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

ADVERTISEMENT NO: R&D/1189/DSI/443   **DATED: 14.01 2024**

Project No. DSI-1189

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   : Junior Research Fellow (JRF)

   (b) Number of Post   : 01 (One)

   (c) Duration of the Post   : 1 year initially followed by extension subject to Satisfactory performance

2. Name of the temporary research project   : Development of a two way Fluid Structure Interaction Coupling tool with application to AMCA Internal Weapon Bay (IWB) cavity acoustics with full aircraft model

3. Name of the sponsoring Agency   : Aeronautics Research & Development Board (ARDB)

4. Consolidated Fellowship/Salary   : 37000 + HRA (as per GoI rules) for the first two years

5. Minimum Eligibility for Qualifications & Experience:

   a) For candidates with M.Tech./ME/MS as qualifying degree in an Engineering/Technologyin Mechanical, Aerospace,Computer Science and Engineering, Mechatronics, or,relatedbranches with a minimum CPI of 6.5 or, 60% of marks, and GATE/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, and GATE/NET qualification.

   c) For candidates with B. Tech./BE as a qualifying degree in Engineering/Technology in Mechanical,Aerospace,Computer Science and Engineering, Mechatronics or, relevant and equivalent 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 aerospace, code development, having good applied knowledge of programming languages like C/C++ 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 investigators Dr. Ashwani Assam and Dr Sunil Kumar Singh, Department of Mechanical Engineering, IIT Patna (Email IDs: aashwani@iitp.ac.in , ashwaniassam@gmail.com and sunils@iitp.ac.in).

2. The **subject of the email** should read as "*JRF Position* DSI-1189". The last date for receiving this email is **31stJanuary2025**.

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.

Note: 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 **31stJanuary 2025** (deadline) and are shortlisted will be informed regarding the further details by 3rd February 2025. The date of online interview will be announced and informed to the shortlisted candidates in due course of time.

8. **About the Project:**The project aims to develop an interface, leveraging either in-house developed or open-source libraries, to facilitate the transfer of load and displacement data between two commercial fluid and structural solvers. This methodology will be employed to address aeroelastic and aeroacoustic challenges involving fluid-structure interactions.

The ultimate goal is to simulate the Internal Weapon Bay (IWB) cavity acoustics of the Advanced Medium Combat Aircraft (AMCA) using a full aircraft model.

As part of the project, the applicant will be required to travel and spend time at the Aeronautical Development Agency (ADA) in Bengaluru during the later stages of the project for code development activities. For further details on the research project, applicants are encouraged to contact **Dr. Ashwani Assam (aashwani@iitp.ac.in)** or **Dr. Sunil Kumar Singh (sunils@iitp.ac.in).**

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/DSI/2024-25/1189

ADVERTISEMENT NO: R&D/1189/DSI/443   **DATED: 14.01 2024**

FORMAT OF APPLICATION FOR Junior Research Fellow (JRF) in the Department of Mechanical Engineering at IIT Patna

Name & Address Including email id and Phone no. (for Correspondence)	Category (GEN/OBC/SC/ST/PD)	DOB dd/ mm/yy	Professional Exam. (GATE/CSIR-NET, etc) & Validity
NAME IN CAPITAL Address: Phone: Email:			

Educational Qualification

Institute/ Board	Exam Passed	Year of Passing	% of Marks/CPI
	10th Class		
	12th Class		
	Bachelors (B.Tech/B.E.) or equivalent		
	Masters (M.Tech/M.E) or equivalent		
	Ph.D.		

Qualifying degree	Degree/ major/Specialization
(B.Tech/B.E.)	
(M.Tech/M.E)	
Others	

Include the list of attachments (as per advertisement) submitted along with this form below:

1.
2.
3.
4.
5.

Declaration: I hereby certify that all information provided herein is accurate and supported by original documents. I acknowledge that I have uploaded all required documents including the SOP as specified in the advertisement form. In the event of any missing or incorrect information, I acknowledge that IIT Patna reserves the right to exclude my application from further consideration without any notification. It is my responsibility to ensure the completeness and accuracy of the information provided.

Signature of applicant

Date:

Place: