



सी.एस.आई.आर.–राष्ट्रीय भौतिक प्रयोगशाला  
**CSIR-NATIONAL PHYSICAL LABORATORY**  
 (वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)  
 (Council of Scientific & Industrial Research)  
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**Advertisement No.Rectt./03/2023**  
**“FLOATING (WALK-IN) INTERVIEW ON 21/11/2023 and 22/11/2023”**

CSIR-NPL, New Delhi (a constituent laboratory of CSIR) desires to recruit qualified incumbents for purely temporary and contractual positions under the various ongoing externally funded & time targeted sponsored projects the details of which are given below:-

***Day-1 (Walk in Interview for the post code 1.0 to 12.0 will be held on 21<sup>st</sup> November, 2023)***

Post code	Post & No. of positions	Essential Educational Qualification	Desirable	Job description	Project /Scheme Title	Tenure of project & Emoluments/ stipend per month	Age as on 21/11/23	Date of Interview
1.0	Scientific Administrative Assistant/ Field worker One (01)	Graduate in any discipline	Graduation in Science	Miscellaneous project work	“Redox Flow battery”	Rs 18,000/-+ HRA (up to 31.03.2025)	50 Years	21/11/2023
2.0	Senior Project Associate One (01)	Ph.D. in Chemistry	Ph.D. in Electrochemistry	Assembly of flow batteries and performance analysis	“Redox Flow battery”	Rs. 42,000/-+ HRA (up to 31.03.2025)	40 Years	21/11/2023
3.0	Project Associate- I One (01)	M.Sc. Physics/Chemistry	NET/ GATE	Development of electrode materials for Redox flow batteries	“Redox Flow battery”	Rs. 25,000/- + HRA (up to 31.03.2025)	35 Years	21/11/2023
4.0	Research Associate-I One (01)	Ph.D Physics / Electrical engineering	Quantum transport and memory device fabrication and characterization	Memory device fabrication and electrical characterization and quantum transport measurements.	“Quantum Conductance based Multi-level information Storage Memristive Devices”	Rs. 42,000/-+ HRA (up to 31.03.2024)	35 Years	21/11/2023
5.0	Project Associate- II One (01)	M.Sc. Physics and NET Qualified- CSIR-UGC NET Including lectureship	Experience in working on synthesis of carbon nanotubes and their flexible papers.	Day to day experimentation on CNT and CNTs paper and their analysis.	“Development of a process technology for preparation of carbon nanotube based flexible paper of size 1 meter x 1 meter”	Rs.35,000/-+ HRA (up to 31.03.2025)	35 Years	21/11/2023

6.0	Project Associate- I One (01)	M.Sc. in Biochemistry/ Analytical Chemistry/ Applied Chemistry/ Organic or Inorganic chemistry with CSIR-NET.	Selected through National Eligibility Tests- CSIR UGC NET or GATE or A selection process through national level examinations conducted by Central Government and Departments and their Agencies and Institutions	Chemical analysis of food grains, development of certified reference materials to check the quality traceability of products	"Millet-Sustaining Health through Research and Innovation by Analysis of Nutrients and Nutraceuticals to Achieve global Awareness (SHRI-ANNA)"	Rs. 31,000/-+ HRA (up to 31.03.2025)	<b>35 Years</b>	<b>21/11/2023</b>
7.0	Project Associate-I One (01)	B.Tech in Engineering	Experience of 2D materials growth during dissertation work.	R&D	MXenes (Ti <sub>3</sub> AlC <sub>2</sub> ) assisted 2D material wearable electronic sensor for monitoring the motor symptoms of Parkinsons disease.	Rs. 25,000/- + HRA (up to 17.07.2026)	<b>35 Years</b>	<b>21/11/2023</b>
8.0	Junior Research Fellowship (JRF) Three (3)	M.Sc. Physics/ Applied Physics / Electronics/ Instrumentation with minimum 55% marks + valid GATE/NET Qualified score.	NA	The fellowships will exclusively be awarded for Ph.D courses "Solar photovoltaic and related applications" under National Renewable Energy fellowship (NREF) of MNRE	"National renewable energy Fellowship" (NREF) Programme	Rs.37,000/-+ HRA 05 Years (02 years of JRF + 03 years of SRF)	<b>28 Years</b>	<b>21/11/2023</b>
9.0	Project Associate-I Two (02)	M.Sc. Chemistry	Not Applicable	The fellowships will exclusively be awarded to carrying out the pitch based carbon fiber project work.	"Coal tar pitch based fibers and its conversion in to carbon fibers"	Rs.25,000/-+ HRA (Two Years)	<b>35 Years</b>	<b>21/11/2023</b>

10.0	Project Associate- I One (01)	M.Sc. in Environmental Sciences.	Trace Gases measurements (NH <sub>3</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , etc. ) using Gas Analyzers and data downloading -Knowledge of maintenance of Trace Gas Analyzers and other instruments. -Knowledge in operation of Ion Chromatograph.  -Data handling and analysis.	Field surveys/ trials. Proving collection / testing including  -Participation in Field measurements over various locations of India. -Bi-weekly measurements of gas/ aerosol concentrations by DELTA technique at 12 locations and ammonia by ALPJA technique at 50 locations across South Asia for 2.5 years , chemical analysis by IC: preparation and extraction of samplers according to UKCEH protocol: - Assistance in hosting of NH3 instrument inter-comparison Campaign at NPL (6) Weeks ,probably winter 2021/22): Assistance and participation in organizing intensive aerosol composition campaign across South Asia.	GCRF South Asian nitrogen Hub (SANH)	Rs.25,000/- + HRA (up to 31.08.2024)	35 Years	21/11/2023
11.0	Junior Research Fellow One (01)	M.Tech./ M.E./ M.S. (Electrical Engineering/ Electronics & Communication Engineering/Electronics Engineering/Information Technology/Computer Science and Engineering) with CSIR/UGC-NET or valid GATE Qualified. or M.Sc./ M.S. (Electronic Science/ Physics) with CSIR/UGC-NET or valid GATE Qualified.	Strong background in communications, signal processing, power system. Additionally, candidate with good exposure to data analysis are highly encouraged to apply.	Carry out work as directed and for project. The successful candidate can also be considered for admission to the Ph.D. program as a regular full time scholar based on the eligibility criteria at NPL	Metrological characterization of Multi Vendor Phasor Measurement Units as per IEC/IEEE 60255-118-1:2018 standard for their interoperability and effective implementation in the Indian Power Grid.	Rs. 31,000/- (consolidated). One year from the date of joining (Likely to be extended) (up to 06.11.2025)	28 Years	21/11/2023
12.0	Junior Research Fellow One (01)	M. Sc. Physics/ Applied Physics/ Electronics/ Instrumentation with minimum 55% marks + valid GATE/ NET Qualified Score.	NA	To perform experiments, instrumentation, analysis and documentation related to development of the nano-textured Si for nanocrystalline thin silicon as a carrier-selective layers deposition, solar cell testing, etc.	Development of nanocrystalline thin silicon as a carrier-selective layers on nanotextured silicon wafers for silicon heterojunction solar cells fabrication	Rs. 31,000/- + HRA (upto 03.08.2026)	28 Years	21/11/2023

***Day-2 (Walk in Interview for the post code 13.0 to 24.0 will be held on 22<sup>nd</sup> November 2023)***

Post code	Post & No. of positions	Essential Educational Qualification	Desirable	Job description	Project /Scheme Title	Tenure of project & Emoluments/ stipend per month	Age as on <b>22/11/23</b>	Date for Interview
13.0	Project Associate- I One (01)	Master's Degree in Physics/Applied Physics/Electronics / Instrumentation : with CSIR-UGC NET including Lectureship or valid GATE	Experience in Design, Development, data acquisition and programming.	Precision measurements and analysis in Temperature Quantum Metrology.	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 31,000/- + HRA (upto 31.03.2028)	<b>35 Years</b>	<b>22/11/2023</b>
14.0	Project Associate- I One (01)	Master's Degree in Physics: with CSIR-UGC NET including Lectureship or valid GATE	Experience in Design, Development, precision measurements, data acquisition and programming, low-temperature transport, measurements on Impedance Bridges for Impedance Standards.	Precision measurements and analysis in on the realization of the unit of Capacitance through AC QHR method	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 31,000/- + HRA (upto 31.03.2028)	<b>35 Years</b>	<b>22/11/2023</b>
15.0	Project Associate- I One (01)	Master's Degree in Physics or B.E. / B.Tech in Electronics: with CSIR-UGC NET including Lectureship or valid GATE	Experience in any of the following fields: transport measurements, device physics, Microwave engineering and instrumentation, data acquisition and interfacing , Modeling and simulation in the field of quantum transport.	Low noise electrical transport measurements in microwave environment at cryogenic temperature for quantum current metrology.	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 31,000/- + HRA upto 31.03.2028)	<b>35 Years</b>	<b>22/11/2023</b>

16.0	Project Associate- I One (01)	B.E. / B.Tech (Electronics/Electrical)	Experience in Design/M.Tech (Design) Development, precision measurements, data acquisition and programming.	Design and Establishment of required measurement setup, Precision measurements and analysis in various parameters for establishment of Quantum standards	“Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)”	Rs. 25,000/- + HRA (upto 31.03.2028)	35 Years	22/11/2023
17.0	Project Associate- I One (01)	M.Sc. in Physics/Applied Physics/Electronics, with CSIR-UGC NET including Lectureship or valid GATE	Experience in working with optical setup, basic electronic circuit design, data acquisition and programming.	Precision measurements and analysis through laser spectroscopy.	“Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)”	Rs. 31,000/- + HRA (upto 31.03.2028)	35 Years	22/11/2023
18.0	Project Associate- I One (01)	B.E. / B.Tech (Mechanical)	Experience in Design / M.Tech (Design) Development, precision measurements, data acquisition and programming.	Design and Establishment of required measurement setup, Precision measurements and analysis in various parameters for establishment of Quantum standards	“Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)”	Rs. 25,000/- + HRA (upto 31.03.2028)	35 Years	22/11/2023

19.0	Senior Project Associate One (01)	Master's Degree in Physical Science/ Materials science with Four years experience in research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and services	(i) Growth of epitaxial graphene of SiC (ii) Exposure to AFM, Raman spectroscopy, photoemission spectroscopy (PES) and low-energy electron diffraction (LEED) techniques (iii) Metal contact deposition using Magnetron sputtering, electron beam deposition.	Growth and optimization of epitaxial graphene on SiC to realize graphene-based Quantum Hall Resistance Standard. Detailed characterization of epitaxial graphene using AFM Raman, PES, LEED, and magneto - transport measurements.	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 42,000/- + HRA (upto 31.03.2028)	40 Years	22/11/2023
20.0	Senior Project Associate One (01)	(i) M.Sc in Physics / Applied Physics, or (ii) B.E. / B.Tech in Electronics / Electronics and Communication Engineering (ECE): with Four years experience in research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and services	(i) Laser based precision spectroscopy (ii) Exposure to narrow linewidth lasers and their frequency stabilization techniques. (iii) Design and fabrication of electronic circuits.	Setting up experiment, data acquisition and analysis for characterizing ionic motion within ion trap through precision spectroscopy.	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 42,000/- + HRA (upto 31.03.2028)	40 Years	22/11/2023
21.0	Project Assistant Three (03)	Three Year Diploma in Electronics and Communication Engineering (ECE) / Electronics instrumentation / Mechanical Engineering	Experience in Design. Development of basic electronics circuits, handling of sophisticated instruments.	Integration and handling of Quantum metrology devices/ systems	"Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)"	Rs. 20,000/- + HRA (upto 31.03.2028)	50 Years	22/11/2023

22.0	Project Scientist -1 One (01)	(i) Doctoral Degree in Physical Sciences/Physics/Applied Physics <b>or</b> (ii) M.Tech in Electronics and Communication Engineering/ Instrumentation	Experience in nanofabrication work using ICP- Reactive Ion Etching and E-Beam Lithography and working in clean room.	Nanofabrication instrumentation installation, maintenance, and nanofabrication in clean room	“Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)”	Rs.56,000/- + HRA (upto 31.03.2028)	<b>35 Years</b>	<b>22/11/2023</b>
23.0	Project Scientist -1 One (01)	(i) Doctoral Degree in Physical Sciences/ Physics/ Applied Physics <b>or</b> (ii) M.E./M.Tech in Electronics and Communication Engineering/ Instrumentation / Mechanical / Electronics	Experience in Design, Development, precision measurements, data acquisition, and integration of high-end instrumentation.	Precision measurements and analysis in Temperature Quantum Metrology.	“Quantum Metrology for Realization of SI Units and Allied Parameters for Boosting International Trade and Industrial Growth of the Nation Strengthening and Modernization of Metrology through Research and Technology Harmony (SAMARTH)”	Rs.56,000/- + HRA (upto 31.03.2028)	<b>35 Years</b>	<b>22/11/2023</b>
24.0	Project Associate-I One (01)	M.Sc. Chemistry	Not Applicable	Development of bipolar plate and its characterization for various properties	Development of fabrication of graphite bipolar plates using needle coke	Rs.25,000/-+ HRA (upto 30.10.2025)	<b>35 Years</b>	<b>22/11/2023</b>

### **Instructions:-**

1. Only those Candidates who have completed the essential qualification & result has been declared are eligible to apply. Experience, if claimed, in any position should only be post-qualification experience.
2. Candidate can apply for maximum 02 (Two) positions. Separate application may be submitted for each post-code, if a candidate is desirous of applying for more than 01 (One) Positions.

### **Service conditions:-**

1. DA & CCA: Scientific / Technical Manpower in projects are not entitled to DA & CCA.
2. House Rent Allowance (HRA): HRA is allowed to all categories except for Project Investigator (PI) / Project Coordinators in Non-Government / Voluntary / Organizations (NGO/VO) / Project Manager as per Central Government norms applicable in the city/location where they are working. The percentage required for calculating HRA will be based on the remuneration.

3. Medical Benefits : The Scientific / Technical manpower will be entitled for medical benefits as applicable in the implementing institution.
4. Leave and other entitlements: The Scientific / Technical manpower are entitled to leave as per rules of the host institution Maternity leave as per the Govt. of India instructions issued from time to time would be available to all categories. The travel entitlement is as per Institute norms.
5. Bonus, Gratuity & Leave Travel Concession: The Scientific / Technical manpower will not be entitled to these allowances.
6. **Mode of Selection:** The candidates will be shortlisted for interview through a screening process. Only the short-listed candidates will be interviewed by the Selection Committee.
7. **In case the final certificates reflect CGPA, GPA, etc in that case the candidate should convert the same in to equivalent percentage as per the approved formula of the university in the application and a copy of such conversion formula must be attached alongwith the application.**
8. **Relaxation of age for SC/ST/ OBC /PwBD / Women: Age limit** for Project staff shall be as per GOI rules.

Eligible candidates may appear together with downloaded application form duly filled-up, for “Floating (Walk-in) Interview” on 21 Novemberr, 2023 for Post Code(s) 1.0 to 12.0 and 22 November, 2023 for Post Code(s) 13.0 to 24.0 between 09.00 AM to 10.00 AM (candidate will not be entertained after 10.00 AM under any circumstance) in the Auditorium of the laboratory, with complete application giving the full details inclusive of marks starting from secondary examination onwards along with latest passport size photograph, original and self attested copies of all certificates/testimonials. Candidates belonging to SC/ST/OBC/PwBD should bring copies of certificates in the proper format issued by the appropriate authority as per the latest instructions issued on the subject.

**No TA will be paid to the candidates for appearing in the interview.**

**Note:**

1. Candidate should go through the advertisement carefully to check their suitability in the area.
2. In case a candidate fails to produce any of the above mentioned documents/testimonials in original at the time of registration, he/she shall not be allowed to register for the further process.
3. The posts for various projects that are advertised are purely contractual. The positions advertised are provisional and subject to ascertaining the availability of funds under the respective projects before the declaration of results and issue of engagement letter.