DEPARTMENT OF ELECTRICAL ENGINEERING

Training For students and entrepreneurs on Solar PV

Er. Mahesh P. Kawarkhe Government certified solar trainer and solar PV plant installer

A.Y. 2019-20

SANJEEVAN ENGINEERING & TECHNOLOGY INSTITUTE, PANHALA

Four Days Solar PV Training Program:

Objective

To provide basic information and raise awareness amongst students and entrepreneurs on the following:

- Concepts, components and safety overview with specific focus on technical standards of rooftop solar system/ project.
- Basics of Solar PV, System design and off grid solar PV Plant installation.

Standars Terms and conditions:

1. **Venue**: Institute will provide a Lecture hall for theory section and a laboratory for practical session.
2. **Lecture Hall**: Lecture Hall should have desks for students and must accommodate students as per the registration. The lecture hall should have sound system comprises of a speaker and mike. The lecture room should also have a projector for theory section.
3. **Computers**: Students can bring individual laptops or institute can arrange the lecture hall with computer facilities.
4. **Content**: Course content will be provided to the students/Institute on the last day of the training session.
5. **Teaching Methodology**: The program will be based on Lecture/Presentation including videos for better understanding, hands on experiments for better understanding will be performed and separate timing for practical sessions will be allotted.
6. **Food and Accommodation**: Food and accommodation will be taken care by institute for the duration of course of our all trainers.

For any queries, please feel free to contact our team member on below mentioned contact:

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AGENDA

Solar PV Training Program

Date: 8th July 2019 to 11th July 2019
Venue: Sanjeevan engineering and technology institute**,** Panhala, Kolhapur

Time	Topic	Session Speakers and Outline
	Day 1	
09:00 – 09:30	Registration	
09:30 – 10:00	**Inauguration**	
	Welcome Address	
	About Solar Rooftop Program	
	Vote of Thanks	
10:00 – 12.00	**Session I:** Introduction	**Technical Trainer : Er. Mahesh Kawarkhe** • Energy Scenario in India • Job opportunities in India • Basics of Electricity • Basics of PV Technology
12.00 – 1.00	**Lunch break**	
1.00 – 3.00	**Session II:**	• Types of PV Technologies & Comparison • Types of Solar PV Systems and Comparison

3:00 – 5:00	**Session IV:**	• Practical Session • Demonstration
	Day 2	
10:00 – 12:00	**Quiz & Discussion 1**	• System Design • Study of Solar PV Components 1. Solar PV Module 2. Charge Controller 3. Battery 4. Inverter 5. Miscellaneous Components
12:00 – 1:00	**Lunch break**	
1:00 – 3:00	**Session II**	• Practical Session • Measuring Module Parameters • Effect of Series Connections of Module 1. Effect of Parallel Connections of Module 2. Effect of Series and Parallel (Array) Combination 3. Estimating number of PV modules.
3:00 – 5:00	**Session III**	**Technical Trainer: Er. Madhura Kolhapure** • Case study of On-Grid Solar PV Power plant 1. Overview of components 2. Design of On-Grid power plant 3. Structure design 4. Selection of Panels as per the capacity of plant

Day 3		
10:00 – 12:00	**Session I**	• Software session 1. Design of Off-Grid plant on PVSyst. • Solar Site Visit • Installation, Troubleshooting and safety • Safety in Installation of solar PV system
12:00 – 1:00	**Lunch break**	
1:00 – 5:00	**Session II**	• PV System Components • Installing Mechanical Structure and mounting of PV module • Maintenance of Solar PV System • Troubleshooting of PV system Components
3:00 – 5:00	**Session III**	
Day - 4		
10:00 – 12:00	**Session I**	1. Configuration and design of strings 2. Selection of DCDB, Inverter, ACDB 3. Understanding the SLD of the plant
12:00 – 1:00	**Lunch break**	
2:00 – 4:00	**Session II**	Presentation by students Doubt session