



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

**ADVERTISEMENT NO: R&D/820/PMD/324**

**DATED: Dec 14, 2023**

Project No. PMD-820

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 : PhD position funded through project  
(b) Number of Post : 01 (One)  
(c) Duration of the Post : 3 years initially followed by extension subject to satisfactory performance
2. Name of the temporary research project : Portable Microfluidic Device for Onsite Diagnosis of Traumatic Brain Injuries
3. Name of the sponsoring Agency : Indian Council of Medical Research (ICMR)
4. Consolidated Fellowship/Salary : 31000 + HRA (as per GoI rules) for the first two years followed by 35000 + HRA (as per GoI rules)
5. Minimum Eligibility for Qualifications & Experience:
  - a) For candidates with M.Tech./ME/MS as qualifying degree in an Engineering/Technology in Mechanical, Electrical, Electronics, Mechatronics, Instrumentation and control, Medical and Biomedical or, relevant branches with a minimum CPI of 6.5 or, 60% of marks, and GATE qualifications not older than 5 years from the last date of submission of application/NET qualification.
  - b) For candidates with Master's degree in science in a relevant area with a minimum CPI of 7.5 or, 70% of marks
  - c) For candidates with B. Tech./BE as a qualifying degree in Engineering/Technology in Mechanical, Electrical, Electronics, Mechatronics, Instrumentation, Biomedical or, relevant branches, 70% marks or 7.5 CPI in B.Tech/BE from institutes other than IITs/IISc with valid GATE score and 8.0 CPI in B.Tech./BE from IITS and IISc.
  - d) The age should not exceed 28 years for a candidate with BE/B.Tech/M.Sc. degree as the highest qualification and 32 years for a candidate with ME/M.Tech/MS degree as the highest qualification.
  - e) Relaxations for SC/ST/OBC/women/PD will be given as per the GOI norms.

Candidates with relevant work and/or prior research experience in the fields of Microfluidics, Bio-Microfluidics, Biomedical Engineering and Sciences, or, Biotechnology are encouraged to apply.

**6. Description of the OFFLINE 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



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Dr. Abhishek Raj, Department of Mechanical Engineering, IIT Patna (Email IDs: [araj@iitp.ac.in](mailto:araj@iitp.ac.in) and [araj367iitp@gmail.com](mailto:araj367iitp@gmail.com)).

2. The **subject of the email** should read as “*JRF Position PMD-820*”. The last date for receiving this email is **25<sup>th</sup> Dec2023**.
3. The email **MUST** include the **scanned/pdf copy of the duly filled application form** (see attached Word document) with the applicant’s signature.
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 (if any) 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. The application should also include a brief **Academic CV** not exceeding two pages.

This project is 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 an interview call if other candidates with higher qualifications 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 **25<sup>th</sup> Dec 2023**(deadline) and are shortlisted will be informed regarding further details including date of written test and Interview by **26<sup>th</sup> Dec2023**. The tentative date of the written test and interview IN OFFLINE mode at IIT Patna will be during **28<sup>th</sup> Dec to 29<sup>th</sup> Dec**. The selected candidate would be offered to join the PhD program immediately at IIT Patna by registering/enrolling during first week of January 2024.

8. **About the Project:** The project aims the development of a microfluidic device for rapid onsite detection of traumatic brain injuries. The developed device would benefit the human healthcare system by providing a rapid detection tool so that medications can be started early and the lives of patients with brain injury can be saved. Applicants may also contact **Dr. Abhishek Raj** for further details on the research project.

**Deputy Registrar/ 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/PMD/2023-24/820**

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**FORMAT OF APPLICATION FOR PhD POSITION FUNDED THROUGH PROJECT**

<b>Name &amp; Address</b> <b>Including email id and Phone no.</b> <b>(for Correspondence)</b>	<b>Category</b> (GEN/OBC/SC/S T/PD)	<b>DOB</b> dd/ mm/yy	<b>Professional Exam.</b> <b>(GATE/CSIR-NET, etc) &amp;</b> <b>Validity</b>
<b>NAME IN CAPITAL</b> Address:    Phone: Email:			
<b>Educational Qualification</b>			
Institute/ Board	Exam Passed	Year of Passing	% of Marks/CPI
	10 <sup>th</sup> Class		
	12 <sup>th</sup> Class		
	Bachelors (B.Sc/B.Tech/B.E./BCA) or equivalent		
	Masters (M.Sc/M.Tech/M.E/MCA/ MA) or equivalent		

Qualifying degree	Degree/ major/Specialization
(B.Sc/B.Tech/B.E./BCA)	
(M.Sc/M.Tech/M.E/MA/MCA)	
Others	

Signature of applicant

Date:

Place: