



# CSIR-NATIONAL METALLURGICAL LABORATORY, JAMSHEDPUR



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**CSIR-National Metallurgical Laboratory (NML)**, a constituent Laboratory of the **Council of Scientific & Industrial Research (CSIR)** is a R&D organization dedicated to metallurgical and materials engineering research. Its domain of operations encompasses raw materials processing, new strategies for metal extraction, metallurgical wastes and lean resources utilization, energy, sustainability and environmental issues of metallurgical processing, innovation and interventions for rural and artisanal materials technology, advanced alloys and materials development, metal forming and formability, corrosion and surface engineering, materials mechanics, materials and process modelling, microstructural engineering, non-destructive evaluation, structural integrity assessment etc. With its modern and extensive infrastructure and the large spectrum of expertise of its Scientific and Technical manpower, CSIR-NML is primarily engaged in industrially significant research pursuits and demonstration of high quality science.

To augment and strengthen its research activities in the areas of advanced alloys development, metal forming and formability, materials mechanics, microstructural engineering, materials modelling, corrosion inhibition, mineral engineering, extractive metallurgy and project engineering, CSIR-NML intends to recruit persons with enthusiasm for quality research and high degree of motivation at Scientific/Technical positions of the Laboratory.

**Online Applications from bonafide Indian nationals are solicited for the following Scientific/Technical/Resident Medical Officer positions for the above requirements. Online Applications must be made Postcode-wise. Separate Online Applications must be made for each Post code.**

Details (Pay Levels, Designation, Essential Minimum Qualifications and Essential Minimum Experience, Upper Age limit and approximate Indicative monthly Gross Salary including HRA and other allowances) of the vacant positions together with information on the overall reservation status are given below.

Total No. of Posts & Reservation Status	Pay Level	Designation	Essential Minimum Qualifications	Essential Minimum Experience	Upper Age Limit	Indicative monthly Gross Salary
12 (6 UR + 3 OBC + 3 SC)	Level-11	Scientist	M Tech	-	32 years	₹85,000/- approx
			Ph.D (Science/Engineering) Submitted	-		
	Level-12	Senior Scientist	Ph.D (Engineering)	-	37 years	₹99,000/- approx
			Ph.D (Science)	2 years in relevant area		
			M Tech	3 years in relevant area		
1 (UR)	Level-10	Resident Medical Officer [Sr. Technical Officer(1)]	MBBS with 55% marks	NIL	35 Years	₹83,000/- approx
1 (OBC) Backlog	Level-07	Technical Officer	B.E./B. Tech or Equivalent with 55% marks		30 Years	₹56,000/- approx

The profiles of candidates being sought by CSIR-NML and a description of the research requirements for the various posts are as follows:

**Total Posts - 14 Posts [Scientists / Sr. Scientist-12 Posts (UR-6, OBC- 3, SC-3) and Resident Medical Officer / Technical Officer (UR-01,OBC-01 Backlog)]**

Post Code	Number of Post and Reservation status	Pay Level and Designation	Essential Qualification	Desired Qualification	Planned Area of Work
PC-01	1 (OBC)	Level 11 Scientist	M Tech (Materials/Metallurgical Engg.)	B. Tech in Materials/Metallurgical Engg. Documented research in Hot corrosion/High temperature corrosion/High temperature oxidation	Corrosion engineering for high temperature applications
		Level 12 Sr. Scientist	M Tech (Materials/Metallurgical Engg.) + 3 years relevant experience		
PC-02	1 (SC)	Level 11 Scientist	M Tech (Materials/Metallurgical Engg.) OR PhD (submitted) in Physics/Chemistry/ Materials/Metallurgical Engg.	<ul style="list-style-type: none"> <li>Documented research in Environmentally assisted cracking/Stress corrosion cracking/Corrosion fatigue/Hydrogen assisted cracking in Metals &amp; Alloys</li> <li>PCM till graduate degree</li> </ul>	Corrosion engineering for metallic structural systems under stress
		Level 12 Sr. Scientist	M.Tech (Materials/Metallurgical Engg.) + 3 years relevant experience OR PhD (Physics/Chemistry/Materials Sc) with 2 years' experience OR Ph.D (Materials/Metallurgical Engg.)		
PC-03	1 (UR)	Level 11 Scientist	M Tech (Materials/Metallurgical/Mechanical Engg.)	<ul style="list-style-type: none"> <li>Documented research In Creep/Creep crack growth/Creep fatigue/Multi-axial fatigue/High strain rate deformation</li> <li>Proficiency in characterization and/or modelling of damage evolved during Creep/Creep crack growth/ Creep fatigue/Multi-axial fatigue/High strain rate deformation</li> </ul>	Experimental materials mechanics at high temperatures and extreme damage conditions
		Level 12 Sr. Scientist	M Tech (Materials/Metallurgical/Mechanical Engg.) + 3 years of relevant experience OR PhD (Materials/Metallurgical/Mechanical Engg.)		
PC-04	1 (UR)	Level 11 Scientist	M Tech (Mechanical/ Electrical/Civil Engg.)	<ul style="list-style-type: none"> <li>B.Tech/BE in Mechanical/Electrical/Civil engineering Experience in Project management/Construction</li> <li>Management/Expertise in modern welding techniques/Process engineering/Finite element method of analysis and designing</li> <li>Relevant Industrial/site experiences</li> </ul>	Project Engineering
		Level 12 Sr. Scientist	M Tech (Mechanical/Electrical/Civil Engg.) + 3 years of relevant experience.		
PC-05	1 (1UR)	Level 11 Scientist	M Tech (Materials/Metallurgical/Chemical Engg.) OR Ph.D (submitted) in Metallurgy/Metallurgy & Material/Chemical Engg.	<ul style="list-style-type: none"> <li>B.Tech (Materials/Metallurgical/Chemical Engg.)</li> <li>Candidate with experience in handling mineral/ metallurgical waste</li> </ul>	Research and technology development on utilization of mineral/metallurgical waste.
		Level 12 Sr. Scientist	M Tech (Materials/Metallurgical/Chemical Engg.) + 3 years relevant experience OR Ph.D (Materials/Metallurgical/Chemical Engg.)		
PC-06	1 (OBC)	Level 11 Scientist	Ph.D (submitted) in Chemistry with specialization in Analytical Chemistry	<ul style="list-style-type: none"> <li>Conventional and instrumental chemical analysis of Ore, Minerals, Metals and other mineral/ metallurgical products</li> </ul>	Research & development on analytical techniques Chemical analysis of Ore, Minerals, Metals and other mineral/metallurgical products using conventional and instrumental techniques
		Level 12 Sr. Scientist	Ph.D in Chemistry with specialization in Analytical Chemistry with 2 years' experience in relevant field		
PC-07	1 (UR)	Level 11 Scientist	Ph.D (submitted) in (Materials/Metallurgical Engg./Materials Science/Physics/Chemistry)	<ul style="list-style-type: none"> <li>In the area of Surface Engineering &amp; Coating Technology</li> <li>Experience in the area of Smart /functional Coatings by chemical, Electro-chemical, PVD/CVD Techniques for tribological/corrosion resistant/ Energy applications.</li> </ul>	Carry out R & D in the area of surface engineering and coating technologies to mitigate the challenges faced by the industries and development of advanced coatings
		Level 12 Sr. Scientist	Ph.D in Materials Science/Physics/Chemistry with 2 years relevant experience OR Ph.D in (Materials/Metallurgical Engg)		
PC-08	1 (UR)	Level 11 Scientist	Ph.D (submitted) in Materials Science/ Chemistry/Physics	Research experience in one of the following: Functional Materials/Energy materials/Biomaterials	



		Level 12 Sr. Scientist	Ph.D in Materials Science/ Chemistry/ Physics with 2 years relevant experience		
PC-09	1 (SC)	Level 11 Scientist	M. Tech in Electronics/ECE/Instrumentation Engg. OR Ph D (submitted) Physics/Electronics/ECE/ Instrumentation Engg.	<ul style="list-style-type: none"> <li>• B. Tech in Electronics &amp; Instrumentation OR</li> <li>• M. Sc in Physics</li> </ul>	R &D in signal & image processing, real time data management, system automation, magnetism & magnetic materials
		Level 12 Sr. Scientist	M. Tech in Electronics/ECE/Instrumentation Engg. with 3 years relevant experience OR Ph D (Physics) with 2 years relevant experience OR Ph.D Electronics/ECE/Instrumentation Engg.		
PC-10	1 (UR)	Level 11 Scientist	M.Tech. in Mineral/Materials/Metallurgical Engg./ Chemical Engineering OR M.Tech. (Geology/Applied Geology) OR Ph.D (submitted) in Mineral/Materials/Metallurgical/ Chemical Engg./Geology/Applied Geology.	<ul style="list-style-type: none"> <li>• B.Tech. in Mineral/Metallurgical/Chemical Engineering or, M.Sc. in Geology/Applied Geology</li> <li>• R &amp; D/Industrial experience in agglomeration/ mineral processing/petrological characterization of ores and coal.</li> <li>• Preferably master's dissertation or other documented research work in the area of Agglomeration/Mineral Processing/ Characterisation of ore/coal</li> </ul>	R & D in agglomeration/mineral and coal processing/ mineral & coal characterisation
		Level 12 Sr. Scientist	M.Tech. in Mineral/Materials/Metallurgical/Chemical Engineering with 3 years R & D/Industrial experience in relevant field or Ph. D (Mineral/Materials/Metallurgical/Chemical Engineering) OR Ph.D (Geology/Applied Geology) with 2 years experience.		
PC-11	1 (SC)	Level 11 Scientist	Ph.D (submitted) in (Materials/Metallurgical Engg./Materials Science/Physics/Chemistry	<ul style="list-style-type: none"> <li>• In the area of Surface Engineering &amp; Coating Technology</li> <li>• Experience in the area of Smart/functional Coatings by chemical, Electro-chemical, PVD/CVD Techniques for tribological/corrosion resistant/ Energy applications.</li> </ul>	Carry out R & D in the area of surface engineering and coating technologies to mitigate the challenges faced by the industries and development of advanced coatings
		Level 12 Sr. Scientist	Ph.D in Materials Science/Physics/Chemistry with 2 years relevant experience OR Ph.D in (Materials/Metallurgical Engg)		
PC-12	1(OBC)	Level 11 Scientist	M Tech (Materials/Metallurgical/Chemical Engg.) OR Ph.D (submitted) in Metallurgy/Metallurgy & Material/Chemical Engg.	<ul style="list-style-type: none"> <li>• B.Tech (Materials/Metallurgical/Chemical Engg.)</li> <li>• Candidate with experience in handling mineral/ metallurgical waste</li> </ul>	Research and technology development on utilization of mineral/metallurgical waste.
		Level 12 Sr. Scientist	M Tech (Materials/Metallurgical/Chemical Engg.) + 3 years relevant experience OR PhD (Materials/Metallurgical/Chemical Engg.)		
PC-13	1(OBC) Backlog vacancy	Level -7 Technical Officer	B.E./B.Tech or equivalent with 55% marks in Metallurgy/Mechanical/Chemical/Materials Science or M.Sc. in Physics with 55% marks.	Experience in R&D Project Management/Techno-Market Feasibility Studies/Patinformatics.	Technology marketing Project Management/ Patent search & Analysis.
PC-14	1 (UR)	Level-10 Resident Medical Officer [(Sr. Technical Officer(1)]	MBBS with 55% marks (Female candidates only)	With diploma or certificate or equivalent one year course in Gynaecology/Paediatrics or related area or 1 year practice/experience in the similar after MBBS	To provide medical and Health care facilities to staff and pensioners of CSIR and their families; to coordinate with Head, Dispensary and other Medical Officer(s) in the functioning of NML Dispensary.

• B.Tech = B.E/B.Tech/BSc (Engineering)

• M.Tech = M.E/M.Tech/MSc (Engineering)/MS

• Selected candidates against Post codes PC-01 to PC-12 will be placed in any of the Level and Designation of the Postcode applied, as per their performance, subject to meeting the minimum eligibility criteria of qualification, age and experience.

**Procedure for Online application:**

1. Only **ONLINE APPLICATIONS** will be accepted. The link for ONLINE APPLICATION will be available on CSIR-NML's website [www.nmlindia.org](http://www.nmlindia.org) from **09:00 Hrs of 06.01.2018 to 17:00 Hrs of the 05.02.2018**.

2. After submission of their ONLINE APPLICATION, Applicants are requested to take a printout.

3. The printout of ONLINE APPLICATION duly signed, along with self-attested copies of certificates of educational qualifications, mark sheets, experience certificates, Re-print of publications, documentary proof in support of date of birth, community/category certificate (OBC/SC/PWD etc.), if applicable, and applicable fee of ₹100.00 in the form of Demand Draft favouring THE DIRECTOR, CSIR-NML, Jamshedpur payable at State Bank of India, NML Branch, Branch Code-03329, Jamshedpur should be sent to The Controller of Administration, CSIR-National Metallurgical Laboratory, Burmamines, Jamshedpur 831007 Jharkhand, so as to reach on or before 20.02.2018. The Advertisement Number and Post Code must be clearly indicated on the top of the envelope containing the application. Candidates belonging to SC/PWD categories, women candidates and departmental candidates (from CSIR Laboratories /Institutes) need not pay any application fee.

4. (i) 'Candidate's Name (ii) Application number and (iii) 'Post Code Applied for' must be filled up on the back side of Demand Draft.

5. 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 of selection process.

**Terms and conditions:**

• Total number of posts may vary. Not all posts need to be filled if suitable candidates are not found.

• One Online Application may refer to one Postcode only. Separate Online Application must be made if a candidate desires to apply for more than one Postcode.

• The posts carry usual allowances such as Dearness Allowance (DA), Transport Allowance, HRA (House Rent Allowance) in the event of unavailability of council accommodation etc. as per entitlement and other allowances under the Central Government Rules as applicable to the CSIR.

• The candidates selected will be governed by the provisions of the New Pension Scheme as introduced by the Govt. of India w.e.f. 01.01.2004 to the extent made applicable by CSIR to its employees.

• Online Applications from candidates working in Government departments, public sectors, autonomous organisations and Government funded research agencies will be considered only if forwarded through proper channel and with no objection certificate that the applicant will be relieved within one month of receipt of the appointment order. However, advance copy of the application may be submitted before the closing date and No Objection Certificate may be submitted at the time of interview. Applications routed through proper channel should reach at the earliest.

• Only those candidates who are eligible and who suit the institutional requirements, short-listed based on screening criteria, will be called for interview. Mere fulfillment of the minimum prescribed qualifications and experience does not entitle a candidate for being called for interview. Candidates should therefore provide in their applications all qualification and experience details, over and above what is prescribed as minimum, supported with documents, if applicable.

• Selected candidates against Post codes PC-01 to PC-12 will be placed in any of the Level and Designation for the Postcode applied, as per their performance, subject to meeting the minimum eligibility criteria of qualification, age and experience.

• The decision of CSIR-NML in all matters relating to the eligibility, acceptance or rejection of applications, mode of selection, conduct of examinations/interviews will be final and