

DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Adv. No. IITR/Rect.Cell-I/11359/E-5001 (216)/2144

Dated: 15.10.2026

ADVERTISEMENT FOR POST DOCTORAL FELLOWSHIP POSITION

The Department of Mechanical & Industrial Engineering at the Indian Institute of Technology Roorkee invites applications from outstanding and enthusiastic researchers for the following position.

Position	Post-doctoral Fellow (PDF)	Number of position(s)	01
Project Title	High-fidelity Numerical Simulations and Model Development for Flash-boiling Liquid Ammonia Injection in Scramjet Engines		
Supervisor	Dr.-Ing. Avijit Saha, Assistant Professor, Department of Mechanical and Industrial Engineering, IIT Roorkee		
Duration of Fellowship	Full Time, Two Years		
Consolidated Fellowship (per month)	1 st Year	2 nd Year	
	Rs. 80,000	Rs. 80,000	
Contingency (per annum)	Rs. 50,000		

SKILLS/QUALIFICATIONS REQUIRED

- Ph.D. in Mechanical Engineering/Aerospace Engineering/Applied Mechanics/Allied disciplines in Engineering and Sciences with a research background in the aforementioned areas with a good publication record.
- Experience in computational fluid dynamics, particularly in the development, implementation, or validation of numerical models and simulation tools, is desirable.
- Proficiency in scientific programming using Python, C++, MATLAB, or comparable programming languages is preferred.
- Must demonstrate the ability to conduct independent research, solve complex scientific problems, and work effectively in a collaborative research environment.
- Motivation to publish research findings in high-quality, peer-reviewed international journals and present their work at international conferences.

SALIENT POINTS

- Apart from research activities under the above project, the candidate will be entrusted with other academic responsibilities, including mentoring UG/PG students, participating in research discussions, and other activities as deemed fit by the supervisor.
- The candidate is expected to join the department as soon as the offer letter is released.
- Post-doctoral Fellows will be registered as students and may avail facilities of the library, computer center, available hospital facilities etc. They will be entitled to 2.5 days of leave per completed calendar month. No carry forward for leave will be allowed beyond a calendar year. PDF positions are purely temporary.

WHAT YOU WILL GAIN?

This position offers the opportunity to contribute to the development of a new research group, take ownership of research ideas, and build expertise in high-fidelity modelling of fuel injection processes for scramjet engines. Specifically, you will:

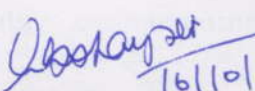
- Work closely with the principal investigator in a growing research group, with opportunities to contribute to shaping its research direction and computational capabilities.
- Develop expertise in advanced computational modelling, fluid mechanics, and propulsion-related processes relevant to high-speed aerospace applications.
- Take initiative in developing numerical models, pursuing independent research ideas, and publishing findings in peer-reviewed scientific journals.
- Contribute to collaborative research activities and build professional networks through scientific publications, conferences, and research interactions.

APPLICATION PROCEDURE

Interested candidates are invited to apply using the following link:

https://docs.google.com/forms/d/e/1FAIpQLSe8RW-w1n6OHH39QukoFdJhTma3NeryUfc6_qmKm0rh4andlQ/viewform?usp=publish-editor

The application deadline is **Nov. 24, 2026**. *Applications received after this date will not be considered*


16/10/26
Head of the Department


15/10/26
Mentor