



INDIAN INSTITUTE OF TECHNOLOGY ROPAR

ADVERTISEMENT

Postdoctoral Fellow (Research Associate-I) **(Project No. ANRF/ARG/2025/010909/ENS)**

Applications are invited from highly motivated and eligible candidates for ARG Project funded by ANRF as per the following details.

Project title: Investigations into moisture response and aerodynamics of small insects

Project description: Flight of small can provide key inputs for the development of small unmanned aerial vehicles (UAV) for multiple applications. Any UAVs based on such flapping wing insect flight should ideally be able to handle a wide array of atmospheric conditions. Specifically, exposure to atmospheric moisture in the form of fog or dew is a significant challenge that these insects, as well as UAVs inspired from their flight, have to overcome due to their inherently low mass. This project aims to conduct a systematic study into the response of flying insects to atmospheric moisture. It involves experimental investigations such as surface characterization, high speed and microscopic imaging for studying interaction between drops and surfaces, observations of insect flight aerodynamics, data analysis, complemented with numerical investigations. The selected candidates will get a chance to work with a highly collaborative research team on an interdisciplinary research problem using state of the art lab facilities.

Project Team: Dr. Chander Shekhar Sharma (PI), Dr. Navaneeth K Marath, Dr. Manish Agrawal

Open Position:

A) Postdoctoral Fellow (Research Associate-I) (1)

Duration: 3 years or the project completion date, whichever is earlier. The candidate will be appointed initially for one year and appointment will be renewed everywhere based on the performance.

Emoluments: Rs. 58000/- per month

Essential Qualifications:

- i. Doctorate in Mechanical Engineering / Aerospace Engineering/ Physics from a recognized institute
- ii. Master's degree in Mechanical Engineering / Aerospace Engineering / Chemical Engineering/ Physics from a recognized institute and with a minimum CGPA of 6.5 on a 10.0 point scale (or 65% marks)
- iii. Bachelor's degree in Mechanical Engineering / Aerospace Engineering / Chemical Engineering/ Physics from a recognized institute and with a minimum CGPA of 6.5 on a 10.0 point scale (or 65% marks)

Desirable Qualities:

The candidate should have an extensive knowledge of Fluid Mechanics fundamentals. A research background in topics such as flapping wing aerodynamics, insect flight, surface wettability, micro and nanofabrication, numerical and experimental techniques in fluid mechanics will be preferable. The candidate should have a strong research record with research publications in major journals in these fields.

How to Apply?

Eligible applicants should fill out the google form: <https://forms.gle/WLjZ6GeEYLUwf5936>

Closing Date: 25th October 2026