

# सीएसआईआर—राष्ट्रीय भौतिक प्रयोगशाला CSIR- NATIONAL PHYSICAL LABORATORY

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)
(Council of Scientific & Industrial Research)
डॉ. के.एस. कृष्णन् मार्ग, नई दिल्ली – 110012
Dr. K.S. Krishnan Marg, New Delhi – 110012



ADVERTISEMENT NO.: Rectt. 02/2022

Lasi Dale di Teceldi di Addilcalidii   30 May. 2022	Last Date of recei	pt of Application	30 <sup>th</sup> May, 2022
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CSIR-National Physical Laboratory, New Delhi, is a premier laboratory under the Council of Scientific & Industrial Research (CSIR), and the National Metrology Institute (NMI) created by an Act of Parliament. Currently, it comprises of six scientific / technical divisions, viz. (i) Physico- mechanical Metrology Division, (ii) Electrical & Electronics Metrology Division, (iii) Environmental Sciences & Biomedical Metrology Division, (iv) Advanced Materials & Devices Division, (v) Indian Reference Materials (Bhartiya Nirdeshak Dravya) Divisions, and (vi) Indian Standard Time Division. The focus is on the advancements in the area of quantum metrology and the development of measurement techniques/protocols for new parameters, ranging from time & frequency to solar cell calibration. CSIR-NPL has very active research groups working in the areas of quantum phenomena based metrology, precision measurement relating to engineering materials, electronic materials, nanoscience & nanotechnology, thin films & surface science, graphene & carbon nanotubes, environmental pollutants & bio-instruments, cryogenics and instrumentation.

Applications are invited from enthusiastic, young Indian researchers having excellent academic record and proven scientific achievements along with the requisite experience and a high degree of motivation and desire to take up research as a career in the areas of Applied Physics / Applied Optics / Electronics/ Mechanical /Computer/ Instrumentation / Electrical / Chemistry etc. to fill up the vacancies for the posts of Scientist(s) as per the details given below:-

Designation	No. of Posts	Pay Level	Basic Pay	*Total Emoluments	**Upper Age limit not exceeding (as on <u>30.05.2022</u> )
Scientist	23+2(Backlog) (Twenty Five)	11	Rs. 67700/-	Rs. 116398/-	32 Years

<sup>\*</sup> Total Emoluments means approximate total emoluments on minimum of scale including House Rent Allowance in Class 'X' City.

Applicants are requested to carefully go through the full text of the advertisement on CSIR – NPL website <a href="http://www.nplindia.org">http://www.nplindia.org</a> regarding qualifications, subjects, fields of specializations and job requirements, etc. prescribed for each position and then fill up the application form carefully.

#### **Vacancy Details**

Post Code	Pay Level	Name and No. of positions	Essential Educational Qualifications	Desirable	Role Description	
PC-1	11	Scientist 02 (Two) - 01 – OBC 01 – SC	M. E. / M. Tech (Instrumentation/ Electronics Engg.) OR Ph.D submitted (Instrumentation/ Electronics Engg.)	Experience in Mass or Length Metrology, Laser Interferometer, Optics, Nano Technology	Realization of SI unit Meter. Development and maintenance of standards for Length Dimension and Nano metrology. Development of techniques and instrumentation for Mass, Length, or Dimension and Nano metrology.	
PC-2	11	Scientist 03 (Three) 01 – EWS 01 – UR 01 – SC	M. E. / M. Tech. (Mechanical Engg.) OR Ph.D submitted (Mechanical Engg.)	Experience in Fluid Flow or Force or Temperature Metrology	Design, development, maintenance and upgradation of Temperature, Humidity, Moisture and Thermo-physical Metrology or Force or Fluid Flow Standards and dissemination to various users	

<sup>\*\*</sup>Please see Age Relaxation under Relaxation Column.

Post Code	Pay Level	Name and No. of positions	Essential Educational Qualifications	Desirable	Role Description
PC-3	11	Scientist 01 (One) - 01- UR	Ph.D submitted (Physics/Applied Physics)	Experience in the field of precision measurement in Pressure/Vacuum metrology	Development of Pressure & Vacuum standards. Precision measurement of Pressure/Vacuum and handling of various instruments
PC-4	11	Scientist 01 (One) - 01- UR	M. E./M. Tech. (Electronics) OR Ph.D submitted (Electronics)	Experience in development of ultrasonic instruments, techniques	Design, development, maintenance and upgradation of Ultrasonic Metrology, instruments, standards and dissemination to users
PC-5	11	Scientist 01 (One) - 01- OBC	M. E. / M. Tech (Instrumentation/ Electronics Engg.) OR Ph.D submitted (Instrumentation/ Electronics Engg.)	Experience in the field of precision measurement in Acoustic metrology	Development of Acoustics standards and Atmospheric acoustic instruments. Precision measurement of Acoustics and Vibrations, and handling of various instruments
PC-6	11	Scientist 03 (Three) 01 – EWS 01 – UR 01 – SC	M. E. / M. Tech (Electrical Engg./ Electronics Engg./ Instrumentation Engg.) OR Ph.D submitted (Electrical Engg./ Electronics Engg./ Instrumentation Engg.)	Experience in precision measurements in the area of AC power & energy, AC/DC high voltage and DC metrology	R&D in electrical metrological parameters Maintenance & dissemination of metrological parameters for LF/HF impedance & DC, AC High Voltage & Current and AC Power & Electrical power
PC-7	11	Scientist 01 (One) - 01- UR	Ph. D submitted (Physics/Applied Physics/Nonlinear optics/Applied optics)	Experience in low temperature optical studies, superconducting thin films, nanostructuring, quantum optical metrology	Quantum Nanophotonics Low temperature optical measurement set-up, optical characterization of single photon detectors, and fabrication of superconducting materials
PC-8	11	Scientist 01 (One) - 01- ST	Ph. D submitted (Physics/Applied Physics)	Experience in measurements of atmospheric parameters / atmospheric process modelling	Measurement of Atmospheric parameters/ Atmospheric modelling related activities
PC-9	11	Scientist 01 (One) - 01- UR	Ph.D submitted (Chemistry)	Experience in measurements of atmospheric parameters	Atmospheric Measurements/ Atmospheric Metrology/Gas Metrology related activities
PC-10	11	Scientist 01 (One) - 01- UR	Ph. D submitted (Physics/Applied Physics)	Experience in carbon based materials	R&D on different forms of Carbon materials for industrial applications. Operation and maintenance of high temperature furnace and equipment
PC-11	11	Scientist 01 (One) - 01- OBC	Ph. D submitted (Physics/ Electronics)	Experience in Photovoltaic devices and systems	R&D on Photovoltaics, processes fabrication and related metrology

Post Code	Pay Level	Name and No. of positions	Essential Educational Qualifications	Desirable	Role Description
PC-12	11	Scientist 02(Two) 01 – OBC 01 – SC	Ph.D submitted (Chemistry)	(i) Experience and expertise in the area of testing of ores, minerals, metals, alloys, food, water, oil, pesticides etc for preparation of certified reference materials (ii) Expertise in handling of AAS/ICP/IC/HPLC/UV-VIS etc analytical techniques as well as classical gravimetry and titremetry	Characterization of inorganic/organic material by various analytical techniques, data interpretation etc. for development/production of Bhartiya Nirdeshak Dravyas (BND: Indian Reference Materials)
PC-13	11	Scientist 01 (One) - 01- ST	Ph.D submitted (Physics/Applied Physics)	Experience in ion trapping and laser cooling /instrumentation/basic electronics and measurements with basic optics handling techniques	To participate in R&D for developing optical frequency standards.
PC-14	11	Scientist 01 (One) - 01- UR	M.E./ M.Tech. (Instrumentation/ Electrical/ Electronics & Communication Engineering) OR Ph.D submitted (Instrumentation/ Electrical/ Electronics & Communication Engineering)	Experience in cold atoms /instrumentation/basic electronics, microwave design and measurements with basic optics handling techniques	To participate in R&D of atomic frequency standards involving instrumentation, optics and precision measurements
PC-15	11	Scientist 01 (One) - 01- OBC	M.E. / M.Tech. (Electrical & Electronics Engineering.) OR Ph.D submitted (Electrical & Electronics Engineering.)	Experience in LF Voltage & Current/Phasor Measurement Unit and Microwave measurement	To participate in the metrological activities of LF Voltage & Current, Phasor Measurement Unit and Microwave measurements to bring value addition to the calibration services.
PC-16	11	Scientist 01 (One) - 01- OBC	M.E./ M.Tech. (Instrumentation/ Electrical & Electronics Engineering) OR Ph.D submitted (Instrumentation/ Electrical & Electronics Engineering)	Experience in magnetic Parameters instrument development/ instrumentation & Electronics	To participate in magnetic metrological activities and its related parameters to bring value addition to the calibration service
PC-17	11	Scientist 01 (One) - 01- UR (PwBD) #	Ph.D submitted (Physics/Applied Physics)	Experience in Document handling and management of testing/calibration/accreditation	To contribute to the Centre for Calibration and Testing for dealing with management of equipment received for calibration and testing

<sup>#</sup> Reserved for Persons with Benchmark Disabilities (locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy)

#### **Backlog Vacancies Details**

Post Code	Pay Level	Name and No. of positions	Essential Educational Qualifications	Desirable	Role Description
PC-18	11	Scientist 01 (One) - 01- OBC	M. E. / M. Tech (Mechanical Engg./ Instrumentation & Control/ Applied Physics) OR Ph.D submitted (Mechanical Engg./ Instrumentation & Control/ Applied Physics)	Experience of Measurements in the field of Temperature, pressure and vacuum, fluid flow, force and hardness metrology etc	R&D, maintenance & dissemination of metrological parameters and precision measurements
PC-19	11	Scientist 01 (One) - 01- OBC	M. E. / M. Tech (Computer Engg./ Computer Science/ IT/Computer Application or equivalent) OR Ph.D submitted (Computer Engg./ Computer Science/ IT/Computer Application or equivalent)	Experience in handling IT Network devices, Security devices & Protocols. Implementation of standards for IT Security & Services (ISO 27001, ISO 20000/ITIL). Data Center (Tier-3 or better) setup and operation	IT Security hardening and its ISO 27001 compliance, IT Service Management for end user support and its ISO 20000/ ITIL compliance, Linux Server Administration, Network troubleshooting and network architecture optimization.

UR: Unreserved; SC: Scheduled Caste; ST: Scheduled Tribe; OBC: Other Backward Class; PwBD: Persons with Benchmark Disabilities, EWS: Economically Weaker Section

Apart from qualifications indicated above, any other recognized qualification which is equivalent to the prescribed qualification shall be treated at par with that qualification.

## General information and conditions:-

### 1. Benefits under Council service:

- a. These posts carry usual allowances i.e., Dearness Allowance (DA), House Rent Allowance (HRA), Transport Allowance (TA) etc. as admissible to the central government employees and as made applicable to CSIR. Council employees are also eligible for accommodation of their entitled type as per CSIR allotment rules depending on availability in which case HRA will not be admissible.
- b. In addition to the emoluments indicated against each category of posts, benefits such as applicability of National Pension System 2004, reimbursements of Medical Expenses and Leave Travel Concession etc. are available as per CSIR Rules.
- c. CSIR provides opportunities for career advancement under Assessment Promotion scheme for Scientists.

### 2. Other conditions:

- a. The applicant must be a citizen of India.
- b. All applicants must fulfil the essential requirements of the post and other conditions stipulated in the advertisement as on the last date of receipt of the applications. They are advised to satisfy themselves before applying that they possess the essential qualifications laid down for various posts as on the last date of receipt of the applications. No enquiry asking for advice about eligibility will be entertained.
  - The prescribed essential qualifications are the minimum and the mere possession of the same does not entitle candidates to be called for interview. The duly constituted Screening Committee will adopt its own criteria for short-listing the candidates. The candidate should therefore, mention in the application all the qualifications and experiences in the relevant area over and above the minimum prescribed qualification, supported with documents. Completion of degree will be reckoned from the date of issue of provisional certificate/notification.
- c. The application should be accompanied by self-attested copies of the relevant educational qualification, experience. The prescribed qualifications should have been obtained through recognized Universities / Institutions. etc. Incomplete applications received or not accompanied with the required certificates / documents are liable to be rejected.

- d. In respect of equivalent clause in Essential Qualifications, if a candidate is claiming a particular qualification as equivalent qualification as per the requirement of advertisement, then the candidate is required to produce order/letter in this regard, indicating the Authority (with number and date) under which it has been so treated otherwise the application is liable to be rejected.
- e. The period of experience rendered by a candidate on part time basis, daily wages, visiting/ guest faculty etc. will not be counted while calculating the valid experience for short listing the candidates for interview.
- f. If any document/ certificate furnished is in a language other than Hindi or English, a self-attested transcript of the same is to be submitted.
- g. The date for determining the upper age limit, qualifications and /or experience shall be the closing date prescribed for receipt of applications.
- h. The period of experience in a discipline / area of work, wherever prescribed, shall be counted after the date of acquiring the minimum prescribed educational qualifications.
- i. **Persons with Benchmark Disabilities** (PwBD) fulfilling the eligibility conditions prescribed under GOI instructions are encouraged to apply.
- j. In case a candidate is staying abroad, his/her candidature may be considered *in absentia* by the Selection Committee on his/her written request.
- k. Only outstation candidates called and found eligible for interview will be paid to and fro single second-class rail fare from the actual place of undertaking the journey or from the normal place of their residence whichever is nearer to New Delhi/Delhi Railway Station on production of Rail Tickets/Rail Ticket Numbers or any other proof of journey.
- 1. Any discrepancy found between the information given in application and as evident in original documents will make the candidate ineligible for appearing in interview. Such candidate will not be paid any fare.
- m. The decision of the CSIR-National Physical Laboratory/CSIR in all matters relating to eligibility, acceptance or rejection of applications, mode of selection, conduct of examination/interview will be final and binding on the candidates.
- n. Canvassing in any form and / or bringing any influence political or otherwise will be treated as a disqualification for the post.
- o. NO INTERIM ENQUIRY OR CORRESPONDENCE WILL BE ENTERTAINED.

#### 3. Relaxations:

- a. The upper age limit is relaxable upto 05 years for SC/ST and 03 years for OBC as per Government orders in force only in those cases where the post is reserved for respective categories.
- b. Upper age limit is also relaxable upto five years for the regular employees working in CSIR laboratories / institutes, Government Departments, autonomous bodies and public sector undertakings.
- c. As per GOI provisions, age relaxation for Widows, Divorced women and women Judicially separated from Spouse, the upper age limit is relaxable up to the age of 35 years (upto 40 years for members of Scheduled Castes/Scheduled Tribes and upto 38 years for members belonging to the Other Backward Classes in respect of the posts reserved for them) for Widows, divorced Women and Women Judicially separated from their Husbands who are not remarried. The persons claiming age relaxation under this sub-para would be required to produce following documentary evidence:
  - i) In case of Widow, Death Certificate of her husband together with the Affidavit that she has not remarried since.
  - ii) In case of divorced women and women judicially separated from their husbands, a certified copy of the judgment/decree of the appropriate Court to prove the fact of divorce or the judicial separation, as the case may be, with an Affidavit in respect of divorced women and they have not remarried since.
- d. Age relaxation to Persons with Benchmark Disabilities (PwBD) is permissible as per GOI orders issued from time to time. The persons claiming age relaxation under this sub-para would be required to produce a certificate in prescribed proforma in support of their claims clearly indicating that the degree of physical disability is 40% or more. In any case, the appointment of these candidates will be subject to their being found medically fit in accordance with the standards of medical fitness as prescribed by the Government for each individual post to be filled by Direct Recruitment by Selection.
- e. Any other Age relaxation shall be applicable as per extant GoI/ CSIR Recruitment Rules.
- f. Relaxation in age, over and above the stipulated limit, educational qualification and / or experience may be considered in case of exceptionally meritorious candidates or if sufficient number of candidates possessing the requisite qualification and/ or experience are not available to fill up the posts.
- g. SC/ST/OBC/PwBD/EWS Candidates are required to produce original certificate in the prescribed format signed by the specified authority at the time of interview. The OBC candidate should produce the certificate valid for appointment to post under the Central Government as per latest instructions issued by the DoPT (GOI).

#### 4. How to apply:

a. Separate applications along with appropriate fees are to be made for different posts if a candidate is desirous of applying for more than one post.

- b. Prescribed application form should be downloaded from NPL website <a href="www.nplindia.org">www.nplindia.org</a>. Completed application(s) in all respects, supported by self attested copies of the certificates, mark sheets, testimonials in support of age, educational qualifications, experience, re-prints of publications and caste certificate, if applicable along with one recent passport size self-signed photograph affixed together with endorsement given in the application format from employer in case of candidates engaged in permanent position in Central/State/PSU/Autonomous organizations etc. together with an application fee (if applicable) of Rs. 100/- (Rupees one hundred only) in the form of crossed Demand Draft / Pay Order drawn on any nationalized bank valid for at least 3 months in favour of "Director, National Physical Laboratory" payable at New Delhi is to be sent in an envelope superscribing "APPLICATION FOR THE POST OF SCIENTIST (Post Code No.\_\_\_\_\_)" by post to the "Controller of Administration, CSIR- National Physical Laboratory, Dr. K.S.Krishnan Marg, New Delhi-110012", so as to reach on or before 30.05.2022.
- c. The following details must be filled up on back side of Demand Draft (i) Candidate's Name (ii) Post Code Applied for. The candidates belonging to SC/ST/PwBD/women/CSIR Employees/Abroad Candidates category are exempted from application fee.
- d. In case of universities/institutes awarding CGPA/SGPA/OGPA grades etc., candidates are requested to convert the same into percentage based on the formula as per their university/institute.
- e. The last date of receipt of application in Laboratory is 30.05.2022.
- f. This date will be the same for the candidates belonging to far-flung areas.
- g. Application once made will not be allowed to be withdrawn and fees once paid will not be refunded on any count nor can it be held in reserve for any other recruitment or selection process.
- h. Applications from employees of Government Departments will be considered only if duly endorsed/certified by the employer that the applicant, if selected will be relieved within one month of the receipt of the appointment orders. Vigilance clearance should also be recorded. However, "ADVANCE COPY" of the application may be submitted before the closing date. Applications routed through proper channel should reach CSIR-National Physical Laboratory at the earliest.
- i. Candidates should specifically note that the applications received after the closing date for any reason whatsoever (such as envelopes wrongly addressed, delivered elsewhere, postal delay etc.) will not be entertained by CSIR-National Physical Laboratory.
- j. Incomplete applications (i.e., without photograph, application fee, applicable testimonials and unsigned applications etc.) will not be entertained and will be summarily rejected.

### 5. <u>Following documents must be attached along with application form sent by post:</u>

- a. Demand Draft of Rs. 100/- as application fee wherever applicable in favour of Director, National Physical Laboratory payable at New Delhi. Personal details (i.e. name, contact number & post applied) should be mentioned on the back of the Demand Draft.
- b. Recent passport size color photograph pasted on the form and signed across in full.
- c. Self-Attested photocopy of Date of Birth Certificate.
- d. Self-Attested photocopies of educational qualification certificates.
- e. Self-Attested photocopy of caste certificate, if applicable.
- f. Self-Attested photocopies of experience certificates, if any.
- g. Self-Attested photocopy of certificate EWS/ PwBD/ Women seeking relaxation/ Ex-Serviceman/ others, if applicable.
- h. Synopsis duly filled up by the candidate with signature.
- i. Self-Attested photocopy of other relevant documents, if any.

- Sd - CONTROLLER OF ADMINISTRATION