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

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<th>1. Position</th>
<th>Professor</th>
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<td>2. Number of Positions</td>
<td>One</td>
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<tr>
<td>3. Affiliation</td>
<td>Department of Space Flight Systems, Institute of Space and Astronautical Science (ISAS)</td>
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<td>4. Work Location</td>
<td>JAXA Sagamihara Campus (3-1-1 Yoshinodai, Chuo-ku, Sagamihara, Kanagawa, JAPAN)</td>
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<td>5. Starting Date</td>
<td>November, 1st, 2022 or the earliest possible date thereafter</td>
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<td>6. Term of Employment</td>
<td>Non fixed term</td>
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<td>7. Term of Probationary</td>
<td>First 6 months from the date of hire</td>
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<td>8. Job</td>
<td>Academic research on space flight systems including high performance propulsion systems represented by electric propulsion</td>
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<td>9. Job Details and Responsibilities</td>
<td>ISAS/JAXA is promoting the exploration of asteroids and gravitational bodies as one of the world's leading centers for solar system exploration. In order to achieve first-class scientific results in solar system exploration, it is essential to plan excellent missions and to conduct research and development on spacecraft systems to realize the missions. Japan has been the first country in the world to realize a small but highly navigable deep space explorer using ion engines onboard the asteroid explorers &quot;Hayabusa&quot; and &quot;Hayabusa2&quot;. In the future, it is expected that the importance of a high specific impulse propulsion system with moderate thrust level will further increase in deep space exploration missions. It is also obvious that high-performance propulsion systems, mainly electric propulsion systems, will be one of the key technologies for the inter-orbit network that is currently being studied vigorously. Based on the above recognition, ISAS has been working on the improvement of the performance and the longevity of the high specific impulse electric propulsion, and is planning to implement it in the flyby exploration by the Demonstration and Experiment of Space Technology for INterplanetary voYage with Phaethon fLyby and dUst Science (DESTINY+) project. Further efforts and research in the field of high-performance propulsion are required for the future exploration of more distant small bodies such as asteroids in the main belt, Jupiter's Trojan group, and comets, and for the realization of inter-orbit networks.</td>
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Responsibilities include (but are not limited to):

- To promote research in propulsion engineering that will contribute to future space science.
- To strongly lead project teams in multiple solar system exploration and scientific satellite projects from the standpoint of a propulsion 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 high specific impulse propulsion systems, such as electric propulsion systems, and having achievements that are highly evaluated both in Japan and worldwide.
- Demonstrate the leadership in the field of high-performance propulsion for future space science missions through conducting research beyond conventional electric propulsion technology.
- Have a strong motivation to actively contribute to activities necessary to carry out space science projects, regardless of his/her area of expertise.
- Be capable of teaching and directing graduate students.

### 10. Conditions

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<td>(1)</td>
<td>Salary</td>
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<td>Salary will be determined under the provision of JAXA wage rules and regulations, considering qualifications and experience.</td>
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<td>(2)</td>
<td>Working Hours</td>
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<td>In principle, The Discretionary Labor System for Professional Work shall be applied.</td>
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Working hours are basically from 9:30-17:45. The break time shall be 45 minutes 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 30 minutes per day.

Overtime work may be required depending on the work situation.

(3) Holidays
   Saturdays and Sundays, National Holidays, New Year Holidays (December 29th - January 3rd), others when JAXA deems it necessary, etc.

(4) Vacation
   Annual vacation, WLB (Work Life Balance) annual leave, celebration or condolence leave, maternity leave, child-care leave, care leave, nursing leave, etc.

(5) Retirement age
   Retirement age is 63.

(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.

(7) Social insurance
   Social insurances (health insurance, pension plan, etc.) will be provided in full.

11. Research Funding
   Research funding is determined according to the budget situation of each year.
   *FY2021: Professor: ¥800,000, Associate professor: ¥800,000, Assistant professor: ¥400,000

12. Required Qualifications
   PhD degree in Engineering

13. Application Documents
   (1) Curriculum vitae
   (2) Research career
   (3) Summary of previous research and Outline of future research plan
      (Including contribution to projects and ambitions for educational activities)
   (4) List of published papers (with impact factors or citation number)
   (5) List of awarded research funds through competition (type of funds, amount, principal investigator, or co-investigator)
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<td>(6)</td>
<td>Contact information of two references (names, affiliation, telephone numbers, and e-mail addresses for a direct inquiry from JAXA). If you are recommended by others, please provide two letters of reference.</td>
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<td>(7)</td>
<td>Photocopies of major research papers (up to 5) published in peer-reviewed or refereed academic journals</td>
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<td>If you are a resident of the European Economic Area (the EU zone), you are required to submit the following document as well.</td>
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<td>(8)</td>
<td>Consent form for handling personal information based on GDPR (Form NO.1)</td>
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<td>Download the form from the website listed in “14. Submission”</td>
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| 14. Submission | Applicants are required to apply via the following website. Please access the application form at the following URL:  
https://isas-appli-form.jaxa.jp/forms1/1648800246  |
| (Notes) | 1. All the files shall be in pdf format.  
2. Note that documents (2) to (5) should be merged into one pdf file.  
3. If the applicant is recommended by others, we will request referee(s) to directly upload their letters of reference to the website. (This request will be automatically sent to the email addresses of referee(s) specified by the applicant. If the applicant is recommended by oneself, this request will not be automatically sent.)  
4. Application delivered in person or by mail shall not be accepted. |
| 15. Application Deadline | June, 6th, 2022, noon (JST)  
This deadline is for inputting the website and submitting all application documents (including reference letters by the referees if you are recommended by others). |
| 16. Screening | 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.  
*https://www.isas.jaxa.jp/en/about/organization/committee.html |
| 17. Contact Information | Director of Department of Space Flight Systems  
Prof. Shujiro Sawai  
Email: sawai.shujiro[at]jaxa.jp *  
For inquiries regarding Application Submission in Section 14:  
Management and Integration Department Human Resources Section |
|   |   | E-mail: ISAS-JINJI [at]ml.jaxa.jp *
|   |   | *Please replace [at] in the email address with @.
| 18. | Name of Recruiter | Japan Aerospace Exploration Agency (JAXA) |
| 19. | Others | (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.
(2) Please also check the notes on JAXA HP* before applying.

* https://global.jaxa.jp/about/employ/index.html