

NATIONAL INSTITUTE OF TECHNOLOGY DELHI

Narela, North West Delhi – 110040

Department of Mechanical Engineering

DATED: 13/08/2026

PROJECT REFERENCE NO: DST/TTI/TDP41/2024

Applications are invited in the prescribed format only for the following assignments in a purely time-bound research project undertaken in this Institute.

Name of the temporary Posts	Research Associate-I / Junior Research Fellow (JRF) & Technical Assistant (TA)
Duration (RA-I/JRF & TA)	Initially for 01 (One) Year, extendable/co-terminus with the duration of the project (up to a maximum of 2 years), subject to satisfactory performance.
Number of Posts	Research Associate-I / JRF – 01 & Technical Assistant – 02
Duration of the Project	2 Years
Name of Project Titled	“Development of Graphene and HfO ₂ doped Nd ₂ Ce ₂ O ₇ as a Novel Thermal Barrier Coating Material for Ultracritical High Temperature Applications”
Name of the Sponsoring Agency	Department of Science & Technology (DST), Ministry of Science & Technology, Government of India (Sanction No. DST/TTI/TDP41/2024 dated 15.06.2026)
Consolidated Fellowship/Salary	Research Associate-I / JRF: Rs. 58,000/- p.m. + 30% HRA Technical Assistant: Rs. 20,000/- p.m. + 30% HRA
Minimum Qualification for Research Associate-I / JRF	Ph.D. in a relevant area (Materials Science / Mechanical Engineering / Metallurgical Engineering / Physics / Chemistry or an allied discipline), preferably with research background/publications in coatings, ceramics, thermal barrier materials, or high-temperature materials.
Minimum Qualification for Technical Assistant	Any Graduate – Bachelor's degree in any discipline from a recognized University/Institute. Candidates with a background in Science/Engineering and prior laboratory/hands-on experimental experience will be preferred.

Key Responsibilities of RA-I/JRF & TA:

RA-I/JRF Responsibilities: Lead the experimental and characterisation work of the project, assist the PI in planning and execution of experiments, synthesis and characterisation of graphene/HfO₂-doped Nd₂Ce₂O₇ coatings, data analysis and interpretation, and preparation of research reports, manuscripts and presentations.

TA Responsibilities: Assist in project planning, sample preparation, operation of laboratory equipment, data collection and data analysis relevant to the project's objectives and help in preparation of research reports and presentations.

Important Condition (applicable to both posts): The selected candidates (RA-I/JRF and TA) may be required to **work onsite** — at the project's experimental/testing facilities of NIT Delhi and/or the collaborating institute (IIT Jodhpur) and other characterisation facilities, as needed — for hands-on experimentation, sample fabrication and material characterisation work. Willingness for onsite work and any associated travel/relocation, as directed by the Principal Investigator, is a mandatory requirement for both positions.

How to apply:

1. The subject of the e-mail should read as “Application for RA-I/JRF Position” or “Application for TA Position”, as applicable. **The last date for receiving this e-mail is 15 days from the date of advertisement.**
2. The e-mail must include a recent photograph, and a scanned/PDF copy of the duly filled Application Format (Annexure-I, see below) with the applicant's signature.
3. The e-mail must include self-attested scanned PDF copies of all supporting documents (Degree certificates, Mark-sheets, experience certificates, and a valid ID proof).
4. NIT Delhi reserves the right to reject any application in case of an incomplete application form or missing supporting documents as listed above.

Interested candidates are required to send their Application Format with complete documents through e-mail to the Principal Investigator – **Dr. Shailesh Mani Pandey** (E-mail id: shaileshpandey@nitdelhi.ac.in). *In case of any missing document or incomplete application form, the application will not be considered.*

Important Dates:

1. Last date of receiving applications by e-mail: 23 October **2026**
2. All shortlisted candidates will be informed by e-mail: 25 October **2026**
3. Interview date and mode (Online/Offline): **will be informed to shortlisted candidates.**

Dr. Shailesh Mani Pandey

PI – Project &

Assistant Professor

Department of Mechanical Engineering

National Institute of Technology Delhi

PROJECT REFERENCE NO: DST/TTI/TDP41/2024

DATED:/...../2026

FORMAT OF APPLICATION FOR RESEARCH ASSOCIATE-I / JRF & TA

Post Applied For: ☐ Research Associate-I / JRF ☐ Technical Assistant (TA)	<i>Affix recent passport size photograph</i>
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Personal Detail:

Candidate Name	
Father's / Mother's Name	
Contact Number	
E-mail ID	
Address (Correspondence)	
Address (Permanent)	
DOB (dd/mm/yyyy)	
Gender (M/F/O)	
Category (Gen/OBC/SC/ST/EWS/PwD)	

Educational Qualification:

Exam Passed	Institute/Board	Year of Passing	% of Marks/CPI	Division
Class X				
Class XII / Polytechnic				
Bachelor's (B.Sc./B.Tech./B.E./BCA/BA) or equivalent				
Master's (M.Sc./M.Tech./MBA/MCA/MA) or equivalent				
Ph.D. (if applicable)				
Any other degree				

Research / Work Experience (if any):

Organisation	Designation/Role	Duration (From – To)	Nature of Work

Publications (Journal/Conference), if any *(applicable primarily for RA-I/JRF applicants):*

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Declaration Regarding Onsite Work:

I confirm that I am aware and willing that the position, if offered to me, may require **onsite work** at the project's experimental/testing facilities (including at the collaborating institute, if required) for hands-on experimentation and material characterisation, as directed by the Principal Investigator.

☐ Yes, I am willing for onsite work ☐ No

I hereby declare that all the information furnished above is true, complete and correct to the best of my knowledge and belief. In the event of any information being found false or incorrect at any stage, my candidature/appointment is liable to be cancelled/terminated without any notice.

Signature of Applicant

Name:

Date:

Place: