

Government of India, Department of Space  
Indian Institute of Space Science and Technology  
[Declared as Deemed to be University under Sec.3 of the UGC Act 1956]  
Valiamala PO, Thiruvananthapuram -695 547, Kerala

**Application for Research/ Project Fellow (Online Application only)**

Indian Institute of Space Science and Technology (IIST) invites application for following positions to work in the research project:

Sl. No.	Category No.	Educational Qualification / Skill	Project Title	No. of positions
<b>Junior Research Fellow</b>				
01	JRF-01/2023	M.E / M.Tech with GATE in any discipline. <u>Desirable:</u> 1. Good knowledge in Instrumentation / Chemical synthesis and characterization or Semiconductor Physics. 2. Experience in Instrumentation or nanomaterial synthesis and characterization or Semiconductor device/ Physics. 3. Hands on experience on Sensor Instrumentation.	<b>Note: The selected candidate can register for IIST PhD programme subject to fulfilment of eligibility conditions for PhD admission in IIST. For further information in this regard please refer to <a href="https://www.iist.ac.in/admissions/phd/regular">https://www.iist.ac.in/admissions/phd/regular</a></b> Design and Development of Gas sensor array for monitoring Critical Gases in Crew Modules	01
02	JRF-02/2023	M.Sc Physics with CSIR-NET or GATE Score OR M.Tech in Electronics / Nanotechnology / Instrumentation or related areas with GATE. <u>Desirable:-</u>	Design and Development of Low Power, Low Cost, High-Performance Gas Sensor Array for Exhale Breath analyzer: A Point-of-care based Non-Invasive Early Detection and Prognosis of Cardiovascular Diseases.	
03	JRF-03/2023	M.Sc in Physics, Space Physics, Space Science, Space Science and Technology or related areas. OR B.Tech in Engineering Physics or related areas. <u>Desirable:</u> Experience in computational work and exposure to high level programming languages such as Python preferred.	Max Planck Partner Group for Galactic Star Formation	01

Sl. No	Category No.	Educational Qualification / Skill	Project Title	No. of positions
04	JRF-04/2023	M.E / M.Tech or equivalent in Mechanical Engineering / Aerospace Engineering / Chemical Engineering or equivalent with GATE score.  <u>Desirable:</u> 1. Experience in research work of experimental nature as part of their master's project. 2. Experience in any programming language	Development of a fast response TDLAS temperature sensor for high-temperature applications.	
<b>Junior Project Fellow</b>				
05	JPF-01/2023	M.Sc in Chemistry or related areas.	Nano structured high performance anode materials for high power, higher safety and fast charging Li-ion battery	01
06	JPF-02/2023	M.Sc in Chemistry or related areas.	Graphene nano platelets incorporated zinc rich epoxy coating for corrosion protection of steel hardware	01
07	JPF-03/2023	M.Sc in Chemistry or related areas.	Development of Graphene based anticorrosion coating for stainless steel bipolar plates of PEM fuel cells	01
08	JPF-04/2023	M.Sc in Chemistry or related areas.	Improved silicon graphene based composite as anode materials for lithium battery cells and exploring the possibility of other battery technologies	01
09	JPF-05/2023	B.E / B.Tech in Electronics and Telecommunication / Instrumentation Engineering / Power Electronics or related areas.	Near and field diagnostics NET	01
10	JPF-06/2023	BE / B.Tech in Mechanical Engineering / Aerospace Engineering / Electrical Engineering or related areas with knowledge in Orbital Mechanics.	Interference analysis and co-existing studies between GSO and NGSO satellite systems	01
<b>Senior Project Fellow</b>				
11	SPF-01/2023	M.Tech in RF and Microwave Engineering or related areas.  <u>Desirable:</u> Knowledge of simulation software like HFSS, CST Microwave studio.	Development of Magneto Dielectric Substrate Metamaterial based L-band Antenna	01

Sl. No	Category No.	Educational Qualification / Skill	Project Title	No. of positions
<b>Junior/ Senior Project Fellow</b>				
12	JPF-07/2023	M.Sc / M.S in Physics / Material Science / Nanoscience / Nanotechnology or related areas. OR	High-Q dielectric thin films with tunability in Microwave frequencies for space applications	01
	SPF-02/2023	M.Tech in Physics / Material Science / Nanoscience / Nanotechnology or related areas.  <u>Desirable:</u> Experience in deposition and characterization of materials.		
13	JPF-08/2023	M.Sc / M.S in Physics / Material Science / Nanoscience / Nanotechnology or related areas OR	Development of Yttrium Iron Garnet (YIG) thin films for space applications and Dielectric Test setup for ceramics at high Electric field and temperatures.	01
	SPF-03/2023	M.Tech in Physics / Material Science / Nanoscience / Nanotechnology or related areas.  <u>Desirable:</u> Experience in deposition and characterization of materials.		
14	JPF-09/2023	B.Tech in Electronics / Optoelectronics / Solid State Technology / Nanotechnology or related areas. OR	Design and construction of MEMS-based portable Seismocardiogram for on-board Cardiac health monitoring of Astronauts	01
	SPF-04/2023	M.Tech in Electronics / Optoelectronics / Solid State Technology / Nanotechnology or related areas.  <u>Desirable:</u> Clean-room experience and hands-on experience in silicon process technology, such as Lithography and silicon wafer processing.		
15	JPF-10/2023	M.Sc Physics / M.Sc Electronics / B.Tech Engineering Physics / B.S-M.S in Physics or related areas. OR	Near and field diagnostics NET	01
	SPF-05/2023	Master of Technology in any area with B.Tech Engineering Physics as basic degree.		

Sl. No	Category No.	Educational Qualification / Skill	Project Title	No. of positions
<b>Junior/ Senior Project Fellow</b>				
16	JPF-11/2023	M.Sc Physics / M.Sc Electronics / B.Tech Engineering Physics / B.S-M.S in Physics or related areas.	Lifetime predication of HET liner using simulations	01
	SPF-06/2023	OR Master of Technology in any area with B.Tech Engineering Physics as basic degree.		

**Age limit: 35 years as on 25.01.2023**

**Remuneration per month consolidated**

Category code	Monthly Remuneration
JRF-01-03/2023	Rs. 31,000/- + HRA
JRF-04/2023	Rs. 25,000/-
JPF-01 -11/2023	Rs. 23,000/-
SPF-01 -06/2023	Rs 25,300/-

**General Conditions / Instructions:**

1. Only Indian Nationals need apply.
2. All degrees mentioned above should be in FIRST CLASS. Candidates should possess the required qualification as on the last date for receipt of application.
3. Candidates are advised to upload the relevant certificates such as mark sheets, Degree/ PG/PhD certificate, experience certificate etc., at the time of registering the online application.
4. The tenure of the JRF/JPF/SPF is for a period of One year or co-terminus with the project whichever is earlier. Extendable on performance and need basis subject to availability of funds.
5. The Institute reserves the right to terminate the appointment at any time before completion of the tenure / project, if it so decides.
6. Application received online only will be considered for processing, under any circumstances.
7. The applicants will not be allowed to make any changes in the profile registration once submitted. Hence, utmost care should be taken by the candidates while filling the profile.
8. Facility for **online submission** of application will be **available from January 06, 2023 to January 25, 2023 (upto 1700hrs).**

9. A 'No Objection Certificate' from the employer concerned is required in respect of those applicants who are employed under Central/State Government/Public Sector Undertakings/ Autonomous Bodies.
10. Only short listed candidates will be called for written test/interview as the case may be. Candidates possessing advertised qualification, skill, experience etc., alone will be allowed to attend the written test/interview.
11. Government strives to have a work force which reflects gender balance and women candidates are encouraged to apply.
12. Candidates who are selected for the positions have to join IIST by the specified date.
13. JRF/JPF/SPF is not entitled for hostel facility at IIST.
14. Candidates are advised to visit the IIST website <https://www.iist.ac.in/career/3> for any updates on latest status of their application.
15. No interim correspondence will be entertained.
16. Canvassing in any form will be a disqualification.

**Advt. No. IIST/Admn/RMT/01/2023 dated 05.01.2023**