

Advertisement for the post of JRFs under various ongoing research projects



Government of India
Department of Space
Indian Space Research Organisation
Indian Institute of Remote Sensing
4, Kalidas Road, Dehradun-248 001



Advt. No.: IIRS/P&GA/Estt./Rectt./9

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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 operationalisation of space-based services for national development.

Applications are invited from young and motivated candidates for the post of JRF under the following research projects:

(1) Assessing soil erosion and nutrient loss and its impact on soil quality and crop productivity (Mountain ecosystem processes and services in North Western Himalaya under EOAM mission programme of ISRO).

No. of Post: 1 (one)

Essential Qualification: B. Tech. (Agriculture Engineering) with two years experience in RS & GIS applications in agriculture or M. Tech. in Remote Sensing applications in Agriculture & Soils or M. Sc. (Agriculture) in Soil Science/Soil Conservation/Environmental Sciences/Geography with one year experience or PG Diploma in RS & GIS applications in Agriculture with minimum 55% marks. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience with working on soil erosion/hydrological modeling and climate change studies.

(2) Soil, vegetation-atmosphere-flux (National Carbon Project)

No. of Post: 1 (one)

Essential Qualification: M. Sc. (Agriculture) in Agricultural Meteorology/Agricultural Physics/Plant Physiology/Ecophysiology or M. Sc. in Atmospheric Sciences/Environmental Sciences/Biogeosciences or M. Tech. in RS & GIS applications with specialization in Agriculture/Forestry/Ecology. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Knowledge of vegetation functioning and ecosystem models and knowledge and experience on programming skill (C++, Python, IDL, MATLAB).

**(3) Climate change impact on productivity of food grain and plantation crops
(Mountain ecosystem processes and services in North western Himalaya
under EOAM mission programme of ISRO)**

No. of Post: 1 (one)

Essential Qualification: M. Sc. (Agriculture) in Agricultural Meteorology/Agricultural Physics/Agronomy/Plant Physiology/Environmental Sciences or B. Tech. (Agriculture Engineering/Agriculture IT) with two years experience in RS & GIS/M. Tech. in Remote sensing applications with specialization in agriculture and crop resource survey. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Knowledge of crop simulation models, remote sensing and grided climate data processing and knowledge & experience on programming skill (C++, Python, IDL, MATLAB).

**(4) Geodynamics and Seismicity Investigations (part of Monitoring and
assessment of ecosystem processes and services in Western Himalaya
project under EOAM programme of ISRO).**

No. of Post: 2 (Two)

Essential Qualification: M. Sc. in Geology/Applied Geology/M. Tech. Geology/Geophysics with Physics or Mathematics at B. Sc. level. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience in earthquake geological studies and knowledge/work experience in RS and with good programming skills.

**(5) Vulnerability assessment of Mountain Ecosystems due to Climate change:
Ecosystem structure and functioning (EOAM Project)**

No. of Posts: 2 (Two)

Post No. 1: JRF

Essential Qualification: P.G. Degree in Botany/Forestry/Ecology/Environmental Science. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Knowledge in Plant taxonomy.

Post No. 2: JRF (one post)

Essential Qualification: P.G. Degree in Botany/Ecology/Forestry/Environmental Science. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience in RS-GIS data handling. Candidates who have qualified NET or GATE will be given preference.

(6) Estimation of snow cover area, snow physical parameters and glacier related studies in parts of Western Himalayas using microwave and optical remote sensing (RISAT-UP project).

No. of Post: 1 (One)

Essential Qualification: B. Tech. in Agriculture/Civil/Computer Science/Electronics, Engineering or M. Sc. in Geophysics/Geo-informatics/Physics/Mathematics with at least two subjects from Hydrology/Mathematics/Physics at graduate level and with minimum of 60% marks in all degrees. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: P.G. Degree/Diploma in remote sensing/Geoinformatics and/or with some experience in Synthetic Aperture Radar (SAR) data processing from reputed University/Institute in India/abroad will be preferred.

(7) Monitoring and assessment of ecosystem processes and services in North-Western Himalaya : Modeling temporal and spatial pattern of North Western Himalayan cities (EPAM Project).

No. of Post: 1 (One)

Essential Qualification: Master degree in Urban Planning/Cit Planning/Regional Planning/Remote Sensing and GIS/Geography from a recognized Indian University/Institution. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience in use of Remote sensing/GIS.

(8) LULC dynamics and impact of human dimensions in Indian river basins (ISRO Geosphere Biosphere Programme)

No. of Posts: 3 (Three)

Post No. 1:

Essential Qualification: M. Sc./M. Tech. in Geology/Geography/Environmental Science. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: P.G. Diploma/M. Sc./M. Tech in Remote Sensing and GIS with exposure in Land use/Land cover mapping and modeling.

Post No. 2:

Essential Qualification: M. Sc./M. Tech. in Geology/Hydrology/Water Resources Science. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience in working on hydrological models and Remote Sensing & GIS.

Post No. 3:

Essential Qualification: M. Sc./M. Tech. in Remote Sensing & GIS or Geoinformatics or equivalent. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Knowledge/experience in geospatial modeling.

(9) Aerosol radiative forcing over India (IGBP Project)

No. of Post: 1 (One)

Essential Qualification: M. Sc./M. Sc. Tech./M. Tech. in Physics/Applied Physics/Atmospheric Science/Atmospheric Physics/Meteorology/Environmental Science with Physics or Mathematics at graduate level. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: PG Diploma/M. Sc./M. Tech. in Remote Sensing & GIS, Geoinformatics and working experience in Remote Sensing and GIS and also knowledge in computer programming.

(10) Monitoring and assessment of ecosystem processes and services in North-Western Himalaya : Water resources status and availability (EOAM Project)

No. of Post: 1 (One)

Essential Qualification: B. Tech. in Agriculture Engineering/Civil Engineering/Computer Sciences or M. Sc. in Physics/Mathematics/Geo-informatics with at least two subjects from Hydrology/Mathematics/Physics at graduation level. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: PG degree or Diploma in water resources/remote sensing/geo-informatics with hydrology as specialization from reputed University/Institute in India/abroad and work experience in hydrological modeling.

(11)Monitoring of crop growth and soil moisture using RISAT-1 hybrid Polarimetric SAR data (EOAM Project)

No. of Post: 1 (One)

Essential Qualification: M. Sc. in Physics / Agriculture / Botany **or** M. Sc./M.Tech. in Remote sensing / Geoinformatics with science subjects at graduation level. *[Please note that the candidates should have passed in First Division in the Qualifying Degree with an aggregate mark of 65% (average of all semesters/years as applicable). Rounding-off of marks is not allowed.]*

Desirable Qualification: Experience of working in Remote sensing project. Knowledge of image processing softwares.

Age limit: Age should not be more than 30 years on the date of receipt of application. Age relaxation to SC/ST/OBC/PWD will be admissible as per rules.

Fellowship & Duration: ` 16,000/- per month for M. Sc. candidates and ` 18,000/- per month for M. Tech. candidates + HRA (as per DOS OM A.9/2/1/2005-II (I) dated November 16, 2010 regarding revised fellowship). The monthly fellowship of ` 18,000/- will be applicable to those M. Tech. candidates if M. Tech. qualification is specifically asked under "Essential Qualification" otherwise the monthly fellowship of ` 16,000/- only will be applicable. The candidate (self only) will also be eligible for availing CHSS (medical) facility of the Department. DA, CCA, Bonus, LTC, retirement benefits, etc. are not admissible. The fellowship will be offered initially for a period of One Year under all the Projects, which can be extended for further years or till the duration of the project depending on the performance of the candidate.

Selection process: The qualification prescribed in this advertisement is the minimum requirement and the same does not automatically make candidates eligible to be called for interview. Based on the experience and details of marks furnished by the applicants, the candidates will be short listed for interview.

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

How to apply:

The interested candidates may apply in the prescribed format as given below duly signed the application format and may send along with recent colour photograph, true copies (attested by a Gazetted Officer) of all the marks sheets, degree certificates, experience certificate, caste/tribe certificate etc. by Speed Post to Administrative Officer (PA), Indian Institute of Remote Sensing, Department of Space, Government of India, No. 4, Kalidas Road, Dehradun-248 001 (Uttarakhand). The application form should reach to the Administrative Officer (PA), IIRS, Dehradun within 25 days from the date of publication of advertisement in the news papers.

Other conditions/instructions: Candidates belonging to OBC must submit a certificate specifically including the clause regarding exclusion from creamy layer which should be updated/valid at the time of submission of the application. Mere fulfillment of the qualitative requirements of the posts will not entail a candidate to be called for interview. A duly appointed screening committee will initially scrutinize the applications, evolve a criteria depending on the number of applications received *vis-à-vis* positions to be filled and make a shortlist of the candidates to be called for further interview. Those who are already in

employment under the Central Government/State Government/Public Sector Undertaking/Autonomous Body or any organizations which is aided by the Government, should apply through proper channel. Only Indian National needs to apply. No interim correspondence will be entertained. IIRS reserves the right not to fill the position, if it desires so. Canvassing in any form will be a disqualification.

Application for the Post of Junior Research Fellow (JRF)

Affix
Photograph

1. Advertisement No. and Date:

2. Name of Post:

3. Project Name:

4. Name : _____

1. First Name Middle Name Surname

5. Name of Father/ Husband/ Guardian:

6. Date of Birth:

7. Sex (Male / Female):

8. Nationality:

9. Address for Correspondence:

10. Phone/Mobile & E-mail:

11. Permanent Address:

12. Educational Qualification (from 10th Class onwards):

Class/ Degree	Subject(s)	Division	% or Grade [@]	Board/Institute/ University	Year of passing

[@] Mention conversion factor in case of grade

13. Experience in Remote Sensing & GIS:

14. Computer knowledge :

- Professional qualification, if any:
- Knowledge of programming language(s):
- Knowledge/ Experience in handling DIP/GIS software:

15. Whether qualified CSIR/UGC NET exam and validity (if applicable):

16. Previous Employment (in chronological order):

17. Whether “No Objection Certificate” from employer enclosed (if applicable):

18. Any other information:

Certified that all the information provided above are true to the best of my knowledge and belief.

Date:

(Signature of Candidate)

Place:

Note: Please attach attested copies of mark sheets/certificates/testimonials, etc. along with the Application Form. Originals are to be produced at the time of interview. Duly filled in application in all aspects should reach to us by the specified date. Incomplete/delayed applications will not be considered.