



2 Day PV Theory and Installation Workshop

This 2 Day workshop is designed to teach Solar PV systems theory with hands-on practical. Focus is to equip participants with the PV field essentials.

Course binder, refreshment and lunch included in the course fee.

Audience

- Anyone - No pre-requisite or background

2 Day Outline

Day-1: 9:00 AM – 5:30 PM – Theory	Practical – Day-2: 9:00 AM – 5:30 PM
Part A – Basics/Review	Practical 1 – Part D
Electrical Concepts/Terminology	Equipment/Tools
PV System Terminology/Concepts	Key Components
PV Systems Types/Components	Modules Connections and Configurations
Sun and PV system	Shade analysis and optimization
Part B – Key Components - 1	Practical 2 – Part E
PV Modules	PV – Battery – Charger with Load
Battery	PV – Battery – Charger – Inverter with Load
Charger	Direct Coupled System
Part C – Key Components - 2	Practical 2 – Part F
Inverters	Ground Mount Installation
Mounting Systems	Roof Mount Installation
Miscellaneous	
Industry Practices	
Closing	

Workshop Instructor

Dr. Irtaza Syed, PhD, P. Eng., PMP, PVIP, CEA has modeled, simulated, designed, procured, managed, installed, tested and commissioned 100's of Megawatts of renewable energy systems in Canada, USA & Pakistan. Systems include Off-grid, On-grid and Hybrid residential, commercial, institutional and utility scale, ranging from few kW to few MW in size.

Dr. Syed has hand-on experience of the US National Electric, Canadian Electric and Pakistan Electric and Telecommunications Safety Codes. He is teaching these PV courses since 2011 and is very aware of the FIT/Net-Metering rules (Canada / USA / Pak) beside UL/CSA/IEEE/IET standards, LDC/DISCOs and Electrical Safety/Inspection Authorities requirements.

Dr. Irtaza Syed
 PhD, P. Eng., PMP, PVIP, CEA, MHDI
syed@solartraining.ca