भर्ती सूचना / RECRUITMENT NOTICE

Advt. No.: IIRS/P&GA/R&R/RMT/JRF/38   **Date:06/06/2024**

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 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) and **Two (02)** temporary positions for **Research Scientist (RS)** under the following research projects:

Sl. No. 1	
POST CODE	**JRF 106**
No. of Position(s)	**02 (Two)**
Project Name	Retrieval of Geophysical Parameters using Global Navigation Satellite System (GNSS) / Indian Regional Navigation Satellite System (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.

S. No. 2	
POST CODE	**JRF 107**
No. of Position(s)	**01 (One)**
Project Name	Aerosol Radiative Forcing over India (ARFI), IGBP
Essential Qualifications (Also refer Para 3)	**M.Sc.** from recognised University or Institution in Physics / Atmospheric Science / Meteorology / Environmental Science / Remote Sensing & GIS or equivalent subject. Candidates must have studied Physics and Mathematics as a subject during Graduate level. **(OR)** **M.Tech.** in Atmospheric Science / Meteorology / Remote sensing & GIS, or equivalent.
Desirable Qualification	Knowledge of RS & GIS application to Atmospheric Science and Computer programming skills. Experience of atmospheric models like SBDART, WRF, etc. Candidates should have excellent English writing skills; ability to work independently and as a part of team. Candidates should be creative, critical analytical and should have innovative mind-set.

S. No. 3	
POST CODE	**JRF 108**
No. of Position(s)	**01 (One)**
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)	**M.Sc/M.Tech** in Atmospheric Science/Meteorology/ Physics/ Mathematics/ Remote sensing and GIS or equivalent. 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 (MATLAB/PYTHON) and LINUX.

S. No. 4	
POST CODE	**JRF 109**
No. of Position(s)	**04 (Four)**
Project Name	EOAM Project: Integrated use of Active and Passive EO and Ground based data for Archaeological Investigations of Heritage Sites.
Essential Qualifications (Also refer Para 3)	**M.Sc** from a recognized university or institution in Physics/Applied Physics/Mathematics/ Applied Mathematics/Geomatics/ Geoinformatics/ Remote Sensing/Computer Science/IT or equivalent with Physics or Mathematics as one subject at Graduation Level. **(OR)** **M.Tech/M.E** from a recognized university or institution in Civil Engineering/Geomatics/Geoinformatics/ Remote Sensing/Computer Science/Computer Science & Engineering (CSE) or equivalent with (a) B.E/ B.Tech in Civil/ Electronics/ ECE/ Software/ Computer Engineering/ IT/ Geomatics/ Geoinformatics/ Remote Sensing and GIS or equivalent, or (b) M.SC (Physics, Maths, CS/IT, Geology) or equivalent. B.Tech/B.E in computer Science/ IT/software engineering from a recognized university.
Desirable Qualification	- Knowledge of Remote Sensing, GIS, Databases and surveying - Knowledge of Python, C++, Java Script, php, PostgreSQL - Experience in GIS Database creation and management using Open Source and commercial software.

S. No. 5	
POST CODE	**JRF 110**
No. of Position(s)	**01 (One)**
Project Name	Integration of EO based Gridded Urban Morphology Data in High Resolution Urban Numerical Weather Prediction Model for Extreme Weather events.
Essential Qualifications (Also refer Para 3))	**M.Planning** (Urban Planning/City Planning/Regional Planning/Environment Planning or equivalent), or **M.Tech** (Civil Engg./Computers/Information Technology/ Remote Sensing and GIS/ Geoinformatics/ Geomatics or equivalent) or **Master in Science** (any stream)/ Geography or equivalent).
Desirable Qualification	Candidates with Post-graduate Degree/Diploma in Remote Sensing/GIS /Geoinformatics/ Geomatics or experience in use of Remote Sensing and GIS/ Linux/ Downscaling / Urban climate modelling will be given preference.

S. No. 6	
POST CODE	**RS 09**
No. of Position(s)	**01 (One)**
Project Name	Development of a Mobile App for vetting, and attribute and Primary Data collection for master plan formulation (Sankalan 2.0) for the Sub-scheme on Formulation of GIS based Master Plans of Towns with population of 50,000-99,999 under AMRUT 2.0
Essential Qualifications (Also refer Para 4)	**Master's Degree** in Planning (Urban/ Regional or equivalent specialization) with Bachelor in Architecture/Civil/Planning. OR **M.Tech/M.Sc.** in Remote Sensing and GIS/ Geoinformatics or equivalent specialization with Bachelor Degree in Planning OR **M.Sc**. in Geography with Bachelor in Science in any subject.
Desirable Qualification	Candidates with Experience in use of Remote Sensing and GIS will be given preference.

S. No. 7	
POST CODE	**JRF 111**
No. of Position(s)	**01 (One)**
Project Name	Geo-Ganga: Space Based Mapping and Monitoring of Ganga River
Essential Qualifications (Also refer Para 3)	**M.Tech/ M.E.** in IT/Comp. Sci./ Geo-informatics/ M.Sc. Geo-Informatics or equivalent. **(OR)** **B.Tech/ B.E.** in IT/ Comp.Sci./Geo-informatics or equivalent.
Desirable Qualification	• Knowledge of computer programming (Java, Java Script, Python, etc.), Web Development on open- source platforms, remote sensing data processing, geospatial data management. • Preference will be given to the candidates having experience in building web portal, ArcGIS enterprise platforms and android based mobile application development.

S. No. 8	
POST CODE	**JRF 112**
No. of Position(s)	**01 (One)**
Project Name	Applications of Satellite Data for Numerical Modeling Studies of Tropical Cyclones over the North Indian Ocean (ISRO DMSP- Advance and Capacity Building)
Essential Qualifications (Also refer Para 3)	**M.Sc.** from recognized university or institution in Physics/ Mathematics/ Atmospheric Science/ Meteorology. Candidates must have studied Physics/Mathematics as a subject during Graduate Level. **(OR)** **M.Tech.** in Atmospheric Science/Meteorology/ Remote Sensing & GIS (with specialization in Atmospheric Sciences or equivalent). Candidates must have studied Physics/Mathematics as a subject at Graduate Level
Desirable Qualification	Good Working knowledge of programming languages viz, Python/Fortran/C, etc. Good Knowledge and working experience in data analysis tools viz, GrADS/IDL/MATLAB etc. Work experience on UNIX/LINUX platform. Work experience in atmospheric/ meteorological data analysis and numerical weather prediction models. Candidates should have excellent English writing skills; ability to work independently and as a part of team.

S. No. 9	
POST CODE	**RS 10**
No. of Position(s)	**01 (One)**
Project Name	Development of a Mobile App for vetting, and attribute and Primary Data collection for master plan formulation (Sankalan 2.0) for the Sub-scheme on Formulation of GIS based Master Plans of Towns with population of 50,000-99,999 under AMRUT 2.0
Essential Qualifications (Also refer Para 4)	**B.E/B.Tech**. in Comp Sc./Engg or equivalent OR **M.Tech/ M.Sc** in Remote Sensing and GIS/Geoinformatics or equivalent specialization with B.E./B.Tech. in Comp Sc./Engg. Or equivalent.
Desirable Qualification	Candidates with proven/operational experience in software Development specifically for mobile platform, Android/ Mobile app development will be given preference.

S. No. 10	
POST CODE	**JRF 113**
No. of Position(s)	**01 (One)**
Project Name	Multi-Satellite Multi-Sensor Approach to Generate the High Resolution Glacier Related Essential Climate Variables Product in Himalaya
Essential Qualifications (Also refer Para 3)	**M.Tech** in Civil Engg./Water Resources Engg./ Hydrology/ Computer Science/ Geoinformatics./ Remote Sensing & GIS (with dissertation in the field of cryosphere/ glacier dynamics) or equivalent. **(OR)** **B.E/B.Tech** in civil Engg./ Water Resources Engg./Hydrology/ Computer Science/ Geoinformatics/ Remote Sensing & GIS or equivalent. **(OR)** M.Sc in Hydrology/ Geology/ Physics/ Mathematics/ Remote Sensing & GIS/Geoinformatics/ Atmospheric Sciences or equivalent with Mathematics as a subject at Graduation Level.
Desirable Qualification	• Knowledge of hydrology, cryosphere/glacier dynamics • Experience in the processing of optical/ microwave remote sensing data, geospatial data management, hydrological modelling and computer programming (Python, Matlab) • Preference will be given to the candidates ready to carry out field survey in rugged glaciated high altitude terrain

S. No. 11	
POST CODE	**JRF 114**
No. of Position(s)	**01 (One)**
Project Name	"Remote Sensing and Modeling Approach to Generate the High Resolution Snow ECV's Products in Himalaya"
Essential Qualifications (Also refer Para 3)	**M.Tech**. in Civil Engg/ Water Resources Engg./ Hydrology/ Computer Science/ Geoinformatics / Remote Sensing & GIS (with dissertation in the field of cryosphere/ hydrology) or equivalent. **(OR)** **B.E./B. Tech B** in Civil Engg./ Water Resources Engg./ Agriculture Engg./ Hydrology/ computer Science/ Geoinformatics/ Remote Sensing & GIS or equivalent). **(OR)** **M.Sc.** in Hydrology/ Geology/ Physics/ Mathematics/ Remote Sensing & GIS/ Geoinformatics/ Atmospheric Sciences or equivalent with Mathematics as a subject at Graduation Level.
Desirable Qualification	• Knowledge of hydrology, cryosphere and snow hydrology • Experience in the processing of optical/ microwave remote sensing data, geospatial data management, hydrological modelling and computer programming (Python/Matlab) • Preference will be given to the candidates ready to carry out field survey in rugged snow-bound high altitude terrain of Himalaya.

S. No. 12	
POST CODE	**JRF 115**
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)	**M.Sc** in Forestry/ Ecology/Environment Management/ Environmental Science/ Botany or equivalent. **(OR)** M.Tech in Remote Sensing and GIS or equivalent with dissertation in Forestry/ Ecology/ Environmental Science or M.E/ M.Tech in Environmental Engineering with dissertation in Forestry/ /Ecology/ Environmental Science.
Desirable Qualification	Knowledge of remote sensing and GIS in forestry and ecology.

S. No. 13	
POST CODE	**JRF 116**
No. of Position(s)	**01 (One)**
Project Name	River discharge estimation at virtual stations using hydrodynamic modelling and satellite observations
Essential Qualifications (Also refer Para 3)	**M.Tech.** in Civil Engg./ Water Resources Engg./ Hydrology/ Remote Sensing & GIS (with dissertation in the field of flood hydrology/ hydrodynamic modeling) or equivalent. **(OR)** **B.E./B. Tech** in Civil Engg./ Water Resources Engg./Agriculture Engg./ Hydrology/ or equivalent. **(OR)** **M.Sc.** in Hydrology/ Hydrogeology/ Water Resources/ Remote Sensing & GIS/ or equivalent with Mathematics as a subject at Graduation Level.
Desirable Qualification	- Knowledge of hydrology, hydrological-hydrodynamic modeling - Experience in the processing of optical/ microwave remote sensing data, geospatial data management, hydrological modelling and computer programming (Python/ Matlab) - Preference will be given to the candidates ready to carry out rigorous field survey

S. No. 14	
POST CODE	**JRF 117**
No. of Position(s)	**01 (One)**
Project Name	Land Surface Modelling and Remote Sensing Based Generation of Evapotranspiration Land Product"
Essential Qualifications (Also refer Para 3)	**M.Tech.** in Agriculture Engineering/ Civil Engg./ Water Resources Engg./Hydrology/Computer Science/ Remote Sensing & GIS (with dissertation in the field of agriculture/ irrigation) or equivalent. **(OR)** **B.E/ B.Tech**. in Agriculture Engineering/ Civil Engg./ Water Resources Engg./ Hydrology/ Computer Science/ Remote Sensing & GIS or equivalent. **(OR)** **M.Sc** in Hydrology/ Physics/ Mathematics/ Remote Sensing & GIS or equivalent with Mathematics as a subject at Graduation Level.
Desirable Qualification	- Knowledge of hydrology, agriculture, irrigation water management - Experience in the processing of optical/ microwave remote sensing data, geospatial data management, hydrological modelling and computer programming (GEE/ Python/ Matlab) - Preference will be given to the candidates ready to carry out field survey in rugged high altitude terrain