



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
INDIAN SPACE RESEARCH ORGANISATION
SPACE APPLICATIONS CENTRE
AHMEDABAD - 380 015.



Site for on line application will be opened from 05/08/2013 to 23/08/2013 from 08:00 hours to 20: 00 hours.

Advertisement No.SAC: 02/2013

Space Applications Centre (SAC), Ahmedabad is one of the lead Centres of Indian Space Research Organisation (ISRO), Department of Space (DOS). SAC focuses on design of space borne instruments for terrestrial and planetary missions of ISRO and development and operationalisation of space technology for societal benefits. The applications cover communication, broadcasting, navigation, disaster monitoring, meteorology, oceanography, environment monitoring and natural resources survey. All the transponders for the INSAT and GSAT series of communication satellites and the optical and microwave sensors for IRS series of earth observation satellites are designed and developed by SAC. Further SAC develops ground transmit and receive systems and data / image processing systems. SAC has highly sophisticated payload design and integration laboratories and facilities for electronic and mechanical fabrication, environmental tests and image processing and analysis. Campus library of SAC is the finest in western region. SAC is also actively involved in imparting training to scientists and engineers of the Asia Pacific region through the nine months PG diploma programs of the UN-CSSTEAP.

SAC has made pioneering contributions in the field of agriculture, forestry, coastal zone management, urban planning, snow and glacier studies, oceanography and atmospheric studies. SAC has developed concept and techniques for pre-harvest estimation of production of major crops under multi-agency FASAL project, forecasting of potential fishing zones using OCM and other satellite data, studies of Himalayan glaciers and snow cover and monitoring of coastal zones using optical as well as microwave remote sensing data. Methodology for tracking cyclones in terms of direction and land falls has been developed and used for recent cyclones like Laila, Phet, Jal etc. Algorithms have also been developed to derive ocean parameters like sea surface temperature, wind speed, wave heights etc as well as atmospheric parameters such as water vapour, cloud liquid water content etc.

Present thrust areas for applications are towards utilization of data from Indian satellite missions including INSAT-3D, Oceansat-2, Cartosat series RISAT-1, Resourcesat-2, Meghatropiques, etc and the planetary mission like Chandrayaan-1. A Programme on Climate change Research in Terrestrial environment (PRACRITI) is initiated to study the impact of climate change on Agriculture System, Himalayan, Cryosphere, Terrestrial Hydrology over India and Sensor System Studies for Monitoring of Green House Gases and Meteorology and Oceanography program.

SAC invites **on-line** applications for **JUNIOR RESEARCH FELLOWS (JRF) AND RESEARCH ASSOCIATES (RA)** as per the following:

Junior Research Fellows:

Post Code	Subject Specialization	Essential Qualifications
1	Agriculture (Agrometeorology/ Agronomy/ Soil Science/ Crop Physiology)	M.Sc./M.Tech. (in the relevant subject) FIRST CLASS with 65% marks or above. (Aggregate of all Semesters/ Years) or CGPA/CPI grading of 6.5 on a 10 scale or equivalent from recognized University/ Institution.
2	Botany	
3	Geoinformatics/Geomatics	
4	Geology	
5	Geophysics	
6	Environmental Science	
7	Mathematics	
8	Marine Biology	
9	Physics	
10	Physical Oceanography	
11	Electronics/Instrumentation Technology	M.Sc. (in the relevant subject) FIRST CLASS with 65% marks or above (Aggregate of all Semesters/ Years) or CGPA/CPI grading of 6.5 on a 10 scale or equivalent from recognized University/Institution.
12.	Physics/Applied Physics/Electronics/ Optics/Applied Optics	M.Sc./M.Tech. (in the relevant subject) FIRST CLASS with 65% marks or above. (Aggregate of all Semesters/ Years) or CGPA/CPI grading of 6.5 on a 10 scale or equivalent from recognized University/ Institution.

Knowledge of Computer Programming is desirable for all posts.

Selected candidates shall have the opportunity of working in the advanced research areas under the guidance of senior scientists. They shall also be encouraged to register for Ph.D. Degree in Indian Universities.

Job Description:

The candidates in general will be required to work in a multi-disciplinary team for the study and modeling related to natural resources, environment, ocean and the studies related to planetary sciences. They will also be involved in analysis of the satellite data along with ancillary and GPS data for retrieval and modeling. The work will also involve collection of insitu data in different parts of the country.

Post Code.: 1-11 :

Selected candidates will be engaged in research involving analysis of remote sensing data for deriving/retrieval bio/geo physical parameters and their validation technique development of crop production forecast, crop growth modeling, agro-ecosystem studies/environment impact/climate change studies, glacier studies, hydrological modeling, atmospheric and oceanographic processes, coral reef research, planetary science studies and for calibration and validation (Cal-Val) studies including Cal-Val instrumentation.

Post Code: 12 :

The selected persons will be involved in the following activities related to the development of electro-optical sensor systems for LEO-GEO and planetary mission projects.

- a) Optical design, analysis, simulations and solid modeling
- b) Generation of specifications for procurement of different subsystems/ components (optics, detectors etc.) which will be used for the realization of the total system.
- c) Incoming inspection for specific compliance of different subsystems/ components.
- d) Characterization of these subsystems/components in different wavelength regions of electromagnetic spectrum.
- e) Assembly and integration of subsystems/components into sensor systems, optimization of the total system parameters to the required specifications.
- f) Spectral calibration activities for optics, optical system, detectors and also of electro-optical sensor with sophisticated equipment like VIS-IR spectrometer, FTIR, etc.
- g) Radiometric calibration activities for sources and detectors in different wavelength regions of electromagnetic spectrum.

Fellowship Amount: (JRF)

₹.16000/- per month + 20% H.R.A. (for 1st and 2nd year)
₹.18000/- per month + 20% H.R.A. (subsequent years)

Age Limit : 18-28 years as on **23/08/2013**. Persons with Disabilities are eligible for age relaxation as per rules.

Research Associates:

Post Code	Subject Specialisation	Essential Qualification
13.	Agriculture (Agrometeorology/ Agronomy/Soil Science/Crop Physiology)	Fresh Ph.D. Or M.Sc./M.Tech. (in the relevant subject) First Class with an aggregate minimum of 65% or above or CGPA/CPI grading of 6.5 on a 10 scale from recognized University/Institution with minimum 4 years relevant research experience. The relevant experience for different posts is mentioned below.
14.	Geoinformatics	
15.	Environmental Science/Natural Sciences	
16.	Physics	
17.	Geology	
18.	Geophysics	
19.	Marine Biology/Botany	

Job Description:

The candidates in general will be required to work in a multi-disciplinary team for the study and modeling related to natural resources, environment, ocean and the studies related to planetary sciences. They will also be involved in analysis of the satellite

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data along with ancillary and GPS data for retrieval and modeling. The work will also involve collection of insitu data in different parts of the country. Working experience with remote sensing data processing and knowledge of computer programming languages is desirable for all the posts.

Post Code: 13-16: Selected candidates will be required to work in a multi-disciplinary team for insitu data collection and analysis of remote sensing data for hydrological modeling, crop growth modeling and hyper-spectral analysis for vegetation, Multi frequency and polarimetric SAR for vegetation monitoring and characterization and atmospheric and oceanographic processes and should have relevant experience in one of the mentioned field.

Post Code: 17-19 : Selected candidates will be required to work in a multi-disciplinary team for insitu data collection and analysis of remote sensing data for ocean color data, phytoplankton types discrimination, retrieval of satellite based geophysical parameters and validations, studies of atmospheric and oceanographic processes, coastal zone management and analysis of planetary remote sensing data sets of Moon and Mars and should have relevant experience in one of the mentioned field.

Associateship amount:

₹.22,000/- per month + 20% H.R.A.	-	Research Associateship I
₹.23,000/- per month + 20% H.R.A.	-	Research Associateship II
₹.24,000/- per month + 20% H.R.A.	-	Research Associateship III

Candidates would be awarded one of the above grades of Associateship amount depending on their merit as assessed by the Selection Committee.

Age Limit : 18-35 years as on **23/08/2013** Persons with Disabilities are eligible for age relaxation as per rules.

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

How to apply

- Application should be registered **on-line only**. Upon registration, applicants will be provided with an **on-line Registration Number**, which should be carefully preserved for future reference. It is also mandatory to send hard copy of on-line application summary with signature and colour photograph pasted in the appropriate column along with attested true copies of the testimonials such as Marksheets and certificates of all Educational Qualification, Caste certificate (if applicable), experience certificate etc. to the following address superscribing the **Advertisement Number, Post Number and Registration Number on the Front side of the cover and should reach on or before 02/09/2013 through ordinary post only.**

**ADMINISTRATIVE OFFICER (R & R)
RECRUITMENT SECTION (P & GA)
BUILDING NO. 30-D,
SPACE APPLICATIONS CENTRE (ISRO)
AMBAWADI VISTAR P.O.
AHMEDABAD – 380 015**

GENERAL INFORMATION

1. Only Indian Nationals need apply.
2. There will be an initial screening of applications based on factors such as qualification, percentage etc. vis-à-vis the number of applications and those screened in only will be called for test and interview as the case may be.

3. Out-station candidates called for test/interview will be paid to-and-fro second-class railway fare by the shortest route on production of proof of journey, such as the railway ticket number or bus tickets etc. The candidates will also have to produce documentary proof in original, of the details furnished in their application at the time of attending the test/interview.
4. SAC reserves the right not to fill up any of the positions, if it so decides.
5. Canvassing in any form will be a disqualification and no interim correspondence will be entertained.
6. Space Applications Centre is recognized as a Research Centre of many Indian Universities and selected candidates shall have the opportunity of working in the advanced research area under the guidance of senior scientists. They shall also be encouraged to register for Ph.D Degree in Indian Universities.
7. Junior Research Fellows and Research Associates will be engaged initially for **one year** and their terms shall be extended based on need and assessment of their work and requirement of project. The maximum period of engagement of **Junior Research Fellow** shall not exceed **four** years and Research Associates not exceeding **three** years. The fellowship/associateship will not confer any claim or right for regular appointment in any of ISRO/DOS Centres.
8. Clearance of appropriate authority will have to be taken before publishing any work/report.
9. Leave and medical facilities will be extended as applicable.
10. Candidates working in Government/Public Undertaking/Quasi-Government/Autonomous Organisation should ensure that their applications are sent through proper channel. In case, they anticipate any delay in forwarding their applications, they may submit advance copies of their applications before the due date. However, they should produce at the time of attending the test/interview in SAC, either a '**NO OBJECTION CERTIFICATE**' from their respective organisation in original, or an attested copy of the communication under which their applications have been forwarded to SAC for consideration.
11. Candidate should produce original testimonials/certificates, as a proof of the details furnished in their applications, at the time of test/interview for verification failing which they will not be allowed to appear for test/interview nor the cost of the travel reimbursed/paid
13. **Stipulated experience will be reckoned only after acquiring essential qualification.**
14. No correspondence will be entertained with the candidates who are not short-listed for test/interview.
15. Incomplete applications and those received after the due date will be rejected out-right.
16. If any information in on-line application found to be wrong or false or incomplete, the candidate will not be interviewed and TA will not be paid.

N.B : Please ensure to enter NET score

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