algorithms	Andreas Livera	UCY
14:20	0:15	Curtailment as imposed by intrinsic and extrinsic factors – a financial impact assessment	Jan Vedde	European Energy
14:35	0:15	Curtailment in energy system modeling for 100% renewable energy systems	Christian Breyer	LUT University
14:50	0:15	Q&A		
15:05	**0:10**	**Break**		
Session 8		**PVLIB Users Group Meeting**		

15:15	0:30	User group meeting with updates to pvlib python	Adam R. Jensen, Kevin Anderson, Clifford Hansen	
15:45	2:00	pvlib-python tutorial		
17:45		**End of Workshop**		

Day 3	**Friday August 23, 2024**
	Technical tour to DTU Risø test site
9:00	Meet for bus at Kristian Erslevs Gade 2
14:00	Arrival back in Copenhagen

	Poster Presentations		
1	Analyzing Curtailment in Wind-Solar Hybrid Plants: A Pre-Construction Comparative Study of 15-Minute vs. 1-Hour Generation Data	Luca Vignoni	DNV
2	Validation of the Optimal Performance Assessment Methodology for Photovoltaic Plants in the Context of EPC Contracts in Colombia.	Rafael Avila Naranjo	ICREA S.A.S
3	PV panel surface calculations for PV penetration of urban zones	Susanne Weyand	Mines Paris
4	Refining Wind-Solar Hybrid Plant Production Estimates with Sub-Hourly Time Series Data	Luiz Reis	Casa dos Ventos
5	A new robust methodology for the identification of parameters on the electrical response of photovoltaic systems through the application of polar coordinates	Carlos Cardenas-Bravo	Univ. Grenoble Alpes
6	High temporal and spatial resolution simulation of solar hybrid power plants – photovoltaic and concentrated solar power	Ildefonso Muñoz Morales	Fundacion CENER
7	Data-driven forecasting and control of solar, wind, and storage on an electrical grid via convex optimization	Mehmet Giray Ogut	Stanford University
8	Power trend assessment of a large worldwide PV dataset	Bernat Nicolau	DNV
9	Seasonality investigation for performance loss rate analysis	Loic Guillemot	TotalEnergies
10	SolarStations.org - A global catalog of high quality solar irradiance monitoring stations.	Ioannis Sifnaios	DTU
11	Comparison of Satellite Databases and Ground Measurements for Estimating Relevant Climatic Variables in Photovoltaic Production in Colombia	Laura Lizarazo	Ingeneria Creativa SAS
12	The Fourth Edition of the Best Practices Handbook for Solar Resource Data: An Overview	Jan Remund	Meteotest AG
13	Benchmarking models for IV curves of bifacial PV modules and strings	Martin Bartholomäus	DTU
14	Uncertainty Estimation in Hourly Photovoltaic AC Power with a Focus on Solar Plane-Of-Array Irradiance	Alexandre Mathieu	Heliocity / Université Savoie Mont Blanc
15	Shaded fraction and backtracking in single-axis trackers on rolling terrain	Adam Jensen & Kevin Anderson	DTU & Sandia National Laboratories