6 Months - Advanced Solar Professionals Course Batch 4

Venue: NISE Gurugram, Haryana

Date of start of course: 07/04/2020

ABOUT NISE:
National Institute of Solar Energy (NISE) is an Autonomous Institute of Ministry of New and Renewable Energy, Government of India to function as an Apex National Centre for research and technology development and related activities in the areas of Solar Energy Technologies in the Country. NISE is located on a 200 acre campus at the Gurugram- Faridabad Road, Gwal-Pahari, Gurugram, Haryana. The Institute works on development of Solar Energy Technologies and practices and contributes in advancement of related Science and Engineering. The R&D activities of NISE are carried out in coordination with other research organizations and industry.

NEED FOR THE COURSE:
• All the Solar (both solar PV and thermal) Training courses in India are in short-term courses. They only cover a very specific portion of solar photovoltaic or solar thermal technology. NISE is very well known for its various successful Skill Development programs in the different aspects of Solar Energy. Our various scientific staffs deliver invited lectures across the country. It is observed that the participants of any specific training program used to ask doubts/ queries regarding other faces of solar energy technologies. Most of the trainees have given feedback that if a joint long-term program could be framed including major technical & business sectors of solar energy.

• Therefore this 6 months “Advanced Solar Professional course” is framed for a better understanding and hands-on-practice of the solar energy fundamental (Solar Photovoltaic and Solar Thermal) for both technical and non-technical (business persons).

OBJECTIVE OF THE COURSE:
• This course aims in a better understanding and hands-on-practice in the different streams of solar energy including Solar Photovoltaic technologies, Applications in the form of On-grid and Off-grid systems, Solar Water Pumping System, Solar Thermal technologies, Applications of Solar Thermal technologies, Solar Resource Assessment, Business Entrepreneurship.
First Batch of Advanced Solar Professionals Course at NISE Gurgaon

Advanced Solar Professionals Course-Second Batch 08/10/2018-07/04/2019

Second Batch of Advanced Solar Professionals Course at NISE Gurgaon
ABOUT THE COURSE:
This course has been developed by National Institute of Solar Energy (NISE). This is a six months course designed for technical, non-technical and business persons who is interested in the solar sector.

CAREER OPPORTUNITIES:
- The participants will be receiving a certificate from NISE.
- Certificates course will help the participants to explore the career possibilities in the following areas:
  - Entrepreneurship
  - Site Engineer related to Solar Energy
  - Project engineer
  - Solar Power Plant Designer
  - Installer, O & M
  - EPC
  - Trainer

LEARNING OUTCOMES:
- Understand the basics solar energy and concept of solar PV (photovoltaic) system*
- Survey a solar PV installation site
- Understand all equipment related to solar PV system
- Design any solar PV system as per Customer’s requirements as well as appropriate codes and standards
- Prepare the necessary technical documents related to the design, installation and operation of the PV system
- Installation of solar PV system based on the relevant designs and drawings.
• Operation and Maintenance of solar PV system including identification and troubleshooting of faults along with ensuring of safety while installation and operation
• Undertake project management for installation of solar PV system
• Understand necessary formalities with authorities for applications, submissions, approvals, interconnections, inspections, certifications, commissioning, etc. for PV system
• Different Metering mechanisms and Key Implementation Requirements, Standards, Regulations
• Pre-commissioning inspection of the Solar PV Power Plant
• Work safety at a SPV site including knowledge of Personal Protective Equipment, First-aid kit, Fire-extinguishers and Safe job practice at height.
• Understand the basics concept of various solar thermal technologies**
• Site survey of a solar thermal system
• Understand all equipment related to the solar thermal system
• Design of solar water thermal system as per Customer’s requirements as well as appropriate codes and standards
• Prepare the necessary technical documents related to the design, installation and operation of the solar thermal system
• Installation of a solar thermal system based on the relevant designs and drawings
• Operation and Maintenance a solar thermal system and ensuring safety while installation and operation of the solar thermal system
• Undertake project management for installation of a solar thermal system
• Understand the various necessary formalities with authorities for applications, submissions, approvals, interconnections, inspections, certifications, commissioning, etc. for solar thermal system
• Pre-commissioning inspection of the Solar thermal Power Plant
• Work safety at a solar thermal installation site including knowledge of Personal Protective Equipment, First-aid kit, Fire-extinguishers and safe job practice at height.
• General aspects of Entrepreneurship and start-up of business
• Development of solar business*** in the field of Manufacturing, Installation, Operation & Maintenance, Testing & Commissioning
• Development of business-specific project profile including Market Research, Land & Cost analysis, Vendor availability, Transport feasibility, Manpower, Loans, Policies & Subsidies
• National and State Policies for solar energy system
  * Ground mounted, Rooftop solar, Grid connected rooftop solar PV system, Off-grid system applications (home lighting, street lighting & lantern) and solar water pump

**Solar water heating system, solar cooker,

***include solar PV, thermal & water pumping system

**TARGET AUDIENCE:**

(1) Diploma in electrical, electronics and mechanical + Experience (>= 5 Years)
(2) B.Tech/ BE or its equivalent in any branch of Engineering (Result awaited not allowed)
(3) MTech, PhD and other
(4) BSc (Phy/Electronics), MSc (Phy/Electronics)
(5) Other graduate and post-graduate degrees
(6) Solar Entrepreneurs
(7) Public Sector Undertaking Officials
TOPICS TO BE COVERED:
General aspects of energy system, basic electrical engineering, solar resources for photovoltaic system, physics of photovoltaic system and its applications overview and selection criteria for module, module structures (mechanical and civil) and foundation selection, overview and selection criteria for solar inverters, battery and charge controller, solar PV balance of system, types of photovoltaic system, understanding of single line diagram, performance evaluation tools and net metering at NISE campus including challenges, metering arrangements and their relevant regulations, health and safety, site assessment/survey and project planning along with toolkits, project design and documentation including cost analysis, design documentation, bill of materials, economic efficiency report project feasibility, Study of techno commercial reporting DPR & PPA making for PV power projects, solar PV system installation and its application design and calculation, Street light design and calculation, Solar water pump design and calculation, Overview of pre-commissioning inspection parameters of solar PV plant, overview of post-commissioning inspection parameters of solar PV plant, system operation and maintenance-troubleshooting: o & m, national and state level policies, Govt schemes, and available vendors, financial calculation of SPV power plant, solar thermal, performance evaluation and O & M of solar thermal systems, designing of concentrated solar thermal & solar water heating system-solar cooking, project submission and certificate distribution

COURSE FEE:

<table>
<thead>
<tr>
<th>Training Fee per participant</th>
<th>Rs. 65,000 +GST (18%) in favor of “National Institute of Solar Energy –Capacity Building” Gurugram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Course Fees</td>
<td>Rs 65,000 +GST (18%) (Non Refundable)</td>
</tr>
<tr>
<td>Fees Includes</td>
<td>Access all the lectures, Visits, Training Kit, Study material, Tea, Assessment, &amp; Certification Fees</td>
</tr>
<tr>
<td></td>
<td>Note: The Course fees doesn't include TA/ DA, Fooding-Lodging, and other expenses related to the Internship</td>
</tr>
<tr>
<td>Meal</td>
<td>Participants may arrange themselves or use NISE Canteen services (only on payment services) Rs 50 per meal –NISE Canteen</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Will be provided on payment basis subject to availability. Charges : Rs 600/Day/person</td>
</tr>
<tr>
<td>TA/DA</td>
<td>TA /DA would not be provided by NISE.</td>
</tr>
</tbody>
</table>

Participants may kindly make the Payment of Rs. 65,000 + GST (18 %) through RTGS/ NEFT only, in favour of:

<table>
<thead>
<tr>
<th>Account Holder Name</th>
<th>National Institute of Solar Energy –Capacity Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Name</td>
<td>State Bank of India, DLF QUTAB ENCLAVE, Shop No.: 109-110 Qutub Plaza, Shopping C, Gurgaon Haryana</td>
</tr>
<tr>
<td>Account Type</td>
<td>Current Account</td>
</tr>
<tr>
<td>Account No.</td>
<td>37266665652</td>
</tr>
<tr>
<td>IFSC Code</td>
<td>SBIN0006604</td>
</tr>
</tbody>
</table>
**NUMBER OF SEATS:**

<table>
<thead>
<tr>
<th>No. of Seats</th>
<th>Selection criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>40*</td>
<td>Initial screening --→ Telephonic interview --→ Final shortlisting (as per NISE selection committee decision) --→ Payment verification --→ Verification of original documents at NISE on the 1st day of joining the course --→ Final enrollment and Registration at NISE for Advanced Solar Professionals Course – Batch 3.</td>
</tr>
</tbody>
</table>

*Number is subjected to vary.*

**STEPS TO APPLY & SELECTION PROCEDURE:**

Step 1. Fill and mail Form I to nise.asp6@gmail.com on or before date along with the scanned copies of required documents mentioned in Form I.

Step 2. Initial screening by NISE selection committee based upon the Qualification, Experience and Synopsis

Step 3. Telephonic interview of the initially screened candidates

Step 4. Mail will be sent to the Final shortlisted candidates (who have qualified the telephonic interview). A specific Candidature number will be sent to you through email after telephonic interview. Candidate must fill that Candidature number while filling Form II, otherwise your candidature for the course will be cancelled. No refund will be done in this regard.

Step 5. After getting candidature number through email please Fill and mail Form II and Form III to nise.asp6@gmail.com along with the scanned proof of payment details.

Form III should only be filled by those shortlisted candidates who are interested to avail the accommodation facility provided by NISE (subject to availability of seats). Otherwise, fill and mail Form II only.

Step 6. After receiving duly filled Form II at NISE, Once payment gets verified by NISE, the shortlisted candidates will receive an acknowledgement-cum-invitation letter through Email to join the course.

Candidates will also receive a letter regarding their application for accommodation at NISE.

Step 7. On the very 1st day at NISE, all the original documents related to Qualification & Experience and handwritten copy of Synopsis will be verified. All the shortlisted candidates are hereby informed to bring all the related documents (in original) of Qualification and Experience for verification at NISE at the time of joining the course.

The handwritten Synopsis (which was sent earlier with Form I) is to be submitted at NISE at the time of Document verification.

*Note: If the mailed documents don’t match with the original documents, your candidature for the course will be rejected. The candidate will not be having any right to claim for the refund of full/partial amount of the fees.*
Step 8. Candidates will get enrolled and registered for 6-months Advanced Solar Professionals Course – Batch 4 at NISE.

_The course fee is one-time payable and purely non-refundable. No claim or refund of fees will be entertained._

**IMPORTANT DATES:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Last date of receiving of Form I</td>
<td>10th March 2020 till 4 pm</td>
</tr>
<tr>
<td>Mail to initially screened candidates for telephonic interview.</td>
<td>13th March 2020</td>
</tr>
<tr>
<td>Telephonic Interview</td>
<td>16th &amp; 18th March 2020</td>
</tr>
<tr>
<td>Mail to Final shortlisted candidates for further process of payment of fees</td>
<td>13th March 2020</td>
</tr>
<tr>
<td>Last date of receiving of Form II and Form III (Form III is optional)</td>
<td>26th March 2020</td>
</tr>
<tr>
<td>Acknowledgement-cum-invitation to Final shortlisted candidates (after getting confirmation from NISE-Accounts division regarding payment of fees)</td>
<td>27th March 2020</td>
</tr>
<tr>
<td>Letter regarding accommodation at NISE (subject to availability)</td>
<td></td>
</tr>
<tr>
<td>Verification of original documents</td>
<td>7th April 2020</td>
</tr>
<tr>
<td>Submission of original copy of handwritten Synopsis</td>
<td></td>
</tr>
<tr>
<td>Date of start of Advanced Solar Professionals Course –Batch 4 at NISE</td>
<td>7th April 2020</td>
</tr>
</tbody>
</table>

**Note:**

(1) The advertisement is self-explanatory in itself. Still if anyone has any doubt, he/she may communicate through email only, through Email-ID – nise.asp6@gmail.com. No communication will be entertained telephonically.

(2) Updates (if any) regarding the course shall be displayed on NISE website, i.e. www.nise.res.in.

(3) All dates indicated above are tentative. Any change in the schedule of any session will be displayed on the website only. All the participants are advised to check our website regularly for new updates.

**CERTIFICATION AND ASSESSMENT:**

Certification and Assessment will be done by NISE. Apart from this assessment, internal exams will also be conducted by NISE in due course of time w.r.t. the covered topics of the course.

**For any queries, you may contact between 11:00 am to 4:30 pm during weekdays:**

| Course Coordinator : Ms. Swati Agariya  |
| Contact Details: +91-9958056323 , 0124-2853125 & nise.asp6@gmail.com |
**Application Form for 4th batch of ‘ADVANCED SOLAR PROFESSIONALS COURSE’**

Name of Participant (Mr/ Mrs/ Miss):

Father’s / Husband’s name:

Gender:

Aadhaar Number:

Contact Number:

Email ID:

Present Designation:

Present Organization Details:

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>Complete Postal Address (with PIN)</th>
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</tbody>
</table>

Phone Number

Email ID

GSTN number of the Organization (if Invoice/ Receipt required in the name of organization)

Permanent Address:

<table>
<thead>
<tr>
<th>Name of Emergency Contact number</th>
<th>Relationship with participant</th>
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<tbody>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Complete Postal Address (with PIN)</th>
<th>Emergency Contact number</th>
</tr>
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<tbody>
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</tbody>
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<table>
<thead>
<tr>
<th>Email ID</th>
<th></th>
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</tr>
</tbody>
</table>

Accommodation required (on payment basis only; subject to availability): YES/ NO

Essential Qualification details:

Experience:

<table>
<thead>
<tr>
<th>Number of years</th>
<th>Category (Student/ R&amp;D/ Industry/ Business/ Others)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Please specify in case of Others</td>
</tr>
</tbody>
</table>

CV/ Resume attached: YES/ NO

Aadhaar Card attached: YES/ NO

PAN Card attached: YES/ NO

Paste recent passport size photograph (self-attested)
Synopsis/ Area of Interest/ Outlook from this Course (Use separate sheet for minimum 200 words write-up in your own handwriting followed by your specimen signature & date at the end of the write-up matter) attached: YES/ NO

Place:

Date:

Signature of Participant
## Program Details

<table>
<thead>
<tr>
<th>Program Name:</th>
<th>Advanced Solar Professionals Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Duration:</td>
<td>6 months</td>
</tr>
<tr>
<td>Program Coordinator:</td>
<td>Mrs Swati Agariya</td>
</tr>
</tbody>
</table>

## Participant Details

**For Individual Only**

- **Name of Participant:**
- **Candidature Number (allotted by NISE after telephonic interaction):** ASPC/04/__________
- **Aadhaar Card ID:**
- **Complete Postal Address (include District, State, Pin):**

<table>
<thead>
<tr>
<th>Mobile No.:</th>
<th>Alternate Mobile No. (if any):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email ID:</td>
<td>PAN:</td>
</tr>
</tbody>
</table>

**For Corporate/ Organization/ Institution**

- **Registered Name of Corporate/ Organization/ Institution:**
- **Registered Office Address:**
  - Address Line 1
  - District
  - State
  - Pin
- **Office Contact No.:**
- **Office Email ID:**
- **PAN:**
- **GST Registration Type (Composition, Consumer, Registered, Unregistered):**
- **GST No.:**
- **State & State Code as per GST Registration:**
- **Whether SEZ/ Government Entity/ Deemed Export (If yes, please specify):**

<table>
<thead>
<tr>
<th>Participant Name:</th>
<th>Participant Contact No.:</th>
<th>Participant Email ID:</th>
</tr>
</thead>
</table>

## Payment Details

- **Amount:**
- **Mode of Payment (NEFT/ RTGS):**
- **Transaction Reference No.:**
- **Transaction Date:**
- **Bank with Branch Code:**

## Declaration

I hereby declare and certify that the information provided is correct and accurate to the best of my knowledge and belief.

Name:  
Signature with Date:

## Note

1. All the Fields are Mandatory. You may write NA as per your candidature.
2. 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.
Accommodation Form for 4th batch of ‘ADVANCED SOLAR PROFESSIONALS COURSE’

NATIONAL INSTITUTE OF SOLAR ENERGY

(1) Name of Participant (Mr/ Mrs/ Miss):

(2) Father’s / Husband’s name:

(3) ID No. (PAN/Driving License/Aadhaar/ Passport/ Office ID):

(4) Postal Address:

(5) Correspondence Address:

(6) Permanent Address:

(7) Contact No.:

(8) Email ID:

(9) Profession:

(10) Duration of Stay:

RECOMMENDATION of Program Coordinator (only for Official use)

________________________________________________ has enrolled and deposited the Fees for 4th batch of Advanced Solar Professionals Course at NISE. The Accommodation Allotment In-charge may kindly allot the seat as per the Institute rules.

Remarks (if any):

NAME:

Signature & Date:

APPROVAL of Accommodation Allotment In-charge (only for Official use)

Approved (YES/ NO):

Duration of Stay:

Remarks (if any):

Signature & Date
HOW TO REACH

NISE:

NISE is located in a 200 acres campus on Gurgaon-Faridabad Highway. It is approx. 10 KM from Guru Dronacharya Metro station or Sikanderpur Metro station. Radio Taxies, Ola cabs and Autos are available from these Metro stations to NISE and vice versa. When you are coming from Gurgaon to NISE, NISE is located on the left side of the Highway. If you are coming from Delhi by Car on Mehrauli– Gurgaon Road, after crossing Arjan Garh Metro station and crossing the Haryana Border take a left turn towards Faridabad at Le Meridien Hotel or at Metro Pillar No. P- 14. From this point NISE is located approx. 10 km away. If you are planning to come from Faridabad side, NISE is located just 4 km after crossing toll gate on Faridabad-Gurgaon Highway. You would find NISE on the right side of the Highway.