



Maulana Azad National Institute of Technology Bhopal
Department of Chemical Engineering

Advertisement for Junior Research Fellow (JRF)

File No. MANIT/CHED/2025/DST-ANRF/PMECRG/JRF-1

Dated 21st July 2025

Applications are invited from motivated and eligible candidates for a Junior Research Fellow (JRF-Frist 2 year) and Senior Research Fellow (SRF- Last one 1Year) position in the research project supported by Department of Science and Technology (DST)- Anusandhan National Research Foundation (ANRF), vide GOI, Ministry of Science and Technology. The details of the project are given below:

Name of the Post	Junior Research Fellow (JRF)
Number of Post	1 (One)
Age Limit	Preferably below 35 Years
Age Relaxation	Upper age is relaxable up to 5 years for SC/ST/OBC/Women and Physically handicapped candidates.
Title of The Project	“Development of High-Output Power Piezo-Triboelectric Hybrid Nanogenerator for Green Hydrogen Production: An IoT-Integrated Process Intensification Approach Using AI/ML”
Principal Investigator	Dr. Akash M Chandran Assistant Professor Department of Chemical Engineering Maulana Azad National Institute of Technology Bhopal
Tenure of Project	Initially for 1 year (extendable up to 3 years based on performance and project needs) <i>(The project duration is three years. During the first and second years, the student will be appointed as a Junior Research Fellow (JRF), and in the third year, the student will be promoted to Senior Research Fellow (SRF). Continuation from the first to the second year, as well as from the second to the third year, will be strictly based on the candidate's annual performance and satisfactory progress.)</i>
Job Description	This project focuses on the design and development of an innovative Piezo-Triboelectric Hybrid Nanogenerator (PTHNG) to enable efficient green hydrogen production. By integrating IoT technologies and AI/ML-driven process intensification, the project aims to create a high-performance energy harvesting system that can power electrolysis processes sustainably. Key aspects include materials engineering, nanocomposite synthesis, hybrid energy harvesting device fabrication, sensor integration, and predictive analytics for system optimization.



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Essential Qualification	<p>M. Tech/M. E/M. S/M. Sc. (by Research) or an equivalent postgraduate degree in Engineering/Technology in disciplines such as Chemical, Materials, Mechanical, Electrical, or Electronics Engineering.</p> <p style="text-align: center;">OR</p> <p>M. Sc., MCA, or an equivalent postgraduate degree in Physics or Chemistry.</p> <p style="text-align: center;">OR</p> <p>Candidates with a B.Tech/B.E. or an Integrated Professional Degree with a minimum CGPA of 7.5 (on a 10-point scale) and a valid qualification in any National Eligibility Test (NET) are also eligible to apply.</p>
Desirable	<ol style="list-style-type: none"> 1. A score/rank in any recognized National Eligibility Test such as GATE, DAE-JEST, UGC-NET, CSIR-JRF, DST-Inspire, or any equivalent fellowship. 2. The candidate needs to have good knowledge of the material characterization methods. 3. Prior research or project experience relevant to the field. 4. Publications in peer-reviewed international journals. 5. Participation and/or paper presentations in national or international conferences.
Salary	<p>As Per DST-ANRF Norms (ANRF/OM/N-01/2024)</p> <p>For JRF</p> <ol style="list-style-type: none"> 1. 37,000.00/- Plus HRA for Candidate having any of the Score/Rank in any recognized National Eligibility Test. 2. 30,000.00/- Plus HRA for Candidate not having any score/rank in any recognized National Eligibility Test. <p>For SRF</p> <ol style="list-style-type: none"> 1. 42,000.00/- Plus HRA for Candidate having any of the Score/Rank in any recognized National Eligibility Test. 2. 33,000.00/- Plus HRA for Candidate not having any score/rank in any recognized National Eligibility Test.
Add on Benefits	The selected candidates are eligible to register for PhD degree at MANIT Bhopal as per the Institute norms.



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Mode of the Interview	<p>After shortlisting, the selected candidates will be informed about the interview through official channels. The interview may be conducted either online or offline mode, and detailed instructions will be communicated to the candidates via email. The tentative date of the interview is scheduled for the first/second week of August 2025 or later.</p>
Submission of the application	<p>Applicants must fill out the application form along with this advertisement, attach a detailed CV, and include self-attested copies of all certificates and documents mentioned in the application. The complete application should be sent via email to akashmc@manit.ac.in.</p> <p><i>*Applicants are strictly advised not to provide any false or misleading information. Submission of incorrect or fabricated details may lead to cancellation of candidature at any stage of the selection process.</i></p>
Terms and Conditions	<ul style="list-style-type: none">• For more details, please contact Project Investigator: Dr. Akash M Chandran on Email: akashmc@manit.ac.in or mobile: 8893356301• The above position is purely temporary and contract basis and co-terminus at any time from the project without any notification.• Candidates appearing in-person should bring the print out of application form with original and self-attested copies of all supporting documents at the time of interview (if offline)• No TA/DA will be paid for their appearing in the interview.• The applicant will be responsible for the authenticity of information other documents and photographs submitted.• The institute reserves the right to accept application at any time and consider candidates of exceptional credentials without applications. Qualification and experience may be relaxed by the institute at any point of time for otherwise exceptional candidates.• Mere, possessing the prescribed qualification does not ensure that the candidate would be called for interview.• Canvassing in any form will disqualify the candidature.



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Application Form

File No. MANIT/CHED/2025/DST-ANRF/PMECRG/JRF-1

Application for the post of:	Insert Your Recent Photograph Here
Name of the Candidate in full (in capital letters):	
Date of Birth:	
Age as on July 21, 2025:	
Category (GN/OBC/SC/ST): (Certificate to be attached if OBC/SC/ST)	
Email:	
Present Address:	
Permanent Address:	
Mobile:	
Nationality:	
Marital Status:	

A. Details of Essential Qualification (Education Qualification)

Name of Exam Passed	Subjects/ Branch/ Specializations	Name of the University/ Board	Month & Year of exam passed	Percentage of Marks secured/ CGPA
Matriculation/10 th				
Higher Secondary/ 12 th				
B. E./B. Tech/B. Sc				
M.E./M. Tech/M. Sc				
Other				

B. Details of the Desirable Qualification:

1. Detail of score/rank in any recognized National Eligibility Test such as GATE, DAE-JEST, UGC-NET, CSIR-JRF, DST-Inspire, or any equivalent fellowship.
2. Prior research or project experience relevant to the field.



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Application Form

3. Publications in peer-reviewed international journals.
 4. Any Patent or Technology Transfer
 5. Participation and/or paper presentations in national or international conferences.
 6. Any other information
- C. Master's Thesis Details (*Not applicable to candidates applying with only a B. Tech degree and a CGPA of 7.5 or above*)
- D. Previous experience: (Furnish details such as name of the post/fellowship, period worked, name of the organization/institution, if any)
- E. Present position: (if any)
1. If you are studying, mention course/subject details:
 2. Details of fellowship/post:
 3. Name of the institution/ organization in which you are studying/working:
- F. Research profile links if any.
- Google Scholar:
- ResearchGate:
- Scopus:

Declaration

I declare that the above information is true and correct to the best of my knowledge and belief.

Date:

Signature of the applicant

Place: