

भारत सरकार Government of India

अंतरिक्ष विभाग Department of Space भारतीय अंतरिक्ष अनुसन्धान संगठन Indian Space Research Organisation भारतीय सुदूर संवेदन संस्थान, देहरादून Indian Institute of Remote Sensing, Dehradun



# भर्ती सूचना / RECRUITMENT NOTICE

#### Advt. No.: IIRS/P&GA/GA/RECTT/JRF/34

#### Date: 05/10/2021

Indian Institute of Remote Sensing (IIRS), a Unit of Indian Space Research Organisation (ISRO), is a premier institute for capacity building and research in the field of Remote Sensing (RS) and Geoinformatics. The Institute has a multi-disciplinary and problem oriented research agenda focusing on developing land-ocean-atmosphere applications and understanding Earth's surface and subsurface processes using primarily the space-based technologies. The research programmes are intricately linked to overall goal of ISRO towards operationalization of space-based services for national development.

2. Young and motivated candidates (Indian citizens only) are invited for Walk-in Interview for Sixteen (16) temporary positions of Junior Research Fellow (JRF) under the following research projects:

S. No. 1	
POST CODE	JRF 66
No. of Position(s)	01 (One)
Project Name	Alpine Biodiversity Characterization and Information System-Network (NMHS).
Essential Qualifications	M.Sc. in Forestry/ Ecology/ Botany/ Environmental Science/ Wildlife Science/ Biodiversity & Conservation. (OR)
(Also refer Para 3)	M.Sc. / M.Tech. in Remote Sensing & GIS or equivalent subject with dissertation in Forestry / Ecology.
Desirable Qualification	Knowledge of plant taxonomy and application of RS & GIS in forestry and ecology.
	Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 2	
POST CODE	JRF 67
No. of Position(s)	04 (Four)
Project Name	Retrieval of Geophysical Parameters using GNSS/IRNSS Signals.
Essential Qualifications	<ul> <li>M.E. / M.Tech. in Remote Sensing &amp; GIS/ Geoinformatics/ Geomatics/ Electronics and Communication Engg./ Electronics &amp; Electrical Engg./ Computer Science/ Computer Science &amp; Engg., or equivalent subject. (OR)</li> <li>M.Sc. in Physics / Computer Science/ Agriculture (any branch), or equivalent subject.</li> </ul>
(Also refer Para 3)	(OR)
	<b>B.E. / B.Tech.</b> in Electronics & Communication Engg./ Computer Science/ Computer Science Engg./ Electronics & Electrical Engg./ Agriculture Engg./ Civil Engg./ Water Resources Engg./ GIS, or equivalent subject.

Desirable	Knowledge on GNSS-Reflectometry, Signal processing, GNSS Signals,
Qualification	Earth Observation Radar, Microwave Remote Sensing, SAR. Knowledge
	retrieval using microwave remote sensing. Experience on ground truth data
	collection and fieldwork. Programming experience in MATLAB, Python,
	IDL, GrADS, R, or in similar fields.
	Candidates are expected to have good English writing skills; ability to work
	independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 3	
POST CODE	JRF 68
No. of Position(s)	01 (One)
Project Name	Carbon Dynamics Assessment in Tropical Forests of Northeast India using Multi-Sensor Data.
Essential Qualifications (Also refer Para 3)	<ul> <li>M.Sc. in Forestry/ Ecology/ Environment Management/ Environmental Science/Botany or equivalent subject.</li> <li>(OR)</li> <li>M.E. / M.Tech. in Remote Sensing and GIS/ Environmental Engineering or equivalent subject with dissertation in Forestry/ Ecology/ Environmental Science.</li> </ul>
Desirable Qualification	Knowledge of remote sensing and GIS in forestry and ecology. Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 4	
POST CODE	JRF 69
No. of Position(s)	02 (Two)
Project Name	Spatio-Temporal Variation of Gaseous Air Pollutants over the Indian Subcontinent with a Special Emphasis on Foothills of North-Western Himalaya.
Essential Qualifications (Also refer Para 3)	<b>M.Sc.</b> / <b>M.Tech.</b> in Physics/ Atmospheric Science/ Meteorology/ Environmental Science/ Mathematics/ Remote Sensing and GIS or equivalent subject. Candidate must have studied Physics and Mathematics at graduation level.
Desirable Qualification	Candidates with Post-Graduate Degree or Diploma in Atmospheric Sciences. Hands-on experience of atmospheric models like WRF/WRF- CHEM/GEOS-CHEM/GOCART/CHIMERE etc. Good Knowledge of computer programming and LINUX. Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

	POST CODE	JRF 70
	No. of Position(s)	01 (One)
Ecological Research Stations (LTERS).	Project Name	Subtheme: Climate and Ecosystem Response Studies through Long-Terr

	M.Sc. degree in Botany/ Environmental Science/ Ecology/ Environmental
Essential	Management/ Forestry/ Life Science or equivalent subject.
Qualifications	(OR)
(Also refer Para 3)	M.Tech. degree in Applied Botany/ Environmental Science/ Ecology/
(Also refer Fara 3)	Environmental Management/ Remote Sensing and GIS (Specialization:
	forestry/ecology/atmospheric science) / Life Science or equivalent subject.
<b>Desirable Qualification</b>	Post Graduate Diploma in Remote Sensing and GIS. Experience in Remote
	Sensing and GIS data processing and analysis. Experience of field work in
	the Himalayan region.
	Candidates are expected to have good English writing skills; ability
	to work independently and also as part of a team; and be creative,
	critical, analytical and innovative in their work.
S. No. 6	
POST CODE	JRF 71

JRF 71
01 (One)
Mountain Ecosystem Project (Phase-II).
Subtheme: Strengthening Vegetation Phenology-Productivity and Climate
Linkages in North-West Himalaya.
<b>M.Sc.</b> in Forestry/ Environmental Science/ Physics/ Mathematics/ Atmospheric science or equivalent subject with dissertation in Ecosystem modelling/ Dynamic global vegetation model/ Climate model.
(OR)
M.E. / M.Tech. in Remote Sensing and GIS/ Environmental Engineering/
Atmospheric Science/ Agricultural Engineering/ Computer Science or equivalent subject with dissertation in Ecosystem modelling/ Dynamic global vegetation model/ General circulation model/ Climate model.
Knowledge of spatial data, data assimilation & working with Linux
environment.
Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 7	
POST CODE	JRF 72
No. of Position(s)	01 (One)
Project Name	Mountain Ecosystem Project (Phase-II). Subtheme: Modelling Temporal and Spatial Growth of North-West Himalayan Cities.
Essential Qualifications (Also refer Para 3)	<ul> <li>M.Sc. / M.Tech. in Remote Sensing and GIS/ Geoinformatics/ Geomatics or equivalent subject with B.E. / B.Tech. degree in Civil Engineering/ Planning or equivalent subject.</li> <li>(OR)</li> <li>M.Sc. / M.Tech. in Remote Sensing and GIS/ Geoinformatics/ Geomatics or equivalent subject with M.Sc. in Geography &amp; Graduation degree in science.</li> </ul>
Desirable Qualification	Candidates with computer programming skills (Python, Matlab etc.). Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 8	
POST CODE	JRF 73
No. of Position(s)	01 (One)
Project Name	Mountain Ecosystem Project (Phase-II). Subtheme: Soil erosion Estimation based on Radio Tracer Technique and Soil Quality Assessment in Mountainous Landscape of North-West Himalaya.
Essential Qualifications (Also refer Para 3)	<ul> <li>M.Sc. in Soil Science/ Soil &amp; Water Conservation/ Climate Change Adaptation (with courses in Agriculture &amp; Soils) or equivalent subject. (OR)</li> <li>M.Tech. in Remote Sensing and GIS/ Geoinformatics/ Geomatics or equivalent subject with specialisation/ dissertation in Agriculture &amp; Soils.</li> </ul>
Desirable Qualification	<ul> <li>Working knowledge in applications of Remote Sensing and GIS, soil erosion studies.</li> <li>Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.</li> </ul>

S. No. 9	
POST CODE	JRF 74
No. of Position(s)	01 (One)
Project Name	Mountain Ecosystem Project – (Phase-II).
	Subtheme: Observational and Simulation Study of Extreme Rainfall over the North-West Himalayan region.
Essential	M.Sc. in Physics/ Mathematics/ Atmospheric Science/ Meteorology/ Computer Science. Candidate must have studied Physics/Mathematics as a subject at Graduation level.
Qualifications	(OR)
(Also refer Para 3)	<b>M.Tech.</b> in Atmospheric science/ Meteorology/ Remote Sensing and GIS with dissertation in Atmospheric Science. Candidate must have studied Physics/ Mathematics as a subject at Graduation level.
Desirable	Knowledge of MATLAB/R with good programming skills in FORTRAN/ C/
Qualification	C++/ Python, experience of working on LINUX platform, atmospheric/meteorology data analysis/numerical weather prediction models. Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 10	
POST CODE	JRF 75
No. of Position(s)	01 (One)
Project Name	Mountain Ecosystem Project (Phase-II).
	Subtheme: Monitoring and Modelling of Hydrological Processes in Glaciated and Non-Glaciated Watersheds of North-West Himalaya.
	<b>B.Tech.</b> in Agriculture Engineering/ Civil Engineering/ Computer Science/ Geoinformatics or equivalent subject.
Essential	(OR)
Qualifications (Also refer Para 3)	M.Sc. in Hydrology/ Geology/ Atmospheric Science/ Physics/ Mathematics/ Geology/ Geography/ Geoinformatics or equivalent subject with Graduation Degree in Science.
	(OR)

	M.E. / M.Tech. in Water Recourses Engg. / Hydrology/ Remote Sensing & GIS/ Geoinformatics/ Geomatics/ Civil Engg. / Agriculture Engg. or equivalent subject with dissertation in water resources/ hydrology topic.
Desirable Qualification	Knowledge of hydrology, glaciology, optical/ microwave Remote Sensing data processing, field work, geospatial data management, hydrological modelling & computer programming (Python/Matlab). Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

S. No. 11	
POST CODE	JRF 76
No. of Position(s)	02 (Two)
Project Name	Mountain Ecosystem Phase – II.
	Subtheme: Geodynamics of Himalaya and Earthquake Precursor Study.
Essential Qualifications (Also refer Para 3)	M.Sc./ M.Sc.(Tech.)/ M.Tech. in Geology/ Geophysics/ Applied Geology/ Applied Geophysics or equivalent subject. (OR) M.Tech. in Remote Sensing & GIS with dissertation in Geosciences.
Desirable Qualification	M.Tech./ P.G. Diploma in Remote Sensing and GIS/ Geomatics; Experience in Remote Sensing & GIS; Knowledge in Procedural & Object-oriented Computer Programming/ Conversant with MATLAB/Python programming. Candidates are expected to have good English writing skills; ability to work independently and also as part of a team; and be creative, critical, analytical and innovative in their work.

# 3. Minimum essential qualifications / conditions common for all JRF posts (S. No. 1 to 11).

# 3.1 Minimum passing percentage / CGPA/ CPI in qualifying degree.

- A. B.Tech. / B.E. degree should be in First class with an aggregate minimum of 65% (average of all semesters) or CGPA/CPI grading of 6.84 on a 10 scale or equivalent.
- **B.** M.Sc. degree should be in First class with an aggregate minimum of 65% (average of all semesters) or CGPA/CPI grading of 6.84 on a 10 scale or equivalent.
- **C.** M.Tech. degree should be in First class with an aggregate minimum of 60% or CGPA/CPI grading of 6.5 on a 10 scale or equivalent.
- **D.** The candidate must be *NET/GATE/IIRS-JET* or Equivalent<sup>\*1</sup> qualified in any year in relevant subject.

**Note**<sup>\*1</sup>: *NET/GATE/IIRS-JET/ Equivalent qualification* means Scholars who are selected through National Eligibility Tests (i.e. CSIR-UGC NET including lectureship/Assistant Professorship; GATE conducted by MHRD; and IIRS-JET conducted by IIRS/ISRO) or through any national level examination conducted by Central Government Department/ Agencies and institutions such as DST, DBT, DAE, DOS, DRDO, MHRD, ICAR, ICMR, IIT, IISc., IISER etc. for admission to Ph.D. programme. The candidates qualifying the IIRS-JRF Eligibility Test (IIRS-JET) shall be considered as equivalent to NET. The following examinations can also be equated to NET.

- i. Joint Admission Test (JAM) conducted by MHRD.
- ii. Graduate Pharmacy Aptitude Test (GPAT) conducted by MHRD.
- iii. Biotechnology Eligibility Test & Test conducted in Bio-informatics by Bioinformatics National Consortium.
- iv. Joint Entrance Screening Test (JEST), Joint Graduate Entrance Examination for Biology & Interdisciplinary Life Sciences (JGEEBILS) conducted by the Department of Atomic Energy.
- v. JRF Entrance Examination conducted by the Indian Council of Medical Research.
- vi. All India Competition Examination (AICE) conducted by the Indian Council of Agricultural Research.

**3.2 JRF Age Limit:** JRF: 28 years as on the date of Walk-in interview but relaxable for 5 years in case of SC/ST candidates and 3 years in case of OBC candidates.

**3.3 JRF Fellowship & Duration**: JRFs will be paid an amount of ₹31,000/- (Rupees Thirty One Thousand only) per month as fellowship. Dearness Allowance (DA) is not admissible. However, they will be eligible for House Rent Allowance (HRA) as per the rules of the Government. For this purpose, the fellowship amount will be taken as Basic Pay. JRFs will be allowed to avail the CHSS (medical) facility for self only as per the rules of IIRS. As per the DOS / ISRO rules, JRFs are eligible for casual leave only. Maternity leave to female JRFs shall be as per the DOS / ISRO guidelines. Annual increment, Bonus, LTC, CCA, retirement benefits, etc. are not admissible.

The initial appointment shall be for one year duration and further extendible up to the project duration subject to satisfactory performance and availability of funds in the project. All the positions are co-terminus with the project. The maximum period of engagement of JRF shall not exceed FIVE years. The fellowship will not confer any claim or right for regular appointment in any DOS/ISRO centre.

**4.** The Director, IIRS reserves the right to cancel/postpone the interview without any reason thereof. He also reserves the right to terminate the contract, even before completion of the project for which no appeal thereof shall be made.

**5.** Selection process: On the date of walk-in interview, the qualification of the candidates will have to submit the Application Form along with self-attested copies of their Marksheets / Degrees, Caste certificates, NOC, Declaration etc. The walk-in interview of eligible candidates will be conducted by the selection committee. On the basis of candidate's qualification and performance in the interview, selection panel will be declared based on merit. The qualification prescribed is the minimum requirement and possessing the same does not automatically make candidate eligible for the interview. In case of large number of candidates appearing for walk-in interview then they may be interviewed on the next day, therefore, candidates are advised to accordingly make their necessary arrangement. In case of selection, at the time of joining the selected candidate's qualifying degrees/ marksheets/ NOC / certificates etc. will be verified.

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with the original. In case the candidate is found ineligible, his/her candidature shall be summarily rejected. Therefore, candidates are advised to carefully satisfy themselves regarding their meeting of minimum eligibility qualification / conditions before appearing for interview.

S. No.	Post Code	Date of interview	<b>Reporting Venue / Time</b>
01.	JRF-66, JRF-68, JRF-70, JRF-71	22 October 2021	IIRS Security Reception
02.	JRF-67	25-26 October 2021	IIRS, ISRO/DOS
03	JRF-69 & JRF-74	27 October 2021	4 Kalidas Road,
04.	JRF-72 & JRF-73	28 October 2021	Dehradun-248001
05.	JRF-76 & JRF-75	29 October 2021	Reporting time : 08:30AM

#### 6. Schedule for walk-in interview:

### 7. How to apply:

Candidates will have to FILL the Interview Application Form and bring it on the date of walkin interview along with the self-attested copies of all their educational qualification mark sheets/ degree certificates etc. The application form is available as Annexure. All applicants have to provide (mandatory) e-mail ID for future correspondence/ reference and all further communications will be made to the applicants through email/ IIRS website only. Therefore, the applicants are advised to check their email and visit the IIRS website from time to time. IIRS will not take responsibility for non-receipt of intimation regarding call letter / any communication due to technical reasons or whatsoever to the candidates. There is NO need to send the duly-filled Application Form to IIRS by mail/post. Applicants applying for multiple positions are required to submit separate application forms.

Government strives to have a workforce which reflects gender balance and women candidates are encouraged to apply.

#### 8. Other conditions/instructions:

- i. Candidates who already have the minimum essential qualification including NET/ GATE/ IIRS-JET or equivalent and meet other eligibility conditions are only eligible to appear in walk-in interview for the JRF positions. Candidates/ students awaiting for final result are not eligible and need not apply.
- ii. All applicants must fulfil the minimum essential qualification requirements of the post and other conditions stipulated in the advertisement. Mere fulfillment of the qualitative requirements of the posts will not entail a candidate to be selected. They are advised to satisfy themselves before appearing in the walk-in interview that they possess at least the essential qualifications laid down for various posts. No enquiry asking for advice on the eligibility will be entertained.
- iii. Original education, experience, Caste/ Tribe, identity certificate shall be produced at the time of joining, otherwise the candidature of the candidate will be cancelled.
- iv. Date of walk-in interview will be the cut-off date for all purposes like age, qualification, etc. Any request for change of address/email-id for communication will NOT be entertained.

- v. The selected JRFs will work on specific research theme (project). JRFs can register for Ph.D. degree in any university. Selected candidates should be willing to work anywhere in India (including remote places) and partake in field experiments as per requirements.
- vi. Canvassing in any form will result in disqualification.
- vii. If any information furnished in the application is found to be false or wrong at any stage, the candidature shall be cancelled.
- viii. CGPA/CPI shall be converted into percentage of marks as per the candidate's university norms.
  - ix. Those who are already in employment under the Central Government/ State Government/Public Sector Undertaking/ Autonomous Body or any other Organisation which is aided by the Government, shall produce "No Objection Certificate" from the employer at the time of Walk-in interview and also at the time of joining, otherwise the candidature of the candidate shall be cancelled.
  - x. Only Indian Nationals are eligible to apply.
  - xi. In case of foreign degree holders where the documents/degree/certificates are not in English then translation and authorized transcription must be attached and equivalency certificate from Association of Indian University (A.I.U.) must also be submitted. Failure to produce equivalency certificate at the time of interview shall be a disqualification. Further, equivalency of subject(s) mentioned in essential qualification will be decided by IIRS, which shall be final.
- xii. IMPORTANT:ON THE DATE OF WALK-IN INTERVIEW, THE CANDIDATES MUST BRING AND PRODUCE THEIR COVID NEGATIVE TEST REPORT (NOT OLDER THAN 2 DAYS) FAILING WHICH THEY WILL NOT BE ALLOWED TO APPEAR FOR THE INTERVIEW. FURTHER, THEY MUST STRICTLY FOLLOW ALL THE COVID PREVENTION PROTOCOLS SUCH AS MASK AND SOCIAL DISTANCING.
- xiii. All interviews will be conducted at IIRS, Dehradun. However, in view of the prevailing pandemic, the interview will be conducted in compliance to COVID prevention protocol and maintaining social distancing norms at IIRS, Dehradun.
- xiv. IIRS, Dehradun is located at about 05 km from Dehradun railway station and 10 km from ISBT, Dehradun. In order to reach the venue, you may board Vikram (blue color passenger tempo) up to Clock Tower and then from Astley Hall to Hathibarkala Post Office in order to reach the venue.
- xv. Outstation candidates who are found eligible for the interview will be reimbursed to and fro second class train fare by shortest route from the place mentioned in the Application Form to Dehradun on production of proof of travel. In case of travel by bus, the actual fare paid by candidate or second class train fare, whichever is less will be reimbursed. If candidate travels by bus, then s/he have to produce bus tickets and if s/he travels by train, s/he have to furnish either the train ticket(s) or PNR number(s) without which the TA claim will not be admissible. Sleeper class fare will be paid subject to production of railway ticket only.

- Candidates will be asked to prove their identity by showing any govt. issued xvi. identification card such as DL/AADHAAR/passport/registered mobile no. etc. before appearing in interview.
- xvii. Candidates must bring self-attested copies of their marksheets/grade cards/ certificates/ degrees including experience certificate, if applicable, in support of the declaration they have made in the Application.

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#### 9. Important dates to Remember:

Date of Walk-in Interview / Schedule: Please refer para 6 at page 7 for detailed schedule. where where