

COURSE PROSPECTUS

Name of the Group: PEG

**Name of the Course: Certificate course in Solar Power Installation Operation
and Maintenance (NSQF aligned)**

Course Code: NIELIT/ES/L4/004

Starting Date: 3rd October 2017

Duration: 4 weeks

Preamble for the course:

Given the growing demand for skilled professionals in solar power electricity generation, and the rapid changes in PV technology, there is an increasing demand for the skill manpower in maintenance of Solar PV Power plant both in India and abroad. The course has been designed to meet this requirement. This job-oriented course is designed with a proper balance of theory with practice, so that students get enough hands on experience. The project work at the end of the course enables students to get an exposure to industrial standards.

Objective of the Course:

This is a skill oriented course in the study of solar photovoltaic (PV) cells, modules, and system components; electrical circuits; PV system design and sizing for use on homes, commercial building etc., understanding energy conversion from sunlight to electricity, and working with solar conversion equipment. This Course will give students the book knowledge and hands on experience needed to become entrepreneur / self employed

Outcome of the Course:

This 4 weeks intensive training course has been specifically designed to address the requirements of Solar PV Module installer who want to become experts in Solar Power Electricity Generation. Participants will learn different types of solar PV module and batteries used in solar PV plant, design of solar PV Plant based on estimated loads etc.,

Course Structure:

<i>Title of unit or other component (including any identification code used)</i>	<i>Estimate size (learning hours)</i>	<i>Level</i>
Understanding the Solar PV cells parameters	08	4
Selecting the solar PV system components	16	
Solar PV System Design and Integration	16	
Installing, Trouble Shooting and Safety	20	
Project	20	
TOTAL HOURS	80	

Other Contents

a. **Course Fees:**

General Candidates: Course fee is **Rs.8000** Includes 18% GST

SC/ST Candidates : Tuition Fees/Examination fees are waived for SC/ST students admitted under SCSP/TSP. However they are required to remit an amount of **Rs.1000/- as Advance caution/security deposit**. This amount will be considered as caution/security deposit and will be refunded after successful completion of the course. If the student fails to complete the course successfully this amount along with any other caution/security deposits by the student will be forfeited.

b. **Registration Fee:**

An amount of **Rs.1000/-** should be paid at the time of registering for the course. The same will be considered as caution deposit on student joining the course. This advance deposit will not be refunded for a selected candidate who does not join the course.

c. **Course Fee Installment Structure:** Not applicable for this course

d. **Eligibility:**10+2, Diploma, Any Graduate

e. **Number of Seats :** 20

f. How to Apply :

Students are advised to apply online @<http://nielit.gov.in/content/online-registration>. Payment towards advance fee of Rs.1,000/- may be paid the **SBI Collect Payment Gateway** @<http://nielit.gov.in/calicut/content/mode-payments-0>

Rs.1000/- will be considered as refundable caution deposit on student joining the course, which will be refunded on successful completion of course. This advance deposit will not be refunded for a selected candidate who does not join the course.

SBI Collect Payment Gateway:

1. Please click the SBI Collect hyper link to enter the payment gateway.
2. Select Payment Category as *Course Fee*
3. Enter all the fields including amount payable and follow the instructions

The following details should reach here before the due dates.

1. Name of the Depositor
2. Name of the Student
3. Date of Payment
4. Amount Deposited
5. Purpose – Course Name:
6. UTR Number

The Institute will not be responsible for any mistakes done by either the bank concerned or by the depositor while remitting the amount into our account

g. **Selection of candidates** : First come First Serve

h. **Test/Interview**: Not Applicable

i. **Counseling/Admission** : 3rd October 2017

j. **Spot Admission** : If spot admission is open, spot admission will close within 5 days of Counseling/Admission of a particular course. On spot admission students should provide an undertaking saying that he/she is fully aware that he/she missed so much days of class and will not ask for extra classes or further extension of course.

k. **Admission Procedure** :

Students who want to admission are required to report to the Institute on the prescribed day by 9:30hrs along with the following

1. Original and attested Copies of Proof of Age, Qualifications, etc
2. One passport size photograph and one stamp size photograph for identity card.
3. SC/ST Certificate (Original and attested copies, if applicable)
4. Income Certificate (Original and attested copy, if applicable)

The students on reaching the Institute are required to meet the Front Office Councilor (FOC). The FOC then directs the student to the Course Coordinator. The student gets the certificates and enrollment form verified by the Course Coordinator and then meets the FOC who shall direct the student to the Accounts for payment of fees. A student is thus admitted, self attested copies of all documents shall be handed over to the Course Coordinator.

l. **Discontinuing the course:** No fees (including the caution deposit) under any circumstances, shall be refunded in the event of a student discontinuing the course. No certificate shall be issued for the classes attended.

m. **Course Timings :** 10 AM onwards from Monday to Friday

n. **Location and how to reach :**

NIELIT Calicut is located very close to NIT campus and is about 22Kms from the Calicut (Kozhikode) city. A number of buses (Buses to NIT via Kunnamangalam) are available from "Palayam Bus Stand and KSRTC Bus Stand". The bus stop at our Institute is called "Panthrand" and is one stop before NIT. The bus fare is around Rs.17/- from Calicut City to NIELIT.

Calicut (Kozhikode) is well connected by Rail, Road and Air form different parts of the country. The maximum and minimum temperatures range between 35⁰C and 20⁰C.

o. **Course enquiries :**

Students can enquire about the various courses either on telephone or by personal contact between 9.15 A.M. to 5.15 P.M. (Lunch time 1.00 pm to 1.30 pm) Monday to Friday.

p. **Important Days:**

Starting date	03.10.17
Last date to submit application form	26.9.17
Selection intimation in website	27.9.17
Counseling/Admission	03.10.17
Commencement of class work	03.10.17
Payment of Fee	03.10.17

q. **Placement :** Support shall be provided

r. **Hostel facilities :**

Hostel accommodation is available for boys and girls on monthly or daily chargeable basis. The hostel fee varies from Rs.1,400 /- to Rs.1,500/-- per month depending on the type of accommodation. However, students are required to pay the hostel fees for the duration of the course for which they are seeking admission at the time of joining the course

s. **Canteen facilities :**

Canteen & Mess facility is available for both boys & girls, students, those who avail mess facility should pay monthly mess fee @Rs.130/- per day. An amount of Rs.1,000/- should be paid as mess advance to the Canteen Contractor at the time of joining the mess which will be adjusted in the last month mess fee.

An amount of Rs.3,000/- should be paid as caution deposit (hostel & mess) at the time of joining the hostel which will be refunded/adjusted at the end of the course

t. **Lab Facilities:** Various measuring instruments, solar power meter, Battery Capacity Tester, Multimeter, AC/DC Digital Clamp Meter, Digital Insulation tester, Solar Power Plant 10KW, Solar Hybrid inverter 850VA sine wave for 300W solar power plant etc.,

u. **Course Contents :**

- Learn procedure of measurement of Electrical Quantities
- Follow procedure to measure Solar parameters
- Learn how to assemble Solar PV module
- Recognize different types of Batteries and their uses.
- Use of Solar charge controller (MPPT)
- Learn working principle of Inverter
- Design methodology for SPV system.
- Various tools use for Solar PV panel mounting
- Design of Mechanical structure for Solar PV
- Installation and Troubleshooting Solar PV System
- Installation and Troubleshooting Solar Street, Light and Solar Lantern
- Maintenance and Safety of Solar PV System, Electrical Audit.
- Preparation of Solar PV Plant Installation Check list
- Installation and Troubleshooting of 300Wp Solar Power Plant