National Institute of Solar Energy

(An Autonomous Institute of Ministry of New and Renewable Energy, Govt. of India)
Gwal-Pahari, Gurugram

Advt. No. A-12024/2/2026-Admin **Date: 17.04.2026**

Subject: Engagement of Senior Project Scientist, purely on short-term contract basis in National Institute of Solar Energy, Gurugram, Haryana.

National Institute of Solar Energy (NISE) is an Autonomous Institute of Ministry of New and Renewable Energy, Government of India. NISE is functioning 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.

2. National Institute of Solar Energy (NISE) is implementing a R&D project titled "Hybrid Day-Ahead and Intra-Day Solar Weather Forecasting for Large Parks in India". The project is supported/funded by Grid India and is being carried out in collaboration with major renewable energy developers operating utility-scale solar parks across the country. The project aims to develop, deploy, and validate an advanced hybrid solar forecasting framework integrating Numerical Weather Prediction (NWP), satellite data, ground-based measurements, and sky imager based nowcasting to improve forecast accuracy, scheduling reliability, and grid integration of large-scale solar power. To support the technical execution of this project, NISE invites applications from suitable Indian citizens for engagement for the following posts:

Sl. No.	Name / Division/ Number/ Qualifications/ Experience/ Age	Period of Engagement	Job Description	Consolidated Remuneration
(i)	**Senior Project Scientist** (Medium & Long-Term Solar Forecasting (NWP & Satellite) (i) No. of Position: **01** (ii) **Essential Qualification(s) & Experience:** Bachelor of Technology (B. Tech.) in Renewable Energy / Energy Systems/ Electrical Engineering/ Electronics/ Computer Science/ Artificial Intelligence/ Data Science/ Atmospheric Science/ Meteorology/ Remote Sensing/ Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 08 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. OR	Engagement shall be initially for a period of one year, extendable on a year-to-year basis up to a maximum of two and a half year (30 Months) subject to satisfactory performance and functional requirements of the Institute.	• Benchmark and critically assess performance of NWP-based, satellite-based, and statistical solar forecasting models. • Process and analyse SRRA, satellite, and meteorological datasets for model development and validation. • Develop bias-correction techniques and site-specific calibration approaches for day-ahead forecasting. • Support development of medium- and long-term solar forecasting modules.	Rs.1,20,000/- per month for the first year, Rs.1,25,000/- per month for the second year, and Rs. 1,30,000/- per month for the third year. Consolidated remuneration is inclusive of all applicable taxes. No additional allowances such as Dearness Allowance, House Rent Allowance, residential

	Master of Technology (M.Tech.)/ Master of Science (MS) in Renewable Energy/ Energy Systems/ Electrical Engineering/ Electronics / Computer Science/ Artificial Intelligence/ Data Science / Atmospheric Science/ Meteorology / Remote Sensing/ Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 04 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. **Upper age limit** – 45 years *(as on the closing date of submission of application)*		• Evaluate forecasting performance using RMSE, MAE, nRMSE, MAPE, and skill score metrics. • Contribute to preparation of technical reports, research publications, and project documentation. • Support knowledge transfer, training activities, and stakeholder consultations.	telephone, etc. shall be admissible.

(ii)	**Senior Project Scientist** (Hybrid Solar Forecasting & AI/ML Specialist) (i) No. of Position: **01** (ii) **Essential Qualification(s) & Experience:** Bachelor of Technology (B. Tech.) in Renewable Energy/ Energy Systems/ Electrical Engineering/ Electronics / Computer Science/ Artificial Intelligence/ Data Science/ Atmospheric Science/ Meteorology/ Remote Sensing/ Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 08 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. OR Master of Technology (M.Tech.) / Master of Science (MS) in Renewable Energy / Energy Systems / Electrical Engineering / Electronics / Computer Science / Artificial Intelligence / Data Science / Atmospheric Science / Meteorology / Remote Sensing / Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 04 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. **Upper age limit** – 45 years *(as on the closing date of submission of application)*	Engagement shall be initially for a period of one year, extendable on a year-to-year basis up to a maximum of two and a half year (30 Months) subject to satisfactory performance and functional requirements of the Institute.	• Design and develop hybrid solar forecasting framework integrating NWP outputs, satellite data, ground measurements, and short-term forecasting models. • Develop AI/ML-based forecasting models such as LSTM, CNN, regression and ensemble approaches. • Implement multi-source data fusion and feature engineering pipelines. • Develop scalable algorithms suitable for real-time and near-real-time forecasting applications. • Support deployment of models on centralized computing infrastructure. • Perform model validation, tuning, and performance optimization. • Prepare technical reports, research papers, and documentation. • Support training programmes and stakeholder interactions.	Rs.1,20,000/- per month for the first year, Rs.1,25,000/- per month for the second year, and Rs. 1,30,000/- per month for the third year. Consolidated remuneration is inclusive of all applicable taxes. No additional allowances such as Dearness Allowance, House Rent Allowance, residential telephone, etc. shall be admissible.

(iii)	**Senior Project Scientist** (Short-Term Solar Forecasting & Image Analytics Specialist) (i) No. of Position: **01** (ii) **Essential Qualification(s) & Experience:** Bachelor of Technology (B. Tech.) in Renewable Energy / Energy Systems/ Electrical Engineering/ Electronics / Computer Science/ Artificial Intelligence/ Data Science/ Atmospheric Science/ Meteorology/ Remote Sensing/ Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 08 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. OR Master of Technology (M.Tech.) / Master of Science (MS) in Renewable Energy / Energy Systems / Electrical Engineering / Electronics / Computer Science / Artificial Intelligence / Data Science / Atmospheric Science / Meteorology / Remote Sensing / Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 04 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. **Upper age limit** – 45 years *(as on the closing date of submission of application)*	Engagement shall be initially for a period of one year, extendable on a year-to-year basis up to a maximum of two and a half year (30 Months) subject to satisfactory performance and functional requirements of the Institute.	• Develop short-term and intra-hour solar forecasting models using image-based analytics, satellite inputs, and ground observations. • Implement computer vision and image-processing techniques for cloud detection, motion estimation, and irradiance variability prediction. • Support development and validation of nowcasting models. • Integrate image-derived features into the hybrid forecasting framework. • Analyse high-frequency data for capturing rapid irradiance fluctuations and ramp events. • Prepare technical reports, research papers, and project documentation. • Support training, knowledge dissemination, and stakeholder consultations.	Rs.1,20,000/- per month for the first year, Rs.1,25,000/- per month for the second year, and Rs.1,30,000/- per month for the third year. Consolidated remuneration is inclusive of all applicable taxes. No additional allowances such as Dearness Allowance, House Rent Allowance, residential telephone, etc. shall be admissible.

(iv)	**Senior Project Scientist** (Probabilistic Forecasting & DSM Analytics Specialist) (i) No. of Position: **01** (ii) **Essential Qualification(s) & Experience:** Bachelor of Technology (B. Tech.) in Renewable Energy / Energy Systems / Electrical Engineering / Electronics / Computer Science / Artificial Intelligence / Data Science / Atmospheric Science / Meteorology / Remote Sensing / Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 08	Engagement shall be initially for a period of one year, extendable on a year-to-year basis up to a maximum of two and a half year (30 Months) subject to satisfactory performance and functional requirements of the Institute.	• Develop probabilistic solar forecasting approaches including P50, P75, P90 and ensemble-based uncertainty models. • Validate forecast reliability and sharpness using statistical metrics such as CRPS and quantile-based evaluation. • Analyse SCADA and deviation datasets to assess forecast	Rs.1,20,000/- per month for the first year, Rs.1,25,000/- per month for the second year, and Rs.1,30,000/- per month for the third year. Consolidated remuneration is inclusive of all applicable taxes. No

	years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. OR Master of Technology (M.Tech.) / Master of Science (MS) in Renewable Energy / Energy Systems / Electrical Engineering / Electronics / Computer Science / Artificial Intelligence / Data Science / Atmospheric Science / Meteorology / Remote Sensing / Power Systems, or any other relevant allied discipline from a recognized University/ Institute with 04 years of experience relevant to solar forecasting, renewable energy systems, modelling, data analytics, atmospheric sciences, power systems, or associated domains aligned with job description. **Upper age limit** – 45 years *(as on the closing date of submission of application)*		compliance and scheduling performance. • Simulate reduction in DSM penalties using historical operational data. • Conduct techno-economic analysis to demonstrate operational benefits for utilities and system operators. • Assess forecast performance across diverse geographic and meteorological conditions. • Prepare technical reports, research papers, and documentation. • Support stakeholder consultations and training activities.	additional allowances such as Dearness Allowance, House Rent Allowance, residential telephone, etc. shall be admissible.

3. Desirable Qualification and Experience (Common for all positions)

i. PhD in relevant allied discipline. Relaxation of two (2) years in the experience requirement will be provided for candidates possessing a PhD in a relevant field.
ii. Experience in solar resource assessment, satellite data processing, numerical weather prediction (NWP) modelling, machine learning–based forecasting, renewable energy modelling, or power system integration studies.
iii. Proficiency in Python-based analytics using libraries such as NumPy, Pandas, SciPy, Matplotlib, Scikit-learn, TensorFlow/PyTorch, and Xarray, with experience in High Performance Computing (HPC) environments for large-scale data processing and modelling.
iv. Experience in geospatial analysis using GeoPandas, Rasterio, GDAL, or NetCDF4, and handling large meteorological, satellite, or SCADA datasets related to renewable energy forecasting systems.

Details of Reservation is as follows: -				
Sl. No.	**Name of the Post**	**Category**		
		OBC (NCL)	**UR**	**Total Posts**
(i)	**Senior Project Scientist**	1	3	4
	Total	**1**	**3**	**4**

4. Terms & Conditions: -

i. The NISE reserves the right to accept or reject in part or in full any or all the responses without assigning any reason whatsoever. The number of positions may vary and the NISE reserves the right to increase or decrease the number of positions or create a panel for filling up positions arising in future.

ii. The engagement is purely on short-term contract basis initially for a period of one year, extendable on a year-to-year basis up to a maximum of two and a half year (30 Months) subject to satisfactory performance and functional requirements of the Institute and decisions taken / approval of the Competent Authority in NISE, from time to time.

iii. The engagement of the above position is of a temporary (non-Official) nature and can be withdrawn at any time within the period mentioned above without assigning any reason or prior notice and shall not bestow any claim or right for seeking regular employment in the National Institute of Solar Energy.

iv. **Warning:** Selection in the Institute is free, fair and merit based. Any attempt to influence the selection process & submission of false information detected at any stage is liable to lead to termination of the candidature of service and legal action against the concerned individual will be initiated.

v. No other allowance or facilities like HRA, medical, accommodation, etc., will be permissible. No. TA/DA will be provided to any candidate for attending the interview / joining the engagement upon selection.

vi. **Leave:** The candidate would not be entitled to any kind of regular leave. However, they would be entitled to Casual Leave of 1.5 days in a calendar month, to be calculated on pro-rata basis.

vii. The NISE is committed to comply all the provisions of labour laws applicable to autonomous organization registered under society act.

viii. **Office time and working hours:** Engagement would be on full time basis. Working hours shall be from 9.00 AM to 5.30 PM during working days including half an hour lunch break in between. They will not be allowed to take any other assignment during the period of contractual engagement. The candidates may be called on Saturday/ Sunday/ other Gazette holidays, if required. All positions will be based at NISE, Gurugram, with occasional travel to project sites, collaborating institutions, and solar parks as per project requirements.

ix. The Income Tax or any other tax liable to be deducted, as per the prevailing rules will be deducted at source before effecting the payment for which the office will issue TDS certificate.

x. The Intellectual Property Rights (IPR) of the data collected as well as the deliverables produced for the institute shall remain with this institute. No one shall utilize or publish or disclose or part with, to a third party, any part of the data or statistics or proceedings or information collected for the purposed of this assignment or during the course of the assignment for the institute, without the express written consent of the institute. The candidate shall be bound to hand over the entire set of records of assignment to the institute before the expiry of the contract, and before the final payment is released by the institute.

xi. **Conflict of interest:** The candidate engaged by this institute, shall in no case represent or give opinion or advice to others in any matter which is adverse to the interest of this institute.

xii. The engagement may be terminated at any time by the institute without assigning any reasons by giving a notice of 15 days. In case, the candidate desires to leave the assignment, he/she is to give 15 days' notice which can be curtailed / extended depending upon the work load.

xiii. Mere fulfilment of educational qualification will not entitle the candidate for being called for interview. The applications will be shortlisted based on the academic records / educational qualifications / experience in the required field relevant to the actual job requirements by Screening Committee. Incomplete applications will be out-rightly rejected and no correspondence for that will be entertained.

xiv. An intimation regarding Interview will be sent to the shortlisted candidates via email separately.

xv. The candidate seeking benefit of relaxation of age for OBC (NCL) are required to furnish valid requisite certificate issued in light of provision issued by Central Govt. from time to time.

xvi. The candidates to carry all the original testimonials and one set of self-attested photocopy at the time of interview along with the original printed application form.

xvii. Any resulting dispute arising out of this advertisement including the engagement process shall be subject to the sole jurisdiction of Punjab & Haryana High Court, Chandigarh.

xviii. Other terms and conditions will be as stipulated in the engagement offer as and when issued.

xix. **Relaxation:** The upper age limit is relaxable for reserved posts as per Govt. of India Rules.

xx. The crucial date for determining the age limit, qualification and experience shall be the last date of receipt of applications.

5. How to apply:

i. **Submission of Application:** Interested candidates may send their duly filled application form in the prescribed format as per **Annexure-I** along with attested photocopies of documents in support of educational qualifications, age and experience. The requisite filled application form with attested photocopies of documents in support of educational qualifications, age and experience should be submitted via email in a single PDF latest by **21 days** from the date of publication of the advertisement on NISE website **www.nise.res.in** writing the subject as "Application for "Name of the position" in NISE to the following email ID: **recruitment.nise@nise.res.in.**

ii. **Application fees:** No fees are required to be paid by the applicant.

iii. **Announcements:** All further announcements / details pertaining to this process will only be published /provided on NISE websites **www.nise.res.in** from time to time. Candidates are advised to regularly keep in touch with the authorized NISE website **www.nise.res.in** for details and updates. In case of any queries please write to **recruitment.nise@nise.res.in**.

iv. **Decision:** The decision of the Director General, NISE, Gwal-Pahari, Gurugram, Haryana in all matters relating to eligibility, acceptance or rejection of applications, mode of selection, and conduct of interview will be final and binding on candidate.

Sd/-
Director (Administration)
National Institute of Solar Energy
Gwal Pahari, Gurugram-Faridabad Road,
Gurugram – 122003 (Haryana)

ANNEXURE-I

APPLICATION FORMAT FOR ENGAGEMENT IN THE NATIONAL INSTITUTE OF SOLAR ENERGY (NISE), PURELY ON SHORT-TERM CONTRACT BASIS AT GURUGRAM, HARYANA-122003

Photograph (Paste only /Do not Staple)

NAME OF THE POST APPLIED FOR ……

DIVISION ……

1.	**Name in Block letters.**		
2.	**Father's Name**		
3.	**Date of Birth (DD/MM/YY)**		
4.	**Nationality**		
5.	**Age (as on last date of application)**	**Years ……. Months ……. Days ……**	
6.	**Caste**		
7.	**Category**		
8.	**Are you seeking Age Relaxation**	**Yes** ☐	**No** ☐
9.	**Mailing address:**		
10.	**Telephone/mobile No:** **E-mail address**		
11.	**Permanent address:**		

12.	Educational Qualifications:				
Sl. No.	Course	Subject	University / Institute	Year of Passing	Division / Class

13. Work Experience (can attach a separate sheet)

Sl. No.	Organization/ Institute	Post held	Scale of Pay/ Consolidated Amount	Period		Nature of work	Reason for Leaving	Permanent or Temporary
				From	To			

14. Area of specialization:

…….

I hereby undertake that I shall abide all the terms and conditions laid down in the advertisement.

(Signature of Candidate)

Date: ……..

Place: …….