

National Institute of Electronics &Information Technology Aurangabad

CEDTI Complex, Dr. B.A.M. University campus Aurangabad, Maharashtra-431004 http://www.nielit.gov.in/aurangabad/



Short Term Course on Design of Solar System for Homes

Course Duration: - 2 Weeks Theory: -1Hr & Virtual Lab: -2 Hrs. Start Date: -12th May 2021 Timings: -(10:00am to 1:00pm) Total: - 3 Hrs. per Day

<u>Course Description:-</u>

- **1. Demonstrate knowledge of and apply key solar electric system terms and concepts.**
- 2. Size and design a photovoltaic system.
- 3. Mount, ground, position, install, wire and connect a photovoltaic system.
- 4. Test voltage generated by photovoltaic system Operate & amp; Maintain of Solar Power.
- **5.** Participants will learn different types of solar PV module and batteries used in solar PV plant
- 6. Design of solar PV Plant based on estimated loads.
- 7. Learn & amp; handle PVSYST Software.
- **<u>Eligibility: -</u> 10th/12th/Diploma/ITI/Any Graduates (All Streams).</u>**

• Fee & Important dates:-

Course Fee	Rs. 2000/- incl. GST & all other charges.
Last Date for Registration & Payment	11th May 2021
Course Start Date	12th May 2021





• <u>Mode of Course Delivery:-</u>The course would be conducted in a virtual classroom environment which will be completely online, Course content includes Online Theory & lab sessions, Live interactive doubt clearance sessions, Course material in text/pdf format, Links to external resources and blogs, Online Forums, Lab Assignments, Tests etc.

- **<u>Certificate:-</u>**Certificate will be provided to the participants, based on minimum 80% attendance and on performance (minimum 50% marks) in the online test, conducted at the end of the course.
- How to Apply:-
 - Read the course structure & course requirements carefully.
 - Visit the Registration portal and click on apply button.
 - Create your login credentials, fill up all the required details, check preview and
 - Submit the application form.
 - Loginwith your credentialsto verify the mobile number, email ID and then uploadthe documents, Lock the profile and Pay the Fees online, using ATM-Debit Card / Credit Card / Internet Banking / UPI etc.

<u>Course Coordinator:-</u>

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Course Content

Day	Topics
Day 1	Introduction about solar system
Day 2	Calculate energy consumption of appliances, Understanding & amp; calculation of electricity bill
Day 3	 Solar system components 1. Solar panel 2. Batteries 3. Inverter
Day 4	Electronics management system for solar system, Operating cost of home appliances
Day 5	> Preparing of installation, Procurement of components
Day 6	Step by step guide for connect PV system design using PVSYST software, Step by step guide for standalone PV system design using PVSYST software
Day 7	Civil & amp; mechanical work, DC/AC side wiring, System testing & amp; commissioning
Day 8	Preventive maintenance, System monitoring, system diagnosis & amp; troubleshooting
Day 9	 Projects 1kw/2kw/3kw/4kw/5kw plant according to requirement of home
Day 10	 Projects 10kw solar plant analysis