Servicios a empresas Laboratorio Solar

Service	Software/Equipment	Capabilities	Sector
Solar Data Analysis	e.g. Python	Big data Performance analysis for utility scale power plants; Degradation studies; Techno-economic analysis of soiling and cleaning optimization strategies ; Spatial and Temporal variability of PV performance	Renewable Energy; PV sector
Soiling Studies	e.g. Soiling Chamber	Anti-soiling coatings testing; Artificial Soiling simulation	PV module manufacture; Solar Glass industry
Thermal Analysis	e.g. COMSOL Multiphyscics	Prediction of thermal behaviour in PV systems; Modelling of PV cooling system;	PV module manufacture; PV solar cell assembly
Thermal Characterization	IR lamps; Thermoelectric Heating/Cooling Station	Current, voltage and power temperature coefficients (IEC Standards 60891)	PV module manufacture; PV solar cell assembly
Indoor testing	Multiflash Solar Simulator; Continuos Solar Simulator, laser light source	Current-voltage characterization at standard test conditions (STC); Spectral response measurement	PV module manufacture; PV solar cell assembly, laser converters

Semiconductor Device Simulation	e.g. Silvaco TCAD	Design of solar cell architectures; Design of photovoltaic power converter architectures; Physical Study of solar cells; Physical Study of photovoltaic power converters; Optimisation of solar cells; Optimisation of photovoltaic power converters	CPV architectures; Solar cell design; Solar Energy
Data Analysis	e.g. Matlab	Data Analysis; Creation of small programs to evaluate electrical models; Creation of small programs to execute simulators as Silvaco TCAD;	Solar Energy
Design and engineering of photovoltaic systems	e.g. Phyton, PVGIS, Matlab, etc.	Design and performance evaluation of PV systems, including floating and agrivoltaics	Solar Energy