भारत सरकार **Government of India**
अंतरिक्ष विभाग **Department of Space**
भारतीय अंतरिक्ष अनुसन्धान संगठन **Indian Space Research Organisation**
भारतीय सुदूर संवेदनसंस्थान , **Indian Institute of Remote Sensing**, Dehradun
देहरादून

भर्ती सूचना / RECRUITMENT NOTICE

Advt. No.: IIRS/P&GA/GA/RECTT/31   **Date: 17/08/2020**

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 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 to apply <u>online</u> for the **Seventeen (17)** temporary positions of **Junior Research Fellow** (JRF) and **One (01)** temporary positions of **Research Associate (RA)** under the following research projects:

S. No. 1	
POST CODE	**JRF 53**
No. of Position(s)	**04**
Project Name	Retrieval of Geophysical parameters using GNSS/IRNSS signals.
Essential Qualifications (Also refer Para 3)	**M.E. / M.Tech.** in Remote Sensing & GIS/ Geoinformatics/ Geomatics/ Electronics and Communication Engg. / Computer Science / Computer Science & Engg., or equivalent subject **(OR)** **M.Sc.** in Physics / Computer Science / Agriculture (any branch), or equivalent subject. **(OR)** **B.E. / B.Tech.** in Electronics & Communication Engg. / Computer Science / Computer Science Engg. / Agriculture Engg. / Civil Engg. / Water Resources Engg. / Geoinformatics/ Remote Sensing & GIS, or equivalent subject.
Desirable Qualification	Knowledge on GNSS-Reflectometry, Signal processing, GNSS Signals, Earth Observation Radar, Microwave Remote Sensing, SAR. Knowledge on soil moisture/vegetation parameters retrieval using microwave remote sensing. Experience on ground truth data collection and field work. Programming experience in MATLAB, Python, IDL, GrADS, R, or other. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 2	
POST CODE	**JRF 54**
No. of Position(s)	**02**
Project Name	Himalayan Alpine Biodiversity Characterization and Information System-Network (NMHS).
Essential Qualifications (Also refer Para 3)	**M.Sc.** in Forestry / Ecology / Environmental Science / Botany / Wildlife Sciences / Biodiversity and Conservation, or equivalent subject **(OR)** **M.Sc.** in Remote Sensing and GIS or equivalent subject with dissertation in Forestry/ Ecology. **(OR)** **M.Tech** in Remote Sensing and GIS or equivalent with dissertation in Forestry/ Ecology.
Desirable Qualification	Knowledge of plant taxonomy and application of RS & GIS in forestry and ecology. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 3	
POST CODE	**JRF 55**
No. of Position(s)	**01**
Project Name	Chandrayaan-2 Science plan for utilization of Imaging Infrared Spectrometer (IIRS) data for lunar surface compositional mapping (SAC-IIRS joint work plan)
Essential Qualifications (Also refer Para 3)	**M.Sc./M.Tech** in Geology/ Applied Geology/ Geophysics, or equivalent subject.
Desirable Qualification	Remote Sensing & GIS background and adequate experience in planetary data analysis. Candidates should have excellent English writing skills; ability to work independently and as part of team; Creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 4	
POST CODE	**JRF 56**
No. of Position(s)	**01**
Project Name	Multi-sensor integration for digital recording, reconstruction and realistic 3D Modelling of UNESCO World Heritage sites in Northern India.

Essential Qualifications (Also refer Para 3)	M.Tech./ M.E. (with B. Tech in Computer science/IT, or equivalent subject) in Computer Science/ Computer Science & Engineering (CSE)/ Software Engineering degree from a recognized university or institution. **(OR)** B.Tech/B.E. in Computer Science/IT/Computer Science & Engineering (CSE)/Software Engineering from a recognized university or institution. **(OR)** M.Sc. from a recognized university or institution in Computer Science/IT with Physics or Mathematics as one subject at Graduation level.
Desirable Qualification	Knowledge of Python, C++, Java Script, php, PostgreSQL. Experience in GIS database creation and management using Open Source and commercial software's. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 5	
POST CODE	JRF 57
No. of Position(s)	02
Project Name	**Extending crop inventory to new crops-SUFALAM**
Essential Qualifications (Also refer Para 3)	M.Sc. Agriculture [Agriculture Physics/ Agro-meteorology/ Agronomy/ Soil Sciences/ Plant physiology]/ Physics/ Botany/ Plant Physiology/ Environmental Science, or equivalent subject. **(OR)** M.Tech. in Remote Sensing & GIS/ Geomatics, or equivalent subject.
Desirable Qualification	Computer programming skill in Python, MATLAB, IDL etc. will be given preference; Knowledge of microwave remote sensing and image processing. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 6	
POST CODE	JRF 58
No. of Position(s)	01
Project Name	Aerosol Radiative Forcing over India (ARFI)
Essential Qualifications (Also refer Para 3)	M.Sc. from a recognized university or institution in Physics / Atmospheric Science / Meteorology / Environmental Science / Remote Sensing & GIS, or equivalent subject. Candidate must have studied physics and mathematics as a subject during graduation level. **(OR)** M.Tech. in Atmospheric Science/ Meteorology/ Remote Sensing & GIS, or equivalent subject.
Desirable Qualification	Knowledge of RS & GIS application to Atmospheric Science, computer programming skill. Experience of atmospheric models like SBDART, WRF

	etc. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 7

POST CODE	JRF 59
No. of Position(s)	02
Project Name	Spatio-temporal variations of gaseous air pollutants over the Indian Subcontinent with a special emphasis on foothills of North-Western Himalaya.
Essential Qualifications (Also refer Para 3)	**M.Sc.** in Physics / Atmospheric Science / Meteorology / Environmental Science / Mathematics / Remote Sensing & GIS, or equivalent subject. Candidates must have studied Physics and Mathematics as a subject during Graduation level. **(OR)** **M.Tech.** in Physics/ Atmospheric Science/ Meteorology/ Environmental Science/ Mathematics/ Remote Sensing & GIS, or equivalent subject.
Desirable Qualification	Candidates with Post-Graduate Degree or Diploma in Atmospheric Sciences from reputed University/Institute in India/Abroad. Hands-on experience of atmospheric models like WRF/ WRF-CHEM, GEOS-CHEM, GOCART, CHIMERE etc. Good Knowledge of computer programing. Knowledge of LINUX. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 8

POST CODE	JRF 60
No. of Position(s)	02
Project Name	Indian Bio-Resource Information Network (IBIN)
Essential Qualifications (Also refer Para 3)	**M.E. / M.Tech. / M.Sc.** in Computer Science/ Computer Science & Engineering (CSE)/ Software Engineering/ Geoinformatics/ Information Technology/ Information Systems/ Remote Sensing & Geographic Information System (GIS), or equivalent subject or B.E/B.Tech. in Computer Science or equivalent.
Desirable Qualification	Knowledge in designing and developing Web based GIS applications using FOSS4G tools (Geoserver, Mapserver, PostgreSQL/PostGIS, OpenLayers, Leaflet etc). Experience candidates will be given preference. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending

	on the yearly performance review of the candidate and continuity of the project.

S. No. 9	
POST CODE	JRF 61
No. of Position(s)	01
Project Name	Rainfall threshold and DInSAR based methods for initiation of landslides and decoupling of spatial variations in precipitation, erosion, tectonics in Garhwal Himalaya.
Essential Qualifications (Also refer Para 3)	**M.Tech.** in Geology/Geophysics, or equivalent subject. **(OR)** **M.Sc.** in Geology/ Applied Geology or equivalent subject with Physics or Mathematics at B.Sc. level.
Desirable Qualification	Remote Sensing & GIS background. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 10	
POST CODE	JRF 62
No. of Position(s)	01
Project Name	Indian Bio-resource Information Network (IBIN)
Essential Qualifications (Also refer Para 3)	**M.Sc.** in Forestry/ Ecology/ Environmental Science/ Botany/ Biodiversity and Conservation, or equivalent subject **(OR)** **M.Sc./M.Tech.** in Remote Sensing and GIS, or equivalent subject with dissertation in Forestry and Ecology.
Desirable Qualification	Knowledge of plant taxonomy and application of Remote Sensing and GIS in forestry and ecology. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

S. No. 11	
POST CODE	RA 02
No. of Position(s)	01
Project Name	Indian Bio-resource Information Network (IBIN)
Essential Qualifications (Also refer Para 3)	**Ph.D. or Doctorate level degree** with thesis in Data Science/ Big Data/ Artificial Intelligence/ Machine Learning/ Deep Learning/ Computer Science/ Remote Sensing & GIS/ Geoinformatics /Forest Geoinformatics / Geomatics. **(OR)** **M.E / M.Tech.** in Remote Sensing & GIS/ Geomatics/ Computer Science/ Computer Applications, or equivalent subject with three years of research,

	teaching, design and development experience after M.E./M.Tech. and having at least one research paper in Science Citation Indexed (SCI) journal.
Desirable Qualification	1. Knowledge in designing and developing WebGIS and geo-web services applications, GIS database creation, management and geo-analytical tools 2. Knowledge in Remote Sensing and GIS field. Candidates should have excellent English writing skills; ability to work independently and as part of team; creative, critical, analytical and innovative mind-set.
Duration	The fellowship will be offered only up to February 2021 or an earlier date which shall depend on fund availability under the project. Duration may be extended for one year or further till the duration of the project depending on the yearly performance review of the candidate and continuity of the project.

3. Minimum Essential Qualifications Common for all posts

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 or Equivalent[*1] (except for Post Code RA 02)** qualified in any year in relevant subject.

Note[*1]: NET or Equivalent qualification means Scholars who are selected through National Eligibility Tests (i.e. CSIR-UGC NET including lectureship/Assistant Professorship and GATE conducted by MHRD) 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, subject to conduct of test before the interview due to COVID-19 pandemic. 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 Bio-informatics 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.

4. Age limit

JRF: 28 years as on the **last date of online application** but relaxable for 5 years in case of SC/ST candidates and 3 years in case of OBC candidates.

Research Associate: 35 years as on the **last date of online application** but relaxable for 5 years in case of SC/ST candidates and 3 years in case of OBC candidates. Persons with Disability are eligible for age relaxation as per rules.

5. Fellowship & Duration

(a) JRF: 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 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**.

(b) Research Associate: The Research Associateship is initially for a period of ONE YEAR and is renewable annually for a total period of two years (three years in exceptional cases). However, the duration of fellowship will also depend on the availability of continuity of the project and funds in the project. There will be a review of the progress of the work before the renewal every year. The RA position carries an amount of ₹47,000/- **(Rupees Forty Seven Thousand only) for the first year**, ₹49,000/- **(Rupees Forty Nine Thousand only) for the second year and** ₹54,000/- **(Rupees Fifty Four Thousand only) for the third year.** DA is not admissible. However, they will be eligible for HRA as per the rules of the Government. For this purpose, the fellowship amount will be taken as Basic Pay. They will be allowed to avail the CHSS (medical) facility for self only. Leave and other service benefits shall be as per the IIRS/ISRO/Department of Space guidelines. Annual increment, CCA, Bonus, LTC, retirement benefits, etc. are not admissible. **The fellowship will not confer any claim or right for regular appointment in any DOS/ISRO centre**.

6. Selection process: The selection will be a three-step process, i.e. screening, personal interview and document verification.

(a) **Screening Process:** Initially all the online applications will be shortlisted / screened on the basis of meeting minimum eligibility and required minimum essential qualification including NET or equivalent. It may be noted that candidates will be shortlisted for interview on the basis of the information provided by them in their online application. They must ensure that such information is true and correct. If at any subsequent stage or at the time of interview or joining any information given by them or any claim made by them in their online application is found to be false, their candidature will be summarily rejected. The prescribed qualification and other eligibility requirements are the minimum requirements and the same does not automatically make candidate eligible for the interview.

In the event of number of applications being large, IIRS may adopt short-listing criteria to restrict the number of candidates to be called for online interview to a reasonable number by any or more of the following methods:
  i.   Marks/CGPA/percentage secured in Graduate/ Post Graduate degree qualifying essential qualification.

ii. On the basis of desirable qualification (DQ) or any one or all of the DQs if more than one DQ is prescribed.

iii. On the basis of higher educational qualification(s) than the minimum prescribed in the advertisement.

iv. On the basis of more/higher experience in the relevant field (by counting experience after the acquisition of essential qualification).

v. No. of research papers published in peer-reviewed journals in the relevant field.

(b) **Online Personal Interview:** The list of screened-in candidates will be declared on the IIRS website and a communication through email will be sent to such candidates for appearing in the personal **online interview**; schedule of interview and details of the platform for the online interview will be informed later. The candidate will have to establish his/her ID by producing and forwarding his ID (govt. issued ID card) card/document for verification before his appearance for interview. In case of candidate employed with PSU, Central/State Govt. or Govt. funded institution, the candidate will have to produce NOC for appearing in the interview. In case the scheduled interviews on any given date could not be completed due to large number of candidates appearing for online interview or any other issue, the interview shall be continued the next day; therefore, the candidates are advised to accordingly make their necessary arrangement.

(c) **Document Verification:** Successful candidates will be sent joining letter through email and speed post. On the date of reporting for joining, the qualification and other eligibility requirements [viz., age, caste, relieving letter from previous employer, etc. as applicable] of the candidates will be verified with the certificates and supporting documents. In case, the candidate fails to produce the supporting certificates/ documents, his/her candidature shall be summarily rejected.

> ### ! IMPORTANT NOTE!
> *All the advertised positions are temporary and subject to fund availability, under the budget for the project. Therefore, the candidates who are declared 'Selected / Waitlisted' based on their performance in interview does not automatically confer them any right to be offered the joining letter. IIRS/ISRO reserves the right not to fill up all or any of the position, if it so decides.*

7. **Date and process of Online Interview:** To be notified later on the IIRS website.

8. **How to apply:**

Candidates will have to fill and submit the **Online Application Form** on or before the prescribed last date. The application form is hosted on our website https://www.iirs.gov.in. Applications will be received online only. Interested candidates may visit the website (https://www.iirs.gov.in) for detailed information and guidelines. **The candidates may apply online on the above website from 10:00 Hours on 17/08/2020 to 23:59 Hours on 31/08/2020**. The applicant has to provide (mandatory) E-mail ID for future correspondence/reference. Applications will be received online only and all further communications will be made to the applicants through email/ IIRS website only. Therefore, the applicants are advised to check their e-mail 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.**

In case of any query/doubt regarding online application form submission, candidates may call/e-mail at 0135-2524120, websupport@iirs.gov.in
Government strives to have a workforce which reflects gender balance and women candidates are encouraged to apply.

9. Other conditions/instructions:

i. Candidates who already have the minimum essential qualification including NET or equivalent and meet other eligibility conditions are only eligible to apply. 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 applying 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. Last date for receipt of on-online applications will be the cut-off date for all purposes like age, qualification, etc. Any request for change of address/e-mail id for communication will NOT be entertained.

v. The selected JRFs / RAs 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. Candidates in their own interest are advised to register online and submit their application well in time before the last date for submission, to avoid the possibility of disconnection / inability / failure to log on to the IIRS website on account of heavy load on server. IIRS does not assume any responsibility for the candidates not being able to submit their application within the last date on account of the aforesaid reasons or for any other reasons beyond the control of IIRS.

ix. CGPA shall be converted into percentage of marks as per the candidate's university norms.

x.   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 online interview and also at the time of joining, otherwise the candidature of the candidate shall be cancelled.

xi.   Only Indian Nationals are eligible to apply.

xii.   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 scanned and attached. 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.

10. Important dates to Remember:

Opening Date for Online Registration: **17th August 2020 (10:00 HRS)**

Closing Date for Online Registration: **31st August 2020 (23:59 HRS)**

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