

## राष्ट्रीय सौर ऊर्जा संस्थान National Institute of Solar Energy

National Institute of Solar Energy
(An Autonomous Institution of Ministry of New and Renewable Energy)
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File No.: SDD-31011/3/2024-SDD Date: 28-03-2024

# Sub: Expression of Interest (EOI) of Suryamitra Skill Development Programme for FY 2023-24.

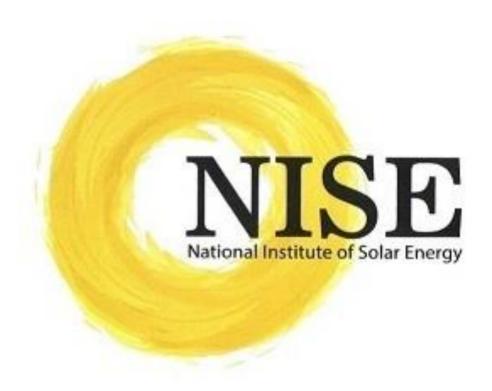
Expression of Interest is hereby invited to empanel Training Centres (TCs) to impart training under Suryamitra skill development programme. The empanelment of TCs may be considered for one year or beyond, subject to the continuity of the programme.

### Last date to submit the online application is 30/04/2024 up to 5:30PM

The link for online submission of application is <a href="https://suryamitra.nise.res.in/Enrollment/Login">https://suryamitra.nise.res.in/Enrollment/Login</a>.

This bears approval of competent authority.

-Sd-( Dr. Siva Reddy V ) Director (Technical)



# Invitation for Expression of Interest for empanelment of Training Centres for imparting training under "SURYAMITRA SKILL DEVELOPMENT PROGRAMME" in FY 2023-24

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### **Section 1: Background**

### 1.1 Introduction

National Institute of Solar Energy (NISE) is an Autonomous Institute of Ministry of New and Renewable Energy (MNRE), Government of India (GoI) to facilitate Research & Development (R &D), Testing, Certification and Skill Development activities in the areas of solar energy technologies in the Country.

Under the skill development initiatives of the MNRE, NISE is mandated as the nodal agency for implementation of "Suryamitra Skill Development Programme" (SSDP). NISE is inviting Expression of Interest (EoI) for empanelment of Training Centres (Tc's) for imparting training under SSDP.

### 1.2 About Suryamitra Skill Development Programme (SSDP)

SSDP aims to develop the skills of youth, considering the opportunities for employment in the growing solar energy sector such as: installation, operation & maintenance in India and abroad. The SSDP is also designed to prepare the participant/ trainee to become an entrepreneur in solar energy sector. This is a 600 hours residential skill development programme following the Qualification Pack (QP) of SGJ/Q0101 details of the QP is available at <a href="https://sscgj.in/wpcontent/uploads/2016/10/Booklet Qualification-Pack-SCGJ.pdf">https://sscgj.in/wpcontent/uploads/2016/10/Booklet Qualification-Pack-SCGJ.pdf</a>. Preferable qualification for participant will be as per QP SGJ/Q0101. Special emphasis to be given to the persons coming from rural background, women, unemployed youth, SC/ST category. The participants would be provided boarding and lodging facilities at the Training Centre (TC) by the Training Partner (TP). At the end of the course, Assessment and certification shall be done by Skill Council for Green Jobs (SCGJ). Any change in assessing body (SCGJ) shall be informed by NISE. List of Equipment and Curriculum for conducting training under SSDP is attached as Annexure 1-3.

NISE reserves the right to modify/change/ update/amend/cancel the Expression of Interest (EoI) without specifying any reason. Any query related to this EoI can be sent to **e-mail eoi@nise.res.in** 

### 1.3 Important Date

The applicant (TP) has to submit application in online mode only and the applications submitted through any other mode shall not be considered. The link for online submission of application is available at <a href="https://suryamitra.nise.res.in/Enrollment/Login">https://suryamitra.nise.res.in/Enrollment/Login</a>.

### Last date to submit the online application is 30/04/2024 up to 5:30PM

### Section 2

### 2.1 Scope of work

NISE invites response document to this Expression of Interest for the selection of TCs to impart training under Suryamitra skill development Programme on PAN India basis against the programme sanctioned by MNRE for FY2023-24. Empanelled TCs may also be considered for FY2024-25 subject to the programme sanctioned by MNRE and also subject to the fulfilment of all qualifying conditions. As per present sanction all empanelled training centres to ensure

completion of training by June 2025. However, this date may be extended subject to the receipt of sanction from MNRE.

# 2.2 Eligibility Criteria (All TCs must fulfil following criteria so as to be considered for further evaluation as per technical scoring criteria given at para 2.3).

- (i) The TC must be an Institute/ Engineering College/ Polytechnic College/ ITI/ NGO/Pradhan Mantri Kaushal Kendra (PMKK) or any other affiliated skill development centre with proper infrastructure as per para 2.5.
- (ii) TC must have training experience in the renewable energy/ solar energy.
- (iii) The TC must have at least one MoU/Tie-up with Industries for industrial on job training.
- (iv) The TC must have valid centre affiliation from NSDC to conduct training as per the relevant QP i.e. solar PV installer SGJ/Q0101.
- (v) The TC shall have 2 trainers per centre and at least one of them shall be certified as Training of Trainer (ToT) from SCGJ to conduct solar training as per the relevant SCGJ Qualification Pack.
- (vi) TC must have well equipped laboratory, classroom facilities and residential facilities as per para **2.5**.
- (vii) The TC must provide all the required details in online application form as given below:

### **Online Application Form**

### Part-A

A.1		Title of the Project					Suryamitra Skil	l Developme	ent Pro	gran	nme for FY 2	2023-24				
A.2		I	Nam	e of	TP	<b>/T</b> (	C									
A3		Name of the Authorized Person of TP/TC with Designation														
A.4	Address of the registered office and contact details of the TP/TC					Address: Phone: Email: Pin: State: District:										
A.5	Legal status of the TP/TC					(Attach proof Authority) (Attach Copies		·		•	from the	competent				
<b>A.6</b>		1	Annı	ıal '	Tur	nov	ver									
	S. No	).	FY	Ye	ar				Annua rupees	al Turnover (in Upload Audited Balance Sheets				e Sheets		
	1															
	2															
	3		Tot	-al												
<b>A.7</b>		-			·C	4.	•• ( <b>TC</b> )	Doto	:1.							
A./	Sr.	Nar		ning St	D D	C	re (TC)		nplete	Centre	Ownership	Hoste	1	Number of	Number of	Upload
	No	of T	ГС	at e/ U T	i s t r i c	i t y	code		Iress	Affiliation Certificate Number along with validity lease agreement	of Training Centre (Owned/ Lease) * If leased date of validity of	Facility within the Camp Outside the camp	ty n ous/ de	candidates Trained in last three years in this Centre in solar energy**	candidates for whom Placement done in Past three years from this centre in solar energy**	document described at *,** and #, Centre Affiliation certificate Geotagged Photos of classroom,

							lab, Hostel, 1kW Solar Power Plant
			·				

Note: Merge all the following documents in a Single PDF and Upload.

\*Attach proof of the Training Centres Ownership or Lease/Rent Agreements along with Geo- tagged Photos.
\*\*Attach statement certified by a Chartered Accountant to have trained and placed number of participants in Solar Energy Sector specifically for the centre applied

# Outside Hostel facility but within the radius of 1 km of training centre may be considered as with in the campus. Attach the screen shot of Google map as proof of distance.

Geotagged Photos of classroom, lab, Hostel, 1kW Solar Power Plant

### B.1 Past experience of the TC- Skill Development Training in Solar Energy (minimum 80Hours) in last three years

S. No.	Name of the TC	Financial Year	Name of the training programme	Candidates Trained	Name of Sector Skill Council	Attach Document (CA Certified Document)
1						
2						
3						
		Total				

### B.2 Trainers with relevant qualification and Experience (at least one trainer should be certified by SCGJ as per relevant OP) -

	Name of the TC	Name of Trainer	SCGJ Certificate Number, issue and validity of Certificate	Qualification (ITI/Diploma + 3 years of Experience or B. Tech/ B.E +2 years of experience)	Total Experience as trainer in solar energy	Upload relevant Documents ToT certificate, Degree, Experience Letter
1						
2						

### B.3 MOU/Tie-up of TP with Industries for industrial training in solar energy

List the name of organizations where placement linkages are established

Sr. No	Name of TC	Name of Industry	MOU/ Agreement Copy to be uploaded				

TC/TP must have one MOU/tie-up with industry for on job industrial training in solar energy and placement.

### 2.3 Process of Shortlisting the TCs

- NISE will form a Technical Evaluation Committee (TEC) duly approved by the competent authority to evaluate the response submitted by the TCs against this EoI.
- The TEC will evaluate the responses submitted by the TCs as per following technical (b) response scoring criteria:

### Technical Scoring Criteria – maximum 100 marks

	NATIONAL INSTITUTE OF SOLA				
	"Solar PV Installer (SURYAMITRA)" TRAIL MARKING CRITERIA - 100 N		RAMME		
S. No.	Evaluation Criteria / Weightage	Maximum marks	Proof / Documents required		
	Training Centre infrastructure facility		•		
	Training Centre including classroom, labs etc.	20	Ownership document		
a	(i) Owned by the TC (20 marks)	20			
	(ii) Rented/Lease (10 marks)		Valid rental/ lease deed		
	Hostel facility		Geo-tagged image		
b	(i) within the campus (20 marks)	20	of hostel clearly		
	(ii) outside the campus (10 marks)		showing the centre and hostel		
	No of ToT certified trainer per centre				
c	(i) No of ToT certified trainer 2 (20 Marks)	20	CV with relevant		
	(ii) No. of ToT certified trainer 1 (10 Marks)		documents		
	Total no of participants trained in Solar Energy in last 3 years				
	(i) No. of Trained participants 401 and above (10 Marks)				
	(ii) No. of Trained participants between 301 to 400 (8 Marks)	10			
d	(iii) No. of Trained participants between 201 to 300 (6 Marks)	10	Centre-wise number		
	(iv) No. of Trained participants between 101 to 200 (4 Marks)		of participants trained and placed		
	(v) No. of Trained participants 50 to 100 (2 Marks)		certified by CA and self-declared by		
	Percentage (%) of participants Placed after training in Solar Energy in last 3 years		Head/Authorized Person of the Centre		
	(i) Percentage of Placed participants 90% and above (20 Marks)		(Refer <b>Annexure-4</b> )		
e	(ii) Percentage of placed participants More than 70% to 90 %(15 Marks)	20			
	(iii) Percentage of placed participants More than 50% to 70% (10 Marks)				
	(iv) Percentage of placed participants 30% to 50% (5 Marks)				
	MOU/Tie-up with Industries for industrial on job				
f	training				
	(i) Number of MoU's more than 5 (10 marks)	10	Attach Copies of Mol		
	(ii) Number of MoU's 1 to 5 (05 marks)				
	TOTAL	100			

<sup>(</sup>c) based upon the evaluation/recommendation of the TEC as per above technical scoring criteria, state-wise merit list of the TCs will be prepared.

### 2.4 Financials and Payment terms:

The present funding breakup for SSDP are based on Ministry of Skill Development and Entrepreneurship (MSDE) norms and as per the sanction letter received from MNRE, however it may vary time to time as per notification received from MSDE / MNRE. The details of course fee, assessment charges and boarding & lodging sanctioned per batch is as below:

S.No.	Particulars	Description	Amount (in Lakh)
1	Course fee to the institute*	Rs 49/- per hour × 600 hours ×30 participants	8.820
2	Assessment charges	Rs 800 per participant × 30 participants	0.240
3	Boarding and lodging** (**as per Classification 'X'/'Y'/'Z')	Rs $375 \times 30 \times 90$ days ('X' cities) Rs $315 \times 30 \times 90$ days ('Y' cities)	10.125 8.505
	Rural Areas and any Area not notified as a municipal/town area	Rs $250 \times 30 \times 90$ days ('Z' cities)  Rs $220 \times 30 \times 90$ days	6.750 <b>5.940</b>

<sup>\*</sup>Base cost of rupees 49.00/per hour of training is taken as per the MSDE notification dated 1st January 2021.

The course fee shall be **Rs. 53.90** (10% increase of base cost @ **Rs 49**) per hour per participant as per details provided in MSDE Gazette notification 11<sup>th</sup> November 2020 for batches conducted in North Eastern States, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Andaman & Nicobar Island, Lakshadweep and the districts affected by Left Wing Extremism (LWE) as identified by M/o Home Affairs.

\*\*Categorization of Indian cities for Residential Training Costs

Sr. No.	State	Cities classified as - X	Cities classified as -Y
1	Andhra Pradesh/ Telangana	Hyderabad (UA)	Vijayawada (UA), Warangal (UA), Greater Visakhapatnam (M.Corpn.), Guntur (UA), Nellore (UA)
2	Assam	-	Guwahati (UA)
3	Bihar	-	Patna (UA)
4	Chandigarh	-	Chandigarh (UA)
5	Chhattisgarh	-	- Durg-Bhilai Nagar (UA), Raipur (UA)
6	Delhi	Delhi (UA)	-
7	Gujarat	Ahmadabad (UA)	Rajkot (UA), Jamnagar (UA), Bhavnagar (UA), Vododara (UA), Surat (UA)
8	Haryana	-	Faridabad (M.Corpn.), Gurgaon (UA)
9	Jammu & Kashmir	-	Srinagar (UA), Jammu (UA)
10	Jharkhand	-	Jamshedpur (UA), Dhanbad (UA), Ranchi (UA), Bokaro Steel City (UA)
11	Karnataka	Bengalore/Benga luru (UA)	Belgaum (UA), Hubli-Dharwad (M.Corpn.) Mangalore (UA), Mysore (UA), Gulbarga (UA)

<sup>\*\*</sup>Boarding charges will be adjusted as per actual expenditure on city classification as per details provided in MSDE Gazette notification 1<sup>st</sup> January 2021.

10			T7 1'1 1 (TTA) T7 1' (TTA)				
12	77 1		Kozhikode (UA), Kochi (UA),				
	Kerala	-	Thiruvanathapuram (UA), Thrissur (UA),				
			Malappuram (UA), Kannur (UA), Kollam (UA)				
	Madhya Pradesh		Gwalior (UA), Indore (UA), Bhopal (UA),				
13	Madifya Fradesii	-	Jabalpur (UA), Ujjain (M.Corpn.)				
			Amravati (M.Corpn.), Nagpur (UA),				
		Greater	Aurangabad (UA), Nashik (UA), Bhiwandi				
	Maharashtra		(UA), Solapur (M.Corpn.), Kolhapur (UA),				
		Mumbai (UA),	Vasai-Virar City (M.Corpn.), Malegaon (UA),				
14		Pune (UA)	Nanded- Waghala (M.Corpn.), Sangli (UA)				
15	Meghalaya	_	Shillong				
13	1v10gilalaya		Simiong				
	0.11.1		Cuttack (UA), Bhubaneswar (UA), Raurkela				
16	Odisha	-	(UA)				
	Puducherry		` /				
17	(Pondicherry)	-	Puducherry/Pondicherry (UA)				
	•		Amritsar (UA), Jalandhar (UA), Ludhiana				
18	Punjab	-	(M.Corpn.)				
10			Bikaner (M.Corpn.), Jaipur (M. Corpn),				
19	Rajasthan	-					
19			Jodhpur (UA), Kota (M. Corpn.), Ajmer (UA)				
			Salem (UA), Tiruppur (UA), Coimbatore (UA),				
	Tamil Nadu	Chennai (UA)	Tiruchirappalli (UA), Madurai (UA), Erode				
20			(UA)				
			Moradabad (M.Corpn.), Meerut (UA),				
			Ghaziabad (UA), Aligarh(UA), Agra(UA),				
21	114 D 1 1		Bareilly (UA), Lucknow (UA), Kanpur (UA),				
	Uttar Pradesh	-	Allahabad (UA), Gorakhpur (UA), Varanasi				
			(UA), Saharanpur (M.Corpn.), Noida (CT),				
			Firozabad (NPP), Jhansi (UA)				
22	Uttarakhand		Dehradun (UA)				
22	Ouaraknand	_	Deniadun (OA)				
23	West Bengal	Kolkata (UA)	Asansol (UA), Siliguri (UA), Durgapur (UA)				
23	West Deligai	Koikata (OA)	Tismisor (071), Singuir (071), Durgapur (0A)				

All other cities/towns in various States /UTs which are not covered by classification as "X" or "Y" are classified as "Z".

The breakup of expenditure out of course fee shall be as follows:

- (a) Mobilization of participants
- (b) Post-placement tracking/monitoring
- (c) Curriculum
- (d) Placement Expenses
- (e) Training of Trainer
- (f) Equipment
- (g) Amortization of Infrastructure costs/ utilization
- (h) Teaching aid
- (i) Raw material
- (j) Salary of trainers and support staff
- (k) Uniforms to each participant
- (1) Suryamitra Handbook/ study material to each participant
- (m) Any other expenditure for imparting the training programme.

### 2.4.1 Fund Flow Mechanism

Each programme should have 30 participants. Any revision of fee structure shall be based on MNRE approval, which shall be communicated accordingly. The funds will be released as per common norms of Ministry of Skill Development and Entrepreneurship (MSDE). Advance

(30%) if requested by the TC shall be released against Bank Guarantee (BG) i.e. 30% of the total value of the fund as per norm. TC has to submit the documents for each programme such as: - Utilization Certificate (UC) in GFR 12A, statement of expenditure (SoE), attendance sheet, group photo, assessment & certification receipt, feedback forms, placement information, details of participants in the specified format (Aadhar number of participants is mandatory) and any other information required by NISE.

The schedule of release of payment will be based on MSDE Gazette notification dated 11 November, 2020. The funds should be released to the TCs as per the following schedule:

Installments	% of Installment	Milestone							
	of batch								
1st	30%	On Training Commencement.							
2nd	40%	On completion of successful certification (Payment made for number of candidates certified after adjusting the advance payments)							
3rd	30%	On 70% verified employment (Continuous employment of 3 months-desk and verified placement as per standard norms).							
No fund shall	No fund shall be released for dropout and failed participants								

### 2.5 Infrastructure

- 1. A Class room to accommodate 30 participants with basic teaching aids- white board, tables and chairs for adequate sitting arrangement with audio & video facility.
- 2. Laboratory with minimum 300 sqft area to carryout hands on activities to understand the various concepts related to PV power generation.
- 3. Hostel facility with well-ventilated rooms and proper bedding arrangement to accommodate 30 participants. Separate arrangements for boy and girl participants should be made at the hostel premises.
- 4. Canteen facility with daily breakfast, lunch, dinner with two times tea for the participants. The dining area and food should be hygienic. Weekly menu should be fixed which includes local food dishes and seasonal green vegetables.
- 5. Availability of internet connectivity at the centre, necessarily at IT/ computer laboratory.

### 2.6 General Information

- (a) The documents with its supporting evidences should be properly uploaded on portal.
- (b) The application with incomplete documents/information will be out-rightly rejected and no correspondence for that will be entertained.
- (c) Applications of joint venture / consortium in any form shall not be considered.
- (d) The rent out of training is not allowed and will attract the cancellation of empanelment of TC.
- (e) The Training Partners (TPs) who are applying for multiple Training centres (TCs) within a state shall apply for one centre at one location/city and not exceeding more than 5 centres within the state/UT and also not more than 15 centres in total within the country.
- (f) NISE will prepare a state-wise merit list of the training centres. If two or more training centres get the same marks in evaluation, then the order of selection preference will be as

follows-

- Government Institutes/Universities (Central/State/Deemed to be University/ Private University recognized by UGC)
- Engineering College (Central/State/Private College approved by AICTE) Polytechnic (both private and government approved by designated state authority)/ ITI College (both private and government approved by NCVT/SCVT) PMKK Centre
- Other affiliated Skill Development Centre affiliated from SCGJ/NSDC regarding solar training in academic setup (as mentioned above) shall be considered only.
- (g) The applicant has to deposit an online processing fee (non-refundable) of Rs 5000/- for submitting application for one centre in a state/UT and Rs 2500/- for each additional centre in the same state/UT.
- (h) The non-refundable fee will be submitted through CC Avenue link for the fee payment will be available in the online application form.
- (i) The empanelled TC has to submit the yearly/ quarterly action plan with starting dates of the batches and details of participants in advance in the following format-

S. No.	Duration	Name of	Father's	Date	Permanent	Physically	Category	Aadhar	Mobile.	No. of	Grade	Photograph
			Name & Mother' s Name	of birth	Address, email.id, Mobile No.	Handicapped if	(Gen/SC /ST/OBC)	No.	No	Days attended / Total no. of days of training)		

- (j) Aadhar Enabled Bio-metric System (AEBAS) and IP based camera system is to be used mandatorily at the training centre. The payment shall be released based on AEBAS attendance system or any other similar biometric attendance system in places where AEBAS is not applicable.
- (k) Court of Jurisdiction for any dispute will be Punjab and Haryana high court Chandigarh. The decision of the Competent Authority, NISE shall be final in all matters relating to eligibility, acceptance or rejection of application, mode of selection.

### 2.7 Termination

The empanelment of the TC may be terminated at any point of time if any violation of norms is found during the implementation of the Suryamitra programmes at its centres and accordingly performance bank guarantee shall not be returned.

### Annexure 1

### GENERAL INFORMATION FOR THE QUALIFICATION PACK

2. Sector  3. Qualification Pack  4. Trainee Qualification  10th pass + ITI/ Diploma (Electrical, Electronic Mechanical, Fitter, Instrumentation, Welder)  5. Age  Minimum age: 18  6. Description  • After the training, the candidate wou work as Solar PV Installer. He/competence for mechanical, civil a installation of rooftop Solar PV Power as maintaining them properly ens customer support. He/ She will be traine and will be able to do:  • Site Survey for installation of Solar PV  • Assess the customer's Solar PV require  • Procure Solar PV system components  • Install Civil and Mechanical parts of Solar System  • Install Electrical components of Solar PV  • Test and Commission Solar PV System  • Maintain Personal Health & Safety at p  • Customer orientation for Solar PV System  • Maintain Personal Health & Safety at p  • Customer orientation for Solar PV System  • Maintain Personal Health & Safety at p  • Customer orientation for Solar PV system of photovoltaic systems, that meet the pand reliability needs of customers by in quality craftsmanship and complying w applicable codes, standards, and safety	ald suitable to She has the and electrical Plants as well suring proper ed on Solar PV  System ement  Polar PV  PV System  Project em e, install, components performance acorporating with all

List of Tools& Equipment for a batch of 30 trainees:

r. No.	Name of Tools & Instruments	Quantity (Nos.)
1.	Tool kit	As per requirements
2.	Double ended flat spanner	2 set
3.	Double ended ring spanner	2 set
4.	Combination pliers	4
5.	Side cutting pliers	4
6.	Nose pliers	4
7.	Wire stripper	4
8.	Electrician knife	10
9.	Hack saw frame with blade	4
10.	Hand crimping tools	2
11.	Cable cutter	1
12.	Screw driver	4
13.	Water level	5
14.	Measuring tape	1
15.	Centre punch	1
16.	Standard wire gauge	1
17.	Vanier caliper	1
18.	Line dori	2
19.	Chisel	1
20.	Drill m/c	2
21.	Plumb bob	2
22.	Sprit level	2
23.	Flat file	2
24.	Round file	2
25.	Triangle file	2
26.	Hand saw	2
27.	PVC mallet	2
28.	Ball pin hammer	4
29.	Fuse puller	1
30.	Safety helmet	As per requirement
31.	Safety souse	As per requirement
32.	Safety belt	As per requirement
33.	Nose mask	As per requirement
34.	Safety goggles	As per requirement
35.	Ear plug	As per requirement
36.	PVC hand glove	As per requirement
37.	Cotton hand glove	As per requirement
38.	Reflective jacket	As per requirement
39.	First aid kit	As per requirement
40.	Gum boots	As per requirement
41.	Tong tester AC/DC	2
42.	Digital Multimeter	2
43.	Megger	2
44.	Earth tester	2
45.	Earthing Rod	1
46.	Soldering Iron & Flux	5
47.	Phase Sequence Meter	2
48.	Pyranometer (silicon based)	1

**Demo Equipment** 

	uipment		
Sr. No.	Name of Tool & Instrument		
1.	Tool kit		
2.	Double ended ring spanner		
3.	Combination pliers		
4.	Side cutting pliers		
5.	Nose pliers		
6.	Wire stripper		
7.	Electrician knife		
8.	Hack saw frame with blade		
9.	Hand crimping tools		
10.	Cable cutter		
11.	Screw driver		
12.	Water level		
13.	Measuring tape		
14.	Centre punch		
15.	Standard wire gauge		
16.	Vanier calipash		
17.	Line dori		
18.	Chisel		
19.	Drill m/c		
20.	Plumb bob		
21.	Sprit level		
22.	Flat file		
23.	Round file		
24.	Triangle file		
25.	Hand saw		
26.	Pvc mallet		
27.	Ball pin hammer		
28.	Fuse puller		
29.	Safety helmet		
30.	Safety souse		
31.	Safety belt		
32.	Nose mask		
33.	Safety goggles		
34.	Ear plug		
35.	PVC hand glove		
36.	Cotton hand glove		
37.	Reflective jacket		
38.	Tong tester AC/DC		
39.	MULTIMETER		
40.	Megger		
41.	Erath tester		
42.	End termination of power cable		
43.	Cable tray Erection		
44.	Structure with module mounting		

### Course Module Solar PV Technician (Breakup of Schedule)

Sr. No.	Theory (No. of Days)	Course Module	Practical (No. of Days)	Period Hours	
				Theory	Period
1.	2	Electrical Safety Electrical safety Rules, Simple First Aid, General safety of tools and equipment PPEs, Fire extinguishers, Type of fire extinguishers	2	1	7
2.	3	Electricity Basics	3	1	7
3.	2	Fundamental of Earthing system	2	1	7
4.	5	PV module Fundamentals types of modules and its applications, PV components and configuration etc.	5	1	7
5.	2	Introduction to Solar Photovoltaic, Basic Principle of Photovoltaic Tech.	2	1	7
6.	3	PV System Sizing series & parallel Fundamental, temperature coefficients of current, voltage and power fundamental	3	1	7
7.	3	Performance analysis and troubleshooting monitoring of generation per string incoming & outgoing power at junction box & Inverter level.	3	1	7
8.	3	Requirement & Uses of Tools & Tackles. Basic knowledge of Ammeter Voltmeter, clamp meter tong tester Irradiance sensor temperature sensors	3	1	7
9.	2	Cable tray & cable laying	2	1	7
10.	2	SCADA & Control System	2	1	7
11.	5	End termination of power cable (LT/ HT)	5	1	7
12.	5	Commissioning & testing	5	1	7
13.	4	Structure erection	4	1	7
14.	3	Battery installation& maintenance	3	1	7
15.	2	Check list preparation	2	1	7
16.	2	Pre -requirement of installation of sub-station equipment	2	1	7
17.	5	Basics and erection of transformers, pole erection and stringing	5	1	7
	5	Foundation- reinforcement& Shutting	5	1	7
19.	5	Operation & Maintenance	5	1	7
20.	12	Soft & Entrepreneurship Skills	12	1	7

Note: Any part or whole content and curriculum may change/ update at any point of time based on the industry requirement under the directions of MNRE/NISE.

### **Annexure-4**

### **Self-Declaration**

I, (Name of the Authorized Pe	erson), (Designation of the						
Authorized Person)	(Name and address						
of Training Centre), do hereby declare that the	information provided herein in the online						
application form is true and correct to the best of	f my knowledge and belief and nothing has						
been falsely stated or concealed therein. I underst	and that if the said information as given in						
the application form is found false, at any stage t	he empanelment of the centre will be liable						
to be rejected.							
Date:	Signature						
	(Name of the Authorized Person)						
	Stamp						