

**INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE**  
**(Department of Civil Engineering)**

Dated: 21.03.2026

**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. Saurabh Vijay**), Dept./Centre **Department of Civil Engineering** Indian Institute of Technology, Roorkee.

1. Title of project: **Seasonal ice velocity and grounding line fluctuations in Antarctica using NISAR data**
2. Sponsor of the project: **ISRO**
3. Project position(s) and number: **Research Associate; 1 Position**
4. Qualifications: **B.E./B.Tech in any discipline and ME/MS/M.Tech in Geomatics/Geospatial/Geoinformatics/Remote Sensing or similar discipline.** Candidates with experience in **Satellite remote sensing, Photogrammetry, SAR data processing and Python or similar programming language** will be given preference. **PhD** in the similar topics will be given preference. Candidates with valid **GATE Score Card** will be given preference.
5. Emoluments: **INR 63250/- (all inclusive)**
6. Duration: **3 years**
7. Job description: The present research project aims to improve understanding of Antarctic Ice Sheet dynamics, where ice loss occurs through glacier thinning, frontal retreat, and acceleration of outlet glaciers, contributing to global sea level rise. Ice shelves stabilize upstream glaciers, and their weakening can lead to increased glacier velocity, thinning, and ice discharge to the ocean. The project will use data from the **recently launched NASA-ISRO Synthetic Aperture Radar mission (NISAR)**, a dual-frequency S/L-band radar system with a 12-day repeat cycle. The research focuses on developing SAR-based methods to estimate ice velocity, grounding line positions, and melt regimes across Antarctic ice shelves, including the Amery Ice Shelf. Seasonal time series of ice velocity will be generated using NISAR SAR offset tracking products. The project will also map grounding line positions and analyze melt onset and duration using radar observations. The work is conducted in collaboration with the **Space Applications Centre (ISRO)** and the **National Centre for Polar and Ocean Research (NCPOR), Goa**. The position at IIT Roorkee will focus on SAR data processing, algorithm development, and programming workflows for deriving glaciological variables from NISAR observations. The outcomes will support development of operational cryosphere science products for Antarctica under the NISAR Utilization Program and will be communicated through international scientific publications and conferences.

   
**S.Paw**  
**23/03/26**

8. **Other information:**

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 with the following documents as a single PDF to the office of Principal Investigator through email
  - Cover letter highlighting your academic and research background
  - Curriculum Vitae
3. Candidate shall bring along with them the original degree(s)/certificate(s) and experience certificate(s) at the time of interview for verification.
4. Preference will be given to SC/ST candidates on equal qualifications and experience.
5. Please note that no TA/DA is admissible for attending the interview.

The last date to submit the application by email to [saurabh.vijay@ce.iitr.ac.in](mailto:saurabh.vijay@ce.iitr.ac.in) is **April 5, 2026 by 5 PM**. No other means of submission is accepted. Also mention "Application for ISRO sponsored project" in the subject line of the email



Dr. Saurabh Vijay

**Tel: 01332-28-4966**

**Name and signature of Principal Investigator**

**Email: [saurabh.vijay@ce.iitr.ac.in](mailto:saurabh.vijay@ce.iitr.ac.in)**

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

**APPROVED**

  
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