



Indian Institute of Technology (ISM) Dhanbad
Office of the Dean (Research & Development)

Sanction No and Date: NGP/GS/Deeraj/IIT-D/JH/2023(G) Dated: 09.06.2025	IIT (ISM) Project No. SRDP 1205 G	Date: 18/10/2025
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Junior Research Fellow position under the Ministry of Science & Technology (DST)

Applications are invited under the sponsored project. The details of the project are as follows:

Position	Junior Research Fellow (JRF)
Number of Position (s)	01 (one)
Title of The Project	Development of Indigenous Synthetic Aperture Radar Data Analytics Engine Powered by Big Data and Deep Learning
Principal Investigator	Prof. Dheeraj Kumar
Tenure of Project & Duration of Position	36 months
Job Description	• Conduct research and development on Synthetic Aperture Radar (SAR) data analytics, focusing on big data frameworks and deep learning methodologies. • Develop algorithms and workflows for SAR data preprocessing, feature extraction, classification, and change detection. • Implement scalable solutions for handling multi-terabyte geospatial datasets using HPC/Cloud-based platforms. • Collaborate with the project team for integration of SAR analytics into the indigenous engine. • Prepare technical reports, research publications, and assist in drafting patents related to project outcomes. • Support Principal Investigator in project deliverables, presentations, and demonstrations
Essential Qualification	• M.Tech in Remote Sensing, Geomatics, Geoinformatics, Computer Science, Electronics & Communication Engineering, Data Science, Mathematics/Mathematics & Computing/Statistics or equivalent discipline with a strong background in image/signal processing and machine learning. • Candidate should be GATE/NET qualified.
Desirable Qualification	• Experience in Synthetic Aperture Radar (SAR) data processing (e.g., Sentinel-1, RISAT, or airborne SAR). • Knowledge of deep learning frameworks (TensorFlow, PyTorch, etc.) and AI/ML model development. • Exposure to big data technologies (Hadoop, Spark, Dask) and high-performance computing environments. • Familiarity with geospatial software/libraries (GDAL, QGIS, SNAP, Google Earth Engine, Gamma SAR and SAR Interferometry). • Strong programming skills in Python, C++/Java, or MATLAB.

	• Good communication and technical writing skills for reports and research papers
Age and Relaxation (if any)	Preferably below 32 Years, on the last date of submission of the application (Age relaxation for SC / ST / PH / OBC or any other as per GOI & DST rules)
Fellowship /Salary	₹ 37,000/- (37,000+18% HRA) (Per month) for 2 year & ₹ 42,000/- (42,000+18% HRA) (Per month) for 1 year.
Last Date	Interested candidates are requested to send an application with detailed Bio-Data and a soft copy of educational qualifications and proof of domain knowledge/ experience with age proof as a single PDF to the Principal Investigator by Email: msalam@iitism.ac.in on or before 15.11.2025

Shortlisted candidates will be informed the date of the interview through email. Mere possession of a minimum qualification does not guarantee an invitation to the interview. Candidates will be short-listed based on their merit and as per the requirements of the project. All candidates should make their own arrangements for their stay at Dhanbad, if required. No TA/DA will be paid to attend the interview. A candidate with M.Tech Qualification may get the chance to pursue the PhD funded from this project at IIT(ISM) Dhanbad, (after satisfying the institute admission criteria). *Position will be on a purely contractual basis and co-terminated with the project timeline. The interview will be held in online/offline mode. Contact details: msalam@iitism.ac.in

(Signature of PI)