10th edition : January 24-28, 2022

Solar resource science for photovoltaic power plants

From feasibility to operating sales

Overview of the program :

- Science and techniques related to solar radiation
- Methodology of solar radiation databases derived from satellite imagery
- GIS and site prospection
- Ground sensors: uses of in-situ measurements
- Solar radiation from numerical meteorological models
- Supplementing ground data with satellite data, satellite-based method limitations
- Validation and calibration
- Forecast applied to solar radiation

Location : MINES ParisTech, Sophia Antipolis, France.

Co-organized with :

MINES ParisTech
Center for Observation, Impacts, Energy (O.I.E.)
1 rue Claude Daunesse, BP 207
06904 Sophia Antipolis Cedex - France

TRANSVALOR S.A.
E-Golf Park
950 avenue Roumanille
06904 Sophia Antipolis cedex - France

Transvalor is registered in the Public List of Training Organizations (L.6351-7-1 of the French Labor Code): 110 Multi-scientific specialties; number 061363575.

Registration fees:

- 350 € for the main set of lectures from Monday 24th to Thursday 27th (including catering, lunches and Wednesday 26th cultural event and dinner).
- 500 € for the optional master class on Friday 28th. Special rate for academics.

Registration contact : Mathilde MARCHAND LASSERRE at support-sales@soda-is.com

Program

Monday January 24th, 2022

14:00 – 16:00	Basics in solar radiation - Practical work : sun position for true north
16:00 – 16:30	Coffee break
16:30 – 17:30	Basics in GIS
17:30 – 18:30	Meet the experts
18:30	End of session

Tuesday January 25th, 2022

08:30 – 09:00	Welcome coffee - Registration
09:00 – 10:00	Presentation of MINES ParisTech and Transvalor Introduction of posters of OIE PhD students – Stand SoDa Products & Services
10:30 – 11:00	Coffee break – poster session
11:00 – 12:00	Environmental assessment of solar project
12:00 – 14:00	Lunch
14:00 – 15:00	Site prospection using existing atlases (IRENA, PACA, Urban solar cadasters…)
15:00 – 16:00	In-situ measurements
16:00 – 16:30	Coffee break – poster session
16:30 – 17:00	Using existing in-situ pyranometric measurements
17:00 – 17:30	Using existing measuring stations from a nearby network
17:30 – 18:30	Meet the experts
18:30	End of session

Wednesday January 26th, 2022

09:00 – 10:30	Practical work: Analyze cases of measurement failures
10:30 – 11:00	Coffee break – poster session
11:00 – 12:00	Solar radiation from meteorological models
12:00 – 14:00	Lunch
14:00 – 15:00	Solar radiation from satellite data
15:00 – 16:00	Methodology of solar radiation databases (HelioClim, CAMS radiation and CAMS McClear services)
16:00 – 16:30	Coffee break
16:30 – 17:30	Validation and calibration
17:30	End of session

Cultural event - Dinner in Antibes

Thursday January 27th, 2022

09:00 – 10:00	Analyze of long-term solar resource – variability and representativeness (TMY)
10:00 – 11:00	Exchange, discussion, and book signing with Lucien Wald – Coffee break
11:00 – 12:00	Monitoring an installation with satellite irradiation data: the challenge to deal with high resolution spatial and temporal variability
12:00 – 14:00	Lunch
14:00 – 15:00	Forecast applied to solar radiation
15:00 – 18:00	European projects : PAREO and e-shape
18:00	End of session

Friday January 28th, 2022

	Parallel practical work sessions	
09:00 – 12:30	Jupyter Notebook for solar processing Prerequisite: Python knowledge	QGIS discovery and use for solar potential mapping
12:30 – 14:00	Lunch	
14:00 – 16:00	Jupyter Notebook for solar processing Prerequisite: Python knowledge	QGIS discovery and use for solar potential mapping
16:00	End of session	