15th SOPHIA PV-Module Reliability Workshop

Agenda



DTU Risø Campus, (Denmark), 29.-30.04.2025

Tuesday, April 29th

8:30 - 9:00	Registration			
09:00 - 09:15	Welcome	Karl-Anders Weiß, (ISE)		
09:15 - 10:45	Block I "Field experience and inspection methods"			
	 Field experience of single-axis solar trackers 	Nicholas Riedel-Lyngskær, (European Energy)		
	 Field imaging inspection methods and tools for PV plants 	Sergiu Spataru, (DTU)		
	 Utilization of smart string inverters for advanced inspection and monitoring of PV systems 	Lukas Koester, (EURAC)		
10:45 - 11:15	Coffee Break			
11:15 - 12:45	Block II "Lightweight glass-free modules"			
	 Characterization and reliability test protocols for lightweight/glass-free PV components and modules 	Gabi Eder, (OFI)		
	 Reliability tests and certification of customized flexible glass-free PV modules 	Piero Spinelli, (TNO)		
	 Mechanical reliability studies on Glass based and lightweight PV modules at TNO 	Jan Kroon, (TNO)		
12:45 - 14:00	Lunch Break			
14:00 - 15:30	Block III "Mechanical Stabability"			
	• UTG Integration in CIGS PV Modules: Boosting Durability and Performance	Nikolina Pervan, (PCCL)		
	 Mechanical module stability and reliability of eco-designed PV modules 	Timea Béjat, (CEA liten)		





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	•	Tbd.	Tbd.
15:30 – 16:00	Coffee	e Break	
16:00 - 17:00 Block IV Webinar TASK13: "Strategies for Addressing Important Degradation and Failure Causes of Current Module Types"			
	•	Introduction	Karl-Anders Weiß, (ISE)
16:00 - 16:20	•	What can we learn from the comparison of glass breakage between Lab and Field?	Jochen Markert, (ISE), Marc Köntges, (ISFH)
16:20 – 16:40	•	How to handle UVID for TOPCon and SHJ modules	Laura S. Bruckman, (CASE), Ina Martin, (CASE)
16:40 - 17:00	•	How to deal with cold solder joints in JB of current module designs	Marc Köntges, (ISFH), Jay Lin, (PV GUIDER)
17:00	End o	f Day 1 and Conference Dinner	

Wednesday, April 30th

	• / •			
08:30 - 09:00	Registration			
09:00 - 10:30	Block V "Discussion Round"			
	• Reliability/certification of lightweight modules /image	Ingrid Hädrich, (ISE)		
	• Reasonable lifetime to aim for: 15 or 50a??	Karl-Anders Weiß, (ISE)		
	Future of field inspection	Sergiu Spataru, (DTU)		
10:30 - 11:00	Coffee Break			
11:00 - 12:30	Block VI "Modelling"			
	 From Modeling to Field Validation: Enhancing PV Performance and Reliability 	Yaman Al-Riyalat, (BayWa)		





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•	Benchmarking Power Loss Simulation
	Models for Cracked Photovoltaic Cells
	Using Electroluminescence Images: The
	Effect of Daylight and Image Resolution

Rodrigo Del Prado Santamaria, (DTU)

 Long-Term Evaluation of Outdoor Performance and Degradation of Perovskite Modules in Various Climates Sujith Vishwanathreddy, (IMEC)

12:30 - 13:00 Plenary Discussion & Sum up

End of Workshop

13:00 LAB-Tour (optional)

Until 4:00 pm

