



# Solar Practitioner Program – 2 Days



Day 1			
Sl No	Head	Time	Description
1	Introduction, Key Drivers & Opportunities	9:00 am to 10:00 am	Introduction, Key Challenges and Drivers of Solar PV Market
2	Basics of PV & Solar PV System	10:00 am to 10:30 am	Different types of Solar PV system and block diagram of Off-grid PV System
	Tea Break	11:00 am to 11:30 am	
3	Solar Cells, Modules, Arrays	11:30 am to 1.00 pm	Solar cell structure, Study of datasheet, Array design, Module Quality Test and Key Performance Indicators
	Lunch Break	1:00 pm to 2:00 pm	
4	Inverters	2:00 pm to 3:00 pm	Inverter Basics, Type of Inverters, Data Sheet Introduction, Key Performance Indicators of Inverters, Design Problem of Inverters
5	Off Grid System - Batteries	2:30 pm to 3:00 pm	Battery Basics, Type of Batteries, Difference with Car Battery, Battery Data Sheet Terms/Comparison, Battery Key Performance Indicators, Design Problem
	Tea Break	3:00 pm to 3:30 pm	
6	Off Grid System - Charge Controllers & MPPT	3:30 pm to 4:30 pm	Charge Controller Need & Basics, Charging Curve for a Battery, Functioning including PWM, MPPT Charge Controller Basics, MPPT Algorithm Basics, Key Performance Indicators, Design Problem
7	Wires & Cables	4:30 pm to 5:00 pm	Basics, Wires used in industry, Design problem



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Day 2			
Sl No	Head	Time	Description
1	Site Design	9:00 am to 10:00 am	Site survey, Shading analysis, Structure analysis, Tools for site analysis, Solar tracking, Automated cleaning of panels
2	Electrical Design	10:00 am to 10:30 am	Basics of electrical design
	Tea Break	11:00 am to 11:30 am	
3	Advanced Electrical design – Off Grid System	11:30 am to 1.00 pm	Design of Grid Tied System using data sheet and selection of components
	Lunch Break	1:00 pm to 2:00 pm	
4	Advanced Electrical design – Grid Tied System	2:00 pm to 3:00 pm	Design of Grid Tied system using data sheet and selection of components
5	Remote Monitoring – Grid Tied and Off Grid System	2:30 pm to 3:00 pm	Remote Monitoring of Grid Tied System and Off-Grid Systems
	Tea Break	3:00 pm to 3:30 pm	
6	Case Study /Demo of Components / Site Visit	3:30 pm to 4:30 pm	Familiarization of components used in Solar PV and installation process
7	Session Summary and Feedback	4:30 pm to 5:00 pm	Basics, Wires used in industry, Design problem