राष्ट्रीय प्रौद्योगिकी संस्थान गोवा
NATIONAL INSTITUTE OF TECHNOLOGY GOA
कुंकोलिम, जिला दक्षिण गोवा, गोवा, पिन-403703
Cuncolim, South Goa District, Goa, Pin–403703

Advt. No: NITG/NISAR/Manpower/2026/OW/01 **Dated: 28/04/2026**

Advertisement for the Position of Junior Research Fellow (JRF) under NISAR Utilization Programme of ISRO, GOI

Applications are invited from the interested candidates for the post of Junior Research Fellow (JRF) to work under the sanctioned project entitled **"Resource Optimised Detection of Dark vessels and prediction of vessel navigation direction using polarimetric SAR data based on Robust CFAR algorithm and Lightweight Deep learning Models"** (NISAR-UP-CO-OCE08), NISAR Utilization Programme of ISRO, GOI.

Total duration of the project: 5 Years*

Project Number	Project Title	Name of Post (Nos)	Investigator	Department
NISAR-UP-CO-OCE08	**Resource Optimised Detection of Dark vessels and prediction of vessel navigation direction using polarimetric SAR data based on Robust CFAR algorithm and Lightweight Deep learning Models**	JRF-Junior Research Fellow (01)*	Dr. Damodar Reddy Edla	CSE

***The position will be offered for 1 year initially, which can be further extended based on the performance review. In case of JRF, after the completion of 2 years, the position will be converted into SRF based on the performance review. The applicant may get a chance to enrol into PhD program at NIT Goa, as per the Institute norms.

Essential Qualification and Monthly Emolument

- B.Tech/B.E./M.Tech./M.E./equivalent in the relevant discipline with NET/GATE and at least 6.5 CGPA or 60 percent marks in aggregate from a recognized technical institute or university in a full-time program.
- Per month salary will be Rs. 37000 + 20% HRA with other allowances as per the Institute norms.

Project Details, Objectives and Desired Skills

Project Number	Objectives of the Project	Desired Skills
NISAR-UP-CO-OCE08	• Develop a model for detection of Ship and Dark Vessels using Custom NISAR data • To classify the type of ships based on features extracted • Prediction of direction and navigation of detected vessels	• Synthetic Aperture Radar (SAR) & Polarimetric SAR fundamentals (Synthetic Aperture Radar) • SAR data processing & geospatial tools (e.g., handling NISAR data) • Signal processing & detection algorithms (CFAR and variants)

		• Statistical modeling for clutter and noise • Python programming (NumPy, SciPy, OpenCV, etc.) • Image processing & computer vision techniques • Machine learning fundamentals (classification, feature engineering) • Deep learning with lightweight models (CNNs, YOLO, MobileNet) • Feature extraction for ship classification (shape, texture, polarimetric features) • Tracking & trajectory/direction prediction (e.g., Kalman filtering) etc.

Important Instructions:

1. Candidate possessing the requisite qualification and experience should apply in the attached format along with their updated CV latest. The applicant will be responsible for the authenticity of information, other documents and photographs submitted.
2. Mere, possessing the prescribed qualification does not ensure that the candidate would be called for Interview. The Candidates will be shortlisted on the basis of merit and need of the project.
3. Applicants in employment (private, government or any other organization) are required to submit a "No Objection Certificate" from the employer at the time of interview.
4. Application form (as given below) giving all the details along with the self-attested copies of certificates, supporting documents and experience in soft copy should be submitted at Google Form link https://forms.gle/G1FuDUrgaHbTcMMG7 by 15 **June 2026 (Extended).**
5. The Shortlisted Candidates will be informed by e-mail (apart from NIT Goa website "www.nitgoa.ac.in") along with the date and time of the written test and/or interview. No other letter in this regards will be sent to the correspondence address.
6. Shortlisted candidates have to present themselves for the written test and/or interview with the updated CV, application form, original and attested photocopies of mark sheets/certificates in support of their academic qualifications.
7. No TA/DA shall be paid to candidates for attending the Interview and/or joining the position.
8. The appointment is for a time bound project and the candidate is required to work dedicatedly for the successful completion of the project. Selected candidate has to join immediately.

9. Incomplete application forms and forms received after due date will be summarily rejected.
10. All the Terms and Conditions for this recruitment will be as per guidelines of ISRO, Govt. of India.

For any query, please contact at below address:

Dr. Damodar Reddy Edla
Department of CSE,
National Institute of Technology Goa
Cuncolim, Salcete- 403703, Goa, India
Phone: 9765127163, 9373151004
E Mail: dr.reddy@nitgoa.ac.in
Website: http://www.nitgoa.ac.in

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Application for the Position of Junior Research Fellow (JRF) under NISAR Utilization Programme of ISRO, GOI

Title of Project: Resource Optimised Detection of Dark vessels and prediction of vessel navigation direction using polarimetric SAR data based on Robust CFAR algorithm and Lightweight Deep learning Models

Paste here a recent passport size photograph

1. Post Applied for: **Junior Research Fellow**
2. Project No: NISAR-UP-CO-OCE08
3. Name of the Candidate (BLOCK LETTER):_____
4. Father's Name (BLOCK LETTER): _____
5. Mother's Name (BLOCK LETTER): _____
6. (a) Date of Birth: (DD/MM/YYYY)_____

   (b) Gender (Male/Female/Other):_____

   (c) Marital Status (Married/Single):_____

   (d) Category (SC/ST/OBC/PWD/GEN):_____
7. Previous Research experience: (use additional sheet if required)_____
8. Publication(s), if any: (use additional sheet if required)_____
9. GATE/ NET: Score:_____Rank:_ _____Specialization: _____Year: _____
10. Academic Qualification: (Starting from Standard 10 or equivalent Examination)

Name of Exam Passed	Name of the School/College/Institute/ University	Year of Passing	Discipline/ Specialization	Percentage of Marks/ CGPA

10. (a) Address for Communication: (BLOCK LETTER)

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(b) Contact No. (Mobile):

(c) E-mail ID :

11. Contact Details of two referees:

	Referee I	Referee II
Name:		
Designation:		
Organization:		
Office Address:		
Office Phone Number:		
Email ID:		

12. Areas of Expertise:

13. Experience details:

I do here by declare that the information furnished in this application is true to the best of my knowledge and belief. If selected, I promise to abide by the rules and regulations of the Institute.

Date:

Place: Signature of the candidate