SRIC/06

INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE
Department of Civil Engineering

Dated: 06-04-2026

ADVERTISEMENT TO FILL UP PROJECT POSITIONS*

Applications are invited from Indian nationals only for project position(s) as per the details given below for the ~~consultancy~~/research project(s) under the Principal investigator (**Name: Dr. Sanhita Das**), Dept. of Civil Engineering, Indian Institute of Technology, Roorkee.

1. **Title of project**: An Integrated Framework for Conflict Risk and Workload Assessment of Commercial Bus Drivers Using Physiological and Naturalistic Driving Data

2. **Sponsor of the project**: Anusandhan National Research Foundation (ANRF), New Delhi

3. **Project position(s) and number**: Junior Research Fellow, One (1)

   Qualifications: M.Tech./M.E./M.Sc. in Computer Science and Engineering, Civil Engineering, Electrical engineering, Electronics and Communication engineering, Data Science, Machine Learning and Computing, Mathematics or allied fields with at least 60% marks with valid GATE/NET (UGC, CSIR, etc.) qualified.

   OR

   B.Tech./B.E./B.Sc. in Computer Science and Engineering, Civil Engineering, Electrical engineering, Electronics and Communication engineering, Data Science, Mathematics or allied fields with at least 70% marks with valid GATE/NET (UGC, CSIR, etc.) qualified.

4. **Emoluments**: Rs. 37,000 per month + HRA (as per Institute Guidelines)

5. **Duration**: Initially for 1 year, with a possible extension of 2 additional years or until project completion, whichever is earlier.

6. **Job description**: This project aims to develop an AI-driven framework to assess conflict risk and workload among long-haul commercial bus drivers by integrating physiological signals, driving behavior, traffic conditions, and environmental factors. It involves survey-based workload assessment, naturalistic driving data collection using instrumented buses, and predictive modelling for proactive road safety improvement.

   Responsibilities:
   - Assist in literature review and research planning related to driver behaviour, road safety, mental workload, and AI-based risk assessment.
   - Support the design and administration of questionnaire surveys involving commercial bus drivers and other stakeholders.
   - Participate in field data collection using instrumented buses across intercity routes.
   - Contribute to data analysis for driver workload classification, driving behaviour assessment, and surrogate safety/conflict analysis.
   - Assist in development and validation of AI/ML and statistical models for conflict-risk prediction.
   - Support scenario analysis, sensitivity analysis, and validation studies.
   - Contribute to preparation of technical reports, research papers, presentations, and project documentation.
   - Coordinate with transport agencies, collaborating institutions and relevant stakeholders as required.

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Desired Skills:

- Familiarity with programming tools such as Python, R, MATLAB, or similar platforms.
- Experience in data processing, sensor data analysis, computer vision, wearable data, or traffic data analysis will be preferred.
- Willingness to travel for fieldwork and coordinate with external agencies.
- Excellent interpersonal and communications skills (both oral and written).

1. Candidates before appearing for the interview shall ensure that they are eligible for the position they intend to apply.
2. Candidates desiring to appear for the Interview should submit their applications, along with the following documents, through the link https://forms.gle/54BDncv11ZKvLVFk7 or scan here.
3.
   - Latest and detailed CV including chronological discipline of degree/certificates obtained.
   - Experience including research, industrial field and others.
   - Scanned attested copies of degree/certificate and experience certificate.
   - GATE certificate
4. Candidate shall bring along with them the original degree(s)/certificate(s) and experience certificate(s) at the time of interview for verification.
5. Preference will be given to SC/ST candidates on equal qualifications and experience.
6. Please note that no TA/DA is admissible for attending the interview.

The last date for application to be submitted through the google form is 19-04-2026.

The schedule of the interview (ONLINE) will be intimated through email to the shortlisted candidates.

Sanhita Das

(Sanhita Das)
Name and signature
of Principal Investigator

Tel:+91-1332-284979

Email: sanhita.das@ce.iitr.ac.in

*To be uploaded on IIT Roorkee website and copy may be sent to appropriate addresses by PI for wider circulation.

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Indian Institute of Technology Roorkee
Roorkee-247 667 (INDIA)

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