



INDIAN INSTITUTE OF TECHNOLOGY PATNA
BIHTA PATNA-801106
RESEARCH & DEVELOPMENT UNIT

ADVERTISEMENT NO: R&D/622/SERB/454

DATED: 21.03.2025

Project No. [DSB-622](#)

Applications are invited in the prescribed format only for the following assignment in a purely time bound research project undertaken in this institute.

1. (a) Name of the temporary assignment : [Research Associate – I \(RA-I\)](#)
(b) Number of Post : [01 \(one\)](#)
(c) Duration of the Post : [1 year \(Extendable upon satisfactory progress\)](#)
2. Name of the temporary research project : [Decoding the Science of Boiling via Bubble Acoustics: Towards Pre-emptive Control of Vapor Explosion in Industrial Applications](#)
3. Name of the sponsoring Agency: [SERB through SwarnaJayanti Fellowship Scheme](#)
4. Consolidated Fellowship/Salary: [Rs 58000 per month + HRA \(as per GoI rules\)](#)

5. Qualifications & Experience:

[Ph.D. \(Mechanical or equivalent\) with prior research experience in the broad area of physical sciences as evidenced through quality journal publications, patents, and technology development. Candidates who have submitted their thesis may also apply. However, if selected, final offer and joining will be subject to award of PhD degree.](#)

or

[M.Tech. \(Mechanical, Thermal, Manufacturing, Mechatronics, or equivalent\) with 3 years' experience in an area relevant to the project needs. The candidate should have demonstrated research interest through quality journal publications, patents, and technology development.](#)

[The upper age limit for applying for the RA-I position shall be as per ANRF/DST norms. Relaxation in experience and age is permissible only for suitable candidates with higher qualification. Candidates with relevant work and/or prior research experience in the fields of Multiphase Flows and Heat Transfer, Surface Science, Computational Fluid Dynamics, Artificial Intelligence and Machine Learning Techniques are encouraged to apply.](#)

6. Description of the ONLINE MODE of the selection process:

[Application procedure:](#)

1. Candidates interested in this position and satisfying the qualification criteria with experience in the relevant field of research should write an email to the project investigator Dr. Rishi Raj, Department of Mechanical Engineering, IIT Patna (Email IDs: rraj@iitp.ac.in and rraj.iitp@gmail.com).
2. The **subject of the email** should read as “[RA-I Position DSB-622](#)”. The last date for receiving this email is **4th April 2025**.
3. The email MUST include the **scanned/pdf copy of duly filled application form** (see attached word document) with applicant's signature.



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4. The email MUST include self-attested scanned **pdf copy of all supporting documents** (degree certificates, mark-sheets, GATE scorecard (if any), and category certificate, if applicable).
5. Copy of all Scopus indexed **journal papers** should be attached with the email.
6. The application should additionally include a **500-word statement of purpose (SOP)**. This document should elaborate on your interest in the broad area of this project and any relevant prior experience/skills which would help you in solving the assigned research problem.
7. **Two recommendations letters** (one must be from the PhD supervisor for candidates with PhD as the highest degree) should be sent to the above stated email addresses by the application deadline date of **4th April 2025**.
8. The application should also include a brief **Academic CV** not exceeding two pages.

This project is a highly specialized, time bound, and target orientated. The qualification and experience given above in this advertisement are at the minimum requirement level and do not guarantee interview call if other candidates with higher qualification and/or experience desirable and commensurate with project objectives are available. Further, IIT Patna reserves the right to not shortlist any candidate in case the application email does not contain complete information backed up by supporting documents as listed above. All candidates who apply via email by **4th April 2025** (deadline) and are shortlisted will be informed regarding the further details by **8th April 2025**. The date of online interview will be announced and informed to the shortlisted candidates in due course of time.

9. **About the Project:** Follow this link to know more about this project:

<https://dst.gov.in/swarnajayanti-fellow-working-develop-technology-prediction-and-control-vapor-explosion-induced>

Applicants may also contact Dr. Rishi Raj and visit www.iitp.ac.in/~rraj for further details on the research undertaken in the Thermal and Fluid Transport Laboratory (TFTL), IITP.

Deputy Registrar

Copy to:

1. Associate Dean, R&D, IIT Patna
2. Advertisement file
3. Project file



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PROJECT CODE: R&D/SP/ME/SERB/2021-22/622

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APPLICATION FORM for Research Associate – I (RA-I) in the Department of Mechanical Engineering, IIT Patna

NAME IN CAPITAL: _____

Date of Birth: _____ [dd/mm/yy]

PHONE NUMBER: _____

GMAIL ID: _____ [required]

ALTERNATE EMAIL ID: _____

POSTAL ADDRESS: _____

_____ **PIN** _____

CASTE CATEGORY: _____ [General/OBC/SC/ST]

GATE/NET/Other Fellowship Examination _____ [choose correct option]

GATE Score: _____ **GATE Marks:** _____

Valid up to: _____ **Scorecard attached with email:** YES/NO

Educational Qualification				
Institute/ Board	Exam Passed	Year of Passing	% of Marks/CPI	Certificate/degree attached
	10 th Class			YES/NO
	12 th Class			YES/NO
	Bachelors (B.Tech/B.E.) or equivalent			YES/NO
	Masters (M.Tech/M.E.) or equivalent			YES/NO
	Ph.D.			YES/NO



Professional Experience		
Organization	Position Held	Nature of Work

Other Achievements:

Declaration:

1. *I certify that all information provided above is correct to the best of my knowledge and backed up by original certificate/degrees. IIT Patna reserves the right to disqualify in case of any misinformation or missing information.*
2. *I understand that it is my responsibility that if shortlisted, I should ensure a reliable internet connection on date of interview to be declared in due course of time.*

Name and Signature of the Applicant

Date:

Place: