

## ESSENTIAL QUALIFICATION & EXPERIENCE



### CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

The two Applied Research Laboratories viz **Advanced Research School for Technology & Product Simulation (ARSTPS)** concentrates on product development and working in the field of CAD/CAE, Conceptual Design, Reverse Engineering, Product design, Simulation, analysis, Rapid Prototyping and Product validation (NVH, Wear and Fatigue) etc. Similarly **Laboratory for Advanced Research in Polymeric Materials (LARPM)** concentrates on material development in the areas of Polymer Composites & Nano composites, Bio polymers & Bio-based composites, Phase Preparation & interfacial studies, Plastic waste management & Recycling, Polymer electrolytes for fuel/solar cells, batteries & supercapacitors, Water purification & gas separation membranes, Bio-compatible polymers for biosensors, Conductive & piezoelectric polymers, Synthesis & reaction optimisation etc.

#### Junior Scientist:

S.No.	Details	Requirement
1.	<b>Name of the Post</b>	<b>Junior Scientist</b> (Rank: Technical Officer)
2.	Pay Band & Grade Pay	Pay Band: PB-3 Rs.15600-39100 Grade Pay: Rs.5400/-
3.	Age limit for direct recruits	Upto 30 years relaxable in the case of SC / ST / OBC (NCL) and others as per Govt. of India directives.
4.	Minimum qualification	Ph.D. in Engineering / Technology or Science (Polymer / Chemical / Mechanical or equivalent) from a recognized University with first class at the preceding degree with minimum five publications in relevant area in journals of International repute. <b><i>Candidates with Ph.D and Post-doctoral experience in relevant area/discipline will be preferred.</i></b>  OR  Master's Degree in Engineering/ Technology in Polymer / Plastics / Chemical / Mechanical or equivalent from a recognized University with first class. Four years' experience in Research and Development in Industrial

		and Academic Institutions or Science and Technology Organizations with minimum three publications in relevant area in journals of International repute.
4.	Experience (Applied Industrial Research and Consultancy)	<p><b>Desirable experience:</b> It is desirable to have experience in the following areas;</p> <p><b>Material Development:</b></p> <ul style="list-style-type: none"> <li>• Polymer composites &amp; nanocomposites</li> <li>• Biopolymers &amp; Bio-based composites</li> <li>• Phase separation &amp; interfacial studies</li> <li>• Waste management &amp; recycling</li> <li>• Polymer electrolytes for fuel / solar cells, batteries, supercapacitors</li> <li>• Water purification &amp; gas separation membranes</li> <li>• Bio-compatible polymers for biosensors</li> <li>• Conductive &amp; piezoelectric polymers</li> <li>• Synthesis &amp; reaction optimization</li> </ul> <p><b>Product Development:</b></p> <ul style="list-style-type: none"> <li>• Plastic product design and Development</li> <li>• Microfluidics, Additive manufacturing</li> <li>• Polymers in Renewable energy</li> <li>• Product development for medical applications (Orthopedic, Dental etc.)</li> <li>• Polymer Fatigue/fracture failure analysis</li> <li>• Material &amp; Product experiment validation – NVH, fatigue, wear</li> <li>• Soft computing &amp; Computational material modeling</li> <li>• Composite structural and process simulation</li> <li>• Knowledge in CAD/CAM/CAE softwares &amp; Product/Process Engineering and optimization</li> </ul>