

SOLAR TRAINING



Duration	21 days
Course Type	Regular / Fast Track / Weekend
Timing	Regular : 1.30 Hrs Fast Track : 2.00 Hrs Weekend : 4.00 Hrs
We Provide	<p>Common: Course Materials Troubleshooting/Installation Manuals & ID Card Worldwide Online Verification Certificate</p> <p>Job Support: Job Reference as per Job provider's requirement.</p> <p>Self Employment Whole Sale Materials Purchase Address</p>

CLASS	TOPICS
SESSION-1	INTRODUCTION 1. What is Renewable Energy? 2. Types of Renewable Energy (Bio-Mass, Bio-Gas, Wind, Solar Energy Hybrid & its Concepts) 3. Sun-Earth relationship & Sun Path
SESSION-2	4. What is Solar Energy? & it's Fundamentals 5. Overview of Solar Industry 6. Types of Solar Energy system (PV (Photovoltaic), Thermal) 7. Working functions of Photovoltaic Technology & Its Examples 8. Working Functions of Thermal Energy & its Examples 9. PV Systems On Grid and Off-grid
SESSION-3	10. Electricity Basics 1. What are Power, Voltage, Current, and Frequency? 2. Different types of Loads 3. Power Factors Explanation 11. Solar Installation Tools & Components
SESSION-4	12. Solar energy uses 1. Solar Electricity 2. Solar Heating 3. Solar Cooling 4. Solar Lighting 5. Solar advantages
SESSION-5	13. Solar Working Functions & Its Components. 1. Solar Panels 2. Solar Charge Controllers 3. Solar batteries 4. Solar Inverters (DC to AC Conversion) 5. Solar DC Loads (DC to DC Convertors, DC Lights, DC Fans, DC Motors & Etc) 6. Wiring & Constructions
SESSION-6	13.1:- SOLAR PANELS 1. What is Cell How to make a Cell? 2. What is Modules & How to make it? 3. What is Array & How to make it? 4. What is panels, How to build a panel (Video Explanation) 5. Types of panels 1. Mono crystal panels, 2. Poly (multi)crystal panels, 3. Thin film 6. Various Panel Images 7. What is Area Factor or Solar panel Generation Factor (PGF?) 8. Difference between Mono/Poly/Thin film solar panels
SESSION-7	9. What is Panel (Modules) specification? Watts, VOC, ISC, V-Nominal voltage, WP, V-Max, I-Max 10. System Components and Configurations 11. PV Systems Sizing 12. Solar Panel Calculations
SESSION-8	13.2 SOLAR CHARGE CONTROLLER 1. What is Solar Charge Controller? 2. How it's working

	<ul style="list-style-type: none"> 3. Block Diagram of Solar Charge Controller 4. Types of Charge Collectors (Monitors, Charges, Controller) 5. Charge controller available ratings 6. Solar Charge Controller Calculations
SESSION-9	13.3 SOLAR BATTERIES <ul style="list-style-type: none"> 1. What is battery & Its Working Functions? 2. Types of batteries (Tubular & SMF) 3. What is Design Factor of batteries? 4. Battery Available Sizes 5. Battery calculations
SESSION-10	13.4 SOLAR INVERTOR (DC to AC Conversion) <ul style="list-style-type: none"> 1. What is DC to AC CONVERTOR? 2. What is AC to DC CONVERTOR? 3. What is Invertors & Its types (Sign Wave & Square wave) 4. What is Solar Invertors? 5. Working Principles of Invertors 6. Different Power Ratings of the Invertors 7. House & Inverter Power factors values 8. Inverter Calculations
SESSION-11	13.5 Solar DC Loads (DC Lights, DC Fans, DC Motors & Etc) <ul style="list-style-type: none"> 1. What is Load (AC Load & DC LOAD?) 2. Types of Loads (Resistive load, capacitive load, Inductive Load) 3. Load list 4. How to Calculate Total Load. 6. DC Lighting Concepts 7. DC Solar Attic Fan Concepts 8. DC Motor Concepts
SESSION-12	13.6 SOLAR WIRING & CONTRUCTIONS <ul style="list-style-type: none"> 1. What is Solar Wiring? 2. Wires Specifications 3. How to Connect Solar PV Systems 4. Various panel Connection Diagram. 5. What is Site Survey? 6. What is Solar Mounting & options for Roof & Ground? 7. Various Mounting Models (Video) 8 How to assemble a Mounting (VIDEO) 9. Mechanical Integration 10. Operation, Efficiency & Testing 11. Factor Affecting Performance\
SESSION-13	<ul style="list-style-type: none"> 1. Panel Formula Calculations, 2. PV Panel Daily Power Produce Calculations, 3. Battery Size Calculations, 4. Inverter Calculations, 5. DC Supply watt Calculations, Determined power Consumption Demands for Total Appliances, Power Calculations for Home (1000 w)
SESSION-14	Power Calculations for 5 KW
SESSION-15	Power Calculations for Office 50 KW 24 Hrs
SESSION-16	Power Calculations for Plant 100 KW 24 Hrs
SESSION-17	Street lamp connection design Working Principles Components of the Street lamps (Panels Size, LED, battery, Charge Controller)

SESSION-18	Types of Industrial Connections 1. Stand Alone 2, OFF Grid 3. ON Grid Detailed Explanation of Stand Alone Connections Diagrams, Troubleshooting (Video Class)
SESSION-19	Detailed Explanation of OFF Grid Connections Diagrams, Troubleshooting (Video Class)
SESSION-20	Detailed Explanation of ON Grid Connections Diagrams, Troubleshooting (Video Class)
SESSION-21	PV Market Rate Analysis, Estimations Maintenance of PV Systems Troubleshooting of PV Systems Hands-on Training Full Practical's & Doubt Clearing

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