

Application Guideline for academic staff Position  
at the Institute of Space and Astronautical Science, JAXA

1.	Position	Assistant Professor
2.	Number of Positions	One
3.	Affiliation	Department of Space Flight Systems, Institute of Space and Astronautical Science (ISAS)
4.	Work Location	JAXA Sagami-hara Campus (3-1-1 Yoshinodai, Chuo-ku, Sagami-hara, Kanagawa, JAPAN) <Scope of changes> Locations determined by the agency in the case of changes due to personnel transfers, organizational restructuring, etc. When telework is performed according to the organization's rules, its location is also included.
5.	Starting Date	April 1 <sup>st</sup> , 2025 or the earliest possible date thereafter
6.	Term of Employment	Non fixed term
7.	Term of Probationary	6 months from the date of hire
8.	Job Duties	Academic research on space flight systems including composite materials for next-generation spacecraft
9.	Detailed Job Duties and Desired Candidate Profile	<p>ISAS/JAXA is promoting a wide variety of space science activities including space astronomy using satellites in orbit around the Earth and exploration of asteroids and planets in the solar system. To enhance the performance and quality of future space missions, structural materials will play essential role in reducing weight and improving performance of space systems including satellites, probes, space telescopes and propulsion systems of reusable launch vehicles. In constructing space telescopes, the development of methodologies to predict the fluctuations in the material properties of lightweight CFRP will reduce error factors during design and manufacturing to improve their performance. The application of new lightweight materials such as low thermal expansion ceramic composites and/or low thermal expansion ceramics will realize astronomical satellites with lighter weight and more accurate optical systems than before. In addition, the application of lightweight, heat-resistant composites such as ceramic matrix composites, will directly contribute to improve the performance of future air-breathing engines. Furthermore, in order to realize novel lightweight space flight systems using lightweight structural composite materials with fewer resources, it is necessary to use them in high load ranges with tolerating internal damages.</p> <p>Based on this recognition, ISAS has been promoting the research on prediction of property changes and life span during long-term use of low-thermal expansion materials, such as CFRP and/or ceramic composites, and on new lightweight structural materials to promote advanced space science missions. In addition, the research activities on prediction of damage initiation and progress, and the associated changes in the thermal and mechanical properties of materials, as well as prediction of their life, have been carried out in ISAS, in order to establish design methodology for lightweight structures with damage tolerant usage of composite materials. In order to continue cutting-edge space science missions, it is necessary to advance the application of lightweight structural materials.</p> <p>Responsibilities include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• To promote research on the thermal and mechanical properties and life of lightweight structural materials, such as damage-tolerant composites, and/or new lightweight structural materials for future space science missions.</li> </ul>

		<ul style="list-style-type: none"> <li>To actively contribute to ongoing exploration missions and space science missions as an expert of composite materials.</li> </ul> <p>Furthermore, we are looking for a highly motivated candidate who can carry out his/her academic research in a project-oriented style, in collaboration with university researchers under the inter-university framework. Active participation to various JAXA projects and R&amp;Ds to demonstrate his/her academic expertise is also expected. Human resource development for future space development and utilization is anticipated as natural outcome of the above-mentioned activities. We also hope for human resource who can promote joint research in collaboration with related companies as needed.</p> <p>To fulfill these duties, the successful candidate of the Assistant Professor needs to satisfy, at minimum, the following conditions.</p> <ul style="list-style-type: none"> <li>Have research or practical experience in composites and have achievements that are highly evaluated worldwide in the field of lightweight or heat-resistant composite materials.</li> <li>Have the ability and willingness to promote research and to provide leadership on structural materials, particularly composite materials to future space science missions.</li> <li>Have the ability and willingness to actively engage in the activities required for space science project execution, not limited to his/her specialized field.</li> <li>Be capable of teaching and directing graduate students.</li> </ul> <p>&lt;Scope of changes&gt; Scope of job defined by the agency.</p>
10.	Goal Setting	<p>The assistant professor is expected to become an indispensable researcher for space science in general, by making important contributions to the promotion of various projects without being confined to their own areas of expertise. Based on these expectations, the candidate is required to state their own goal in the document “(5) Future research plan”.</p> <p>The Research Director of Space Flight Systems will discuss their career path together, considering the overall achievements during about 5 years after being employed.</p>
11.	Benefits and Conditions	<p>(1) Salary Salary will be determined under the provision of JAXA wage rules and regulations, considering qualifications and experience.</p> <p>(2) Working Hours In principle, the Discretionary Labor System for Professional Work shall be applied. Working hours are basically from 9:30-17:45. The break time shall be 45minutes if the working hours per day exceed 6 hours, and 1 hour if the working hours exceed 8 hours. Regardless of the above, those who apply the Discretionary Labor System for Professional Work shall have deemed working hours of 7 hours and 45 minutes per day. Overtime work may be required depending on the work situation.</p> <p>(3) Holidays Saturdays and Sundays, National Holidays, New Year Holidays (December 29th - January 3rd), others when JAXA deems it necessary, etc.</p> <p>(4) Vacations and Leave</p>

		<p>Paid Annual leave, WLB (Work Life Balance) annual leave, celebration or condolence leave, maternity leave, child-care leave, care leave, nursing leave, etc.</p> <p>(5) Retirement Age Retirement age is 65. (The mandatory retirement age for FY2023 and FY2024 will be 64 years old, and there will be a re-employment system until the age of 65 is reached.)</p> <p>(6) Accommodations Depending on business necessity, individual situation, and vacancy status, either single or family accommodation will be provided, or a housing allowance will be issued according to the agency's regulations. However, the period of availability for the same housing is limited to 7 years..</p> <p>(7) Social insurance Several types of social insurances (health insurance, pension plan, etc.) will be provided.</p>
12.	Research Funding	<p>Research funding is determined according to the budget situation of each year.</p> <p>*FY2024: Professor; ¥800,000, Associate professor; ¥800,000, Assistant professor; ¥400,000</p>
13.	Required Qualifications	PhD degree in Engineering or relevant fields
14.	Application Documents	<p>(1) Curriculum vitae</p> <p>(2) Research history and summary</p> <p>(3) List of published papers (with DOIs)</p> <p>(4) List of awarded research funds through competition. Specify a type of funds, amount, and a role (e.g. principal investigator/co-investigator)</p> <p>(5) Future research plan (including contribution to projects and ambitions for educational activities)</p> <p>(6) Declaration of past criminal penalties, administrative penalties, disciplinary measures, etc., including sexual harassment, assault and violence (Disclose all penalties on freeform, can also be stated in (1) CV.)</p> <p>(7) Names, affiliations and contact details (phone numbers and email addresses) of two individuals who can provide opinion about the candidate.</p> <p>(8) Copies of major research papers (up to 5) published in peer-reviewed or refereed academic journals</p>
15.	Submission	<p>Applicants are required to apply via the following website. Please access the application form at the following URL: <a href="https://isas-appli-form.jaxa.jp/forms1/1724641529">https://isas-appli-form.jaxa.jp/forms1/1724641529</a></p> <p>(Notes)</p> <ul style="list-style-type: none"> <li>• All the documents must be submitted in pdf format.</li> <li>• Note that documents (2) to (6) should be merged into one PDF file.</li> <li>• Application delivered in person or by mail shall not be accepted.</li> </ul>
16.	Application Deadline	<p>November 6<sup>th</sup>,2024, noon (JST)</p> <p>•Data entry and submission of all the required documents must be completed by this deadline through the website.</p>
17.	Screening Method	Screening will be conducted by the Advisory Council for Research and Management of ISAS, JAXA. The council will conduct a document screening, and interview those who have passed the document screening. This process is subject to change.
18.	Contact Information	<p>Director of Department of Space Flight Systems Prof. Shujiro Sawai</p>

		<p>Email: sawai.shujiro [at]jaxa.jp *</p> <p>For inquiries regarding application submission as in Section 15:  Human Resources Section / Management and Integration Department  E-mail: ISAS-JINJI [at]ml.jaxa.jp *</p> <p>*Please replace [at] in the email address with @.</p>
19.	Name of Recruiter	Japan Aerospace Exploration Agency (JAXA)
20.	Others	<p>(1) Information submitted in your application documents will not be used for any purpose other than the employment selection. Once the selection process is complete, we will securely dispose of all application documents and personal information, except for those submitted by the successful candidate.</p> <p>(2) In order to properly implement security export control based on Japan's Foreign Exchange and Foreign Exchange Act, it is necessary to submit a declaration pertaining to "Specific category" regulated by the act. Depending on the contents of the declaration, necessary adjustment for appropriate duties such as scope of secondary careers could be made.</p> <p>(3) Please also check the notes on JAXA website* before applying.  * <a href="https://global.jaxa.jp/about/employ/index.html">https://global.jaxa.jp/about/employ/index.html</a></p>