



SKILL DEVELOPMENT PROGRAMME ON DESIGN OF SOLAR PV SYSTEMS (ONLINE MODE)

Date: 14 March to 16 March 2023



**National Institute of Solar Energy
Gwal Pahari, Gurugram- Faridabad Road,
Gurugram , Haryana - 122003**

Background

Solar energy the most abundant natural resource is easily capable of providing many times the total current energy demand. India is endowed with vast solar energy potential about 5,000 trillion kWh per year energy is incident over land area with most parts receiving 3-5 kWh per sq.m per day. Solar power is the conversion of sunlight into electricity. Two main commercial ways of conversion of sunlight into electricity are Photovoltaic Plants (PV) and Concentrating Solar Power system (CSP). PV directly converts sunlight into electricity. Photovoltaic system comprises PV Modules, Inverters & Charge Controllers, Mounting structure, and Balance of System Components.

For setting up the Solar PV plant, site survey and effective design has to be carried. Various software tools are available to analyse the solar data for its reliability, to design and to estimate the generation. There is a demand for smart designers in this field.

About NISE:

NISE is an autonomous institute under Ministry of New and Renewable Energy, Government of India established to facilitate the Research & Development, Testing, Certification, and Skill Development activities in the field of solar energy technologies. (www.nise.res.in)

Learning Objectives

1. To understand the design aspects in various types of Solar PV System.
2. To learn about the important checks, optimizations in the design of PV system.
3. To get sensitized to financial design (Costing of a Solar PV Power plant).
4. To get an overview of use of simulation software for the PV system design, and guide to preparation of techno-commercial proposal.

Vision & Mission

1. The **vision** of this programme enables participants to “Be a smart designer of Solar PV System”.
2. The **mission** of this programme is to impart the knowledge and proper training and enable participants to become a solar professional and support Solar Industry in the country.

Target Audience

Graduate Engineers with basic knowledge of Electrical Concepts; Solar Entrepreneurs; Public Sector Undertaking Officials; EPC contractors; MNRE channel partners; Senior Energy Department Officials of Govt. of India and Officers from State Nodal Agencies etc.

PROGRAMME AGENDA

| Day 1 | |
|-------------------------------|---|
| Timing | Course Content |
| 10:30 to16:30 (3 Sessions) | Introduction to Course and Participants |
| | Overview of Renewable Energy Development in India. |
| | Basics of a Solar PV System, and its Components, including BoM. |
| | Design Aspects in a Solar PV System |

| Day 2 | |
|-------------------------------|--|
| Timing | Course Content |
| 10:30 to16:30 (4 Sessions) | Design of an On-Grid PV System – Hands on Exercise. |
| | Design of an off-Grid PV System – Hands on Exercise. |
| | Major Checks in the design of Hybrid PV Systems and Design optimizations. |
| | Overview of Simulation software for PV system Design with Hands on Case study. |

| Day 3 | |
|--|--|
| Timing | Course Content |
| 10:00 to16:30 (4 Sessions) | Discussion on Case Studies. |
| | Financial design (Costing) of a Solar PV System. |
| | Design Optimizations and Techno-commercial proposal. |
| | Overview of design of a Solar PV Pumping System. |
| | Feedback, Assessment and Conclusion. |
| <i>Faculty shall be experts from Solar Industry / Professionals.</i> | |

Program Coordinator : Mr. Rahul Pachauri,Project Engineer,NISE(9953451476)

| | |
|--------------------------------------|---|
| Training Fees per participant | Rs 3000 plus GST @ 18 % (Rs 3,540/-) in favor of “National Institute of Solar Energy –Capacity Building “Gurugram. |
| Fees Includes | Access to all the lectures, Certificate |

How to Apply?

1. Step-by-Step procedure to fill the Application. ([Click Here](#))
2. To register click on link <https://training.nise.res.in/u/apply>
3. Participant will have to give basic details in the registration page.
4. After filling the required details an OTP will be sent to your email ID through which participant will Login
5. After logging in participant has to fill the payment details as per the following details

Participants may kindly make the Payment of **Rs 3,000 plus GST @ 18 % (Rs 3,540/-)** through RTGS/NEFT/Cheque/Demand Draft (DD) only, in favor of:

Account details are as follows:

ACCOUNT HOLDER NAME: NATIONAL INSTITUTE OF SOLAR ENERGY (NISE)

ACCOUNT TYPE: CURRENT ACCOUNT

BANK NAME: STATE BANK OF INDIA, DLF QUTAB ENCLAVE, SHOP NO.: 109-110 QUTUB PLAZA, SHOPPING C, GURGAON HARYANA,
(SBI BRANCH CODE: 6604)

ACCOUNT NO. 37266665652

IFSC CODE: SBIN0006604

Note: If you require invoice against your organization, it is mandatory to mention GSTN number of your organization. Otherwise, your invoice will be generated as an Individual.

The participants must clearly indicate their bank transfer details in the application form. Registration will be confirmed only after the making of desired payment and submission of the application form. For any clarifications.

Mr. Rahul Pachauri, Project Engineer GR-II **Ph: 9953451476** or rahul.pachauri@nise.res.in

Number of Seats:

| No. of Seats | Registration Confirmation |
|--------------|------------------------------------|
| 50 | Based on the payment confirmation. |

For Clarifications related to Payment Mr. Deepak Khandelwal- Consultant (0124 – 2853033):