



Government of India  
Department of Space  
Indian Space Research Organisation  
Indian Institute of Remote Sensing  
Dehradun



Advt. No.: IIRS/P&GA/Estt./Rectt./09

Dated: June 11, 2014

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

**No. of Post-1 (One)**

**Essential Qualification:** P.G. Degree in Botany/Forestry/ Ecology/Environmental Science with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Knowledge in Plant taxonomy. Experience in RS-GIS data handling.

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

**No. of Post-1 (One)**

**Essential Qualification:** M. Tech. in Agriculture/Civil/Computer Science/Electronics, Engineering or M.Sc. in Geo-informatics/Physics/ Mathematics with at least two subjects from Hydrology/ Mathematics/Physics at graduate level and with 65% marks. Rounding-off 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/ will be preferred.

**3. Mapping, Modelling, & Impact Assessment of Land Subsidence in Northern India (EOAM Project)**

**No. of Post-1 (One)**

**Essential Qualification:** M.Sc. /M.Sc. Tech. /M. Tech. in Geology/ Geophysics/Physics with at least two subjects from the following four subjects in B.Sc.: Geology, Physics, Mathematics, Chemistry with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** PG Diploma/M.Sc./M. Tech. in Remote Sensing & GIS/ Geoinformatics OR experience of working in a Remote Sensing & GIS Project.

#### **4. Remote Sensing based hydro-meteorological data assimilation in the hydrological and weather forecasting models (EOAM Project)**

**No. of Post-1 (One)**

**Essential Qualification:** M. Tech. in Agriculture Engineering/Civil Engineering/ Computer Sciences/ Remote Sensing/ Geomatics/Geoinformatics or M.Sc. in Meteorology/ Atmospheric Sciences/Physics/ Mathematics/ Geo-informatics with at least two subjects from Hydrology/ Mathematics/Physics at graduate level with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** First Class M. Tech. in Agriculture Engineering/ Civil Engineering/ Computer Sciences/Remote Sensing/Geomatics or M.Sc. in Meteorology/ Atmospheric Sciences/Physics/Mathematics/Geo-informatics with at least two subjects from Hydrology/Mathematics/Physics at graduate level. First class in all degrees is essential.

#### **5. IGBP-NCP- Soil Carbon Project (SCP) Phase-II of NRSC**

**Essential Qualification:** M.Sc. in Soil Science/Environmental Sciences/Geography OR M. Tech in Remote Sensing Applications with specialization in Agriculture with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** One year experience of RS&GIS applications in agriculture.

#### **6. Indian Bioresource Information Network (IBIN National Project)**

**No. of Post-1 (One)**

**Essential Qualification:** M.Sc./M. Tech. in Computer Science/IT/Software Engineering /Geoinformatics or equivalent/MCA with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Software development and working knowledge in Remote Sensing & GIS.

#### **7. Soil, Vegetation – Atmosphere Carbon Flux Measurement and Modelling Project.**

**No. of Post-1 (One)**

**Essential Qualification:** First Class M.Sc. (minimum 65% marks) in Forestry/Ecology/ Botany/ Ecophysiology/Environmental Science with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Knowledge of statistical/mathematical data processing and computer programming. Degree/Diploma in Remote Sensing & GIS applications.

#### **8. Development of spectral library and reflectance spectroscopy for mineral exploration in parts of mineral rich belt of Rajasthan and Odisha**

**No. of Post-1 (One)**

**Essential Qualification:** M. Sc. in Geology/Applied Geology/M. Tech Geology/Geophysics with physics or mathematics at B. Sc. level with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Experience in Remote Sensing/Image Processing/Computer Programming/ Field Geological Investigation/Holder of CSIR/UGC fellowship/Candidates with Ph. D experience will be preferred.

### **9. Precise Terrain Parameter extraction using Low Altitude Platform data**

**No. of Post-1 (One)**

**Essential Qualification:** M.E./M. Tech/Civil/Electronics/ Electrical/ Computer Science or M.Tech./M .Sc in Geoinformatics/ Remote Sensing/Geomatics or equivalent with Physics and Mathematics at graduate level with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Candidates with P.G Diploma in Remote Sensing (or) Knowledge/work experience in Remote Sensing and with good programming skills will be given preference.

### **10. Automatic Retrieval system and monitoring of water, vegetation and built up area at variable scales using remotely sensed images.**

**No. of Post-1 (One)**

**Essential Qualification:** M. Tech/M. Sc. in Geoinformatics/Remote Sensing/Geomatics with BE/Civil/Electronics/Electrical/ Computer Science or M. Sc Physics/Maths with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Candidates with strong programming skills will be given preference.

### **11. 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:** M.Sc. in Soil Science/Soil Conservation/Environmental Sciences OR M. Tech. (Agri. Engg.) OR M. Tech. in Remote Sensing applications with specialization in Agriculture with 65% marks. Rounding-off marks is not allowed.

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

### **12. 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. in Agricultural Meteorology/ Agricultural Physics/ Agronomy/Plant Physiology/ Environmental Sciences OR M. Tech. (Agriculture Engineering/Agriculture IT) OR M. Tech. in Remote Sensing applications with specialization in Agriculture and crop resource survey with 65% marks. Rounding-off marks is not allowed.

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

### **13. Vulnerability assessment of Mountain Ecosystems due to Climate change: Ecosystems structure and functioning (EOAM Project)**

**No. of Post-1 (One)**

**Essential Qualification:** P.G. Degree in Botany/Forestry/ Ecology/Environment Science. (Please note that the candidates should have passed in First Division in the Qualifying Degree with 65% marks. Rounding-off marks is not allowed.

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

### **14. 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 65% marks. Rounding-off marks is not allowed.

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

### **15. Optimizing parameters from multiple sensors for biomass estimation at ICES at GLAS footprint using different regression algorithms**

**No. of Post-1 (One)**

**Essential Qualification:** First Class M.Sc./M. Tech. degree in Physics/Remote Sensing/ Geoinformatics/Computer Science/Computer Applications/Forestry with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Programming knowledge, RS&GIS data handling

### **16. Evaluation of Pol-In SAR data for forest biophysical parameters retrieval**

**No. of Post-1 (One)**

**Essential Qualification:** First Class M.Sc./M. Tech. degree in Forestry/Environmental Sciences/ Physics/Geoinformatics with 65% marks. Rounding-off marks is not allowed.

**Desirable Qualification:** Experience in RS&GIS data handling/Project Work.

**Age limit:** Age should in between 18 – 28 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:** Applications will be received online only. The detailed advertisement and application format for online registration will be hosted on our web-site <http://www.iirs.gov.in> from **12.06.2014** to **07.07.2014** for registering the applications. After registration, it is mandatory to send one printed copy of the duly signed online application form, color photographs, attested true copies of all the mark sheets, degree certificates, experience certificate, caste/tribe certificate etc. to the following address by **SPEED POSTS**. The form should reach to **ADMINISTRATIVE OFFICER (PA), INDIAN INSTITUTE OF REMOTE SENSING (ISRO), 4, KALIDAS ROAD, DEHRADUN – 248001 (UTTRAKHAND)** on or before **22.07.2014** failing which online application will be rejected outright.

**Other conditions/instructions:** Mere fulfillment of the requirements of the post will not entail a candidate to be called for test/interview. A duly appointed screening committee will initially scrutinize the applications, evolve criteria depending on the number of applications received vis-à-vis posts to be filled and make a shortlist of the candidates to be called for further test and/or interview. Those who are already in employment under the Central Government/State Government/Public Sector Undertaking/Autonomous Body or any organizations 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 any or all the posts, if it desires so. Canvassing in any form will be a disqualification.