

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

1.	Position	Professor
2.	Number of Positions	One
3.	Affiliation	Department of Space Flight Systems, Institute of Space and Astronautical Science (ISAS)
4.	Work Location	JAXA Sagamihara Campus (3-1-1 Yoshinodai, Chuo-ku, Sagamihara, Kanagawa, JAPAN)
5.	Starting Date	May 1st, 2023, or the earliest possible date thereafter
6.	Term of Employment	Non fixed term
7.	Term of Probationary	First 6 months from the date of hire
8.	Job	Academic research in the engineering field related to aerodynamics for the space science including planetary exploration
9.	Job Details and Responsibilities	<p>ISAS/JAXA is intensively conducting research on space exploration concepts such as landing or sample return missions targeting planets with atmosphere such as Mars, in addition to study on space transport systems that travel back and forth between Earth and space. In order to promote these studies, knowledge of aerodynamics considering a wide range of flight conditions including the planetary atmosphere is required to meet various requirements including entry into the atmosphere of Earth or planets, and flight and glide in the atmospheric environment of those celestial bodies.</p> <p>ISAS/JAXA has realized the collection of samples from small bodies by direct re-entry from the interplanetary space by “Hayabusa” and “Hayabusa2”. Considering landing exploration on celestial bodies with atmosphere and sample returns from the surface of the celestial bodies in the future, it is recognized that the importance of predicting and analyzing aerodynamic characteristics in a wider condition than ever and reflecting them in their aerodynamic designs will increase more and more in planetary exploration.</p> <p>Based on the above recognition, in addition to the study relating the reusable sounding rocket, ISAS is promoting development of a re-entry capsule to the earth at “MMX” project, research on the technology for entering the atmosphere of Mars using inflatable mechanism, and the study on flight system in the atmosphere of Mars for future missions. While numerical analysis is effective for dealing with aerodynamic characteristics in a wide range of flight conditions, experimental approaches such as wind tunnel tests</p>

and flight tests are indispensable for improving the accuracy of numerical analysis and evaluating the aerodynamic characteristics. Therefore, in the field of aerodynamics, effort to achieve aerodynamic design by complementary using the analytical approach and the experimental approach is necessary.

Responsibilities include (but are not limited to):

- To promote research in aerodynamics that will contribute to future space science missions.
- To strongly lead project teams in multiple space science exploration projects and space transport system developments from the standpoint of an aerodynamic researcher.

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&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.

To fulfill these duties, the successful candidate of the Professor needs to satisfy, at minimum, the following conditions.

- Have research and practical experience in the field of aerodynamics in either or both numerical analysis and experimentation in a wide range of flight conditions, and having achievements that are highly evaluated both in Japan and worldwide.
- Demonstrate the leadership in the field of aerodynamics and fusing the team of numerical analysis and experimental expertise, to conduct research on aerodynamic design in a wide range of flight conditions that contribute to sample returns missions from celestial bodies with atmosphere, in addition to reusable transportation system development that travels back and forth between the Earth and space.
- Have a strong motivation to actively contribute to activities necessary to carry out space science projects, regardless of his/her area of expertise.

		<ul style="list-style-type: none"> ● Be capable of teaching and directing graduate students.
10.	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 9:30am-17:45pm. 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 a deemed working time of 7 hours and 30minutes 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) Vacation Annual vacation, 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 63.</p> <p>(6) Lodgings Lodgings suitable for a family or a single occupant may be provided under the provision of JAXA in consideration of the nature of the work. (Lodging term is limited to 7 years.) Alternatively, an allowance for lodging shall be paid.</p> <p>(7) Social insurance Social insurances (health insurance, pension plan, etc.) will be provided in full.</p>
11.	Research Funding	<p>Research funding is determined according to the budget situation of each year.</p> <p>*FY2021: Professor; ¥800,000, Associate professor; ¥800,000, Assistant professor; ¥400,000</p>
12.	Required Qualifications	PhD degree in Engineering or relevant fields

13.	Application Documents	<p>(1) Curriculum vitae</p> <p>(2) Research career</p> <p>(3) Summary of previous research and Outline of future research plan (Including contribution to projects and ambitions for educational activities)</p> <p>(4) List of published papers (with impact factors or citation number)</p> <p>(5) List of awarded research funds through competition (type of funds, amount, principal investigator, or co-investigator)</p> <p>(6) Contact information of two references (names, affiliation, telephone numbers, and e-mail addresses for a direct inquiry from JAXA).</p> <p>(7) Photocopies of major research papers (up to 5) published in peer-reviewed or refereed academic journals</p> <p>*If you are a resident of the European Economic Area (the EU zone), you are required to submit the following document as well.</p> <p>(8) Consent form for handling personal information based on GDPR (Form NO.1)</p> <p>Download the form from the website listed in “14. Submission”</p>
14.	Submission	<p>Applicants are required to apply via the following website. Please access the application form at the following URL:</p> <p>https://isas-appli-form.jaxa.jp/forms1/1660545572</p> <p>(Notes)</p> <ol style="list-style-type: none"> 1. All the files shall be in pdf format. 2. Note that documents (2) to (5) should be merged into one pdf file. 3. Application delivered in person or by mail shall not be accepted.
15.	Application Deadline	<p>November, 7th, 2022, noon (JST)</p> <p>This deadline is for inputting the website and submitting all application documents.</p>
16.	Screening	<p>Screening will be conducted by the Advisory Council for Research* and Management of ISAS, JAXA.</p> <p>The council will conduct a document screening, and interview those who have passed the document screening. This process is subject to change.</p> <p>*https://www.isas.jaxa.jp/en/about/organization/committee.html</p>
17.	Contact Information	<p>Director of Department of Space Flight Systems</p> <p>Prof. Shujiro Sawai</p> <p>Email: sawai.shujiro[at]jaxa.jp *</p> <p>For inquiries regarding Application Submission in Section 14:</p>

		<p>Management and Integration Department Human Resources Section E-mail: ISAS-JINJI [at]ml.jaxa.jp *</p> <p>*Please replace [at] in the email address with @.</p>
18.	Name of Recruiter	Japan Aerospace Exploration Agency (JAXA)
19.	Others	<p>(1) Information submitted in your application documents will not be used for any purpose other than the selection process and for contacting you with necessary notices in connection with the 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) Please also check the notes on JAXA HP* before applying. * https://global.jaxa.jp/about/employ/index.html</p>