

Job Announcement for an Associate Professor at the Institute of Space and  
Astronautical Science, the Japan Aerospace Exploration Agency

The Japan Aerospace Space Exploration Agency (JAXA) is seeking to recruit an associate professor as described below. We widely call for recommendations and applications.

1. Title and Number of Position(s)

One Associate Professor

2. Department

Department of Spacecraft Engineering, Institute of Space and Astronautical Science (ISAS)

3. Summary of Position (Duties and Required Abilities)

One of the major objectives of spacecraft engineering is to expand the capability of spacecraft, and the development of semiconductor devices tolerant of space radiation is one of the most important subjects in realizing that objective. ISAS has been conducting basic research, based on both theoretical and experimental methods, on the physical characteristics and circuit responses of semiconductor devices in a space radiation environment, which are different from those experienced in terrestrial applications. Based on these research activities, ISAS has also been developing high-performance semiconductor devices with a high radiation tolerance. We will continue developing semiconductor devices for space applications with long-term and strategic plans, and promote advanced academic research in the field of basic theories of semiconductor devices grounded in principles of radiation effects.

Last year, JAXA started development of the next-generation Micro-Processing Unit (MPU) for spacecraft using Silicon on Insulator (SOI) technology as a project under JAXA's Research and Development Directorate, and ISAS is supporting this project from the aspect of basic theories of semiconductor devices. ISAS needs a researcher who has the leadership abilities to steer all activities related to the development of electronic devices for space applications in Japan with a vision beyond the current SOI-MPU project, based on her/his own research activities and insights into electronic devices for space applications.

We hereby call for applicants for the position of associate professor at ISAS who will conduct basic research on semiconductor devices for space applications and will lead the overall development activities on electronic devices for space applications in Japan.

We will assign, at minimum, the following duties to the successful candidate:

- Conduct academic research on theories and measurement methods concerning radiation effects on semiconductor devices or electronic parts for space applications based on her/his own ideas;
- Support the ongoing project of developing the next generation SOI-MPU from the aspects of basic theories of semiconductor devices and lead all activities related to the development of electronic devices for space applications in Japan with long-term and strategic plans, based on her/his own research activities and insights into electronic devices for space applications; and
- Promote collaboration with researchers from other universities and engage in teaching and directing graduate students, based on the understanding that ISAS/JAXA acts as an inter-university research institute.

To fulfill these duties, the successful candidate needs to satisfy, at minimum, the following conditions:

- Have research records that are well-recognized worldwide in both the theoretical and experimental aspects of semiconductor engineering for space applications, and have the capability to lead the research community based on her/his research experience;
- Have a vision as regards the future of semiconductor technologies for space applications; and
- Be capable of teaching and directing graduate students.

#### 4. Terms and Conditions

(1) Salary will be determined under the provision of JAXA wage rules and regulations, taking into account ability and experience.

(2) Working days: Monday – Friday, except Japanese national holidays, year-end and New-Year holidays, paid vacation, summer vacation, celebration or condolence leave, maternity leave, child-care leave, care leave, nursing leave, volunteer activities, etc.

(3) Office hours: 9:30-17:45, in principle, with a recess from 12:15 to 13:00 (however, a discretionary labor system is applied).

(4) Overtime work: may be required (however, a discretionary labor system is applied, and working hours per day are regarded as 7.5 hours).

(5) Duty location: JAXA Sagami-hara campus (ISAS), Kanagawa, Japan.

(6) Employment status: Full-time/Retirement age is 63.

(7) 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.

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

## 5. Eligibility

PhD degree is required.

## 6. Commencement of Assignment

At the earliest possible date after selection. Some coordination might be needed according to JAXA's budget situation.

## 7. Application Documents

(1) Curriculum vitae

(2) Research career

(3) Summary of previous research

(4) List of research achievements

(5) Outline of future research plan (including contribution to projects and ambitions for educational activities)

(6) List of awarded research funds through competition (type of funds, amount, principal investigator or co-investigator)

(7) Contact information of two referees (names, addresses, telephone numbers, and e-mail addresses for a direct inquiry from JAXA). If you are recommended by others, please provide two letters of recommendation.

(8) Photocopies of major research papers (less than five) published in refereed academic journals

## 8. Submission

Submit the application through the following website

<https://isas-appli-form.jaxa.jp/forms1/1522919277>

When submitting the documents, please follow the instructions given on the website.

All of the files to be uploaded shall be in pdf format. Note that documents (2) to (6) should be merged into one pdf file.

If the applicant is recommended by others, we will request recommender(s) to directly upload their letters of recommendation to the website. (This request will be automatically sent to the email addresses of recommender(s) specified by the applicant.)

Application delivered in person or by mail shall not be accepted.

## 9. Application Deadline

Monday, July 2, 2018, 9:30 (JST).

Applies to both web input and all necessary files, including letters of recommendation for recommended applicants.

Please access the above website and check how to submit necessary documents for

application (including letters of recommendation if the applicant is recommended by others) as soon as possible. If application is made too close to the deadline, it will be difficult for recommenders to submit a letter of recommendation. Please be careful with regard to this.

10. Contact at the Institute of Space and Astronautical Science, JAXA  
Institute of Space and Astronautical Science, JAXA  
Department of Spacecraft Engineering  
Prof. Takahiro Yamada  
Director  
Tel: +81-50-3362-4632 E-mail: [yamada.takahiro@jaxa.jp](mailto:yamada.takahiro@jaxa.jp)

For inquiries regarding Application Submission in Section 8:  
Management and Integration Department  
Human Resources Section  
Fax: +81-42-759-8440 E-mail: [ISAS-JINJI@ml.jaxa.jp](mailto:ISAS-JINJI@ml.jaxa.jp)

#### 11. Other Remarks

Screening will be conducted by the Advisory Council for Research and Management of ISAS, JAXA. This job announcement comes into effect when there are three applicants or more. If there are fewer than three applications, the announcement will be made again.

Traveling expenses necessary for the examination and selection shall be borne at the applicant's own expense. ISAS/JAXA actively welcomes female applicants.

#### <Handling of Personal Information>

The personal information provided to ISAS/JAXA will be used and handled solely for the selection purpose. ISAS/JAXA will discard all personal information of unsuccessful applicants after the selection.