

December 9, 2022

### Recruitment for Assistant Professor Position

Institute of Fluid Science (IFS), Tohoku University invites applications for an Assistant Professor position. Preference will be given to highly motivated candidates, with an outstanding academic background.

Kaoru Maruta  
Director  
Institute of Fluid Science, Tohoku University

#### 1. Division, Laboratory, Number of Positions and Job Title

Division	Laboratory	Number of Positions and Job Title
Creative Flow Research Division	Spacecraft Thermal and Fluids Systems Laboratory	One position open for Assistant Professor

#### 2. Job Description

We promote research and education for the clarification of thermo-fluid phenomena related to next-generation spacecraft and their control technologies, and its application to new exploration missions using fluid dynamics, such as aircraft.

#### 3. Required Qualifications and Conditions

Candidates must have a doctoral degree upon arrival at the post and a distinguished achievement in the above-mentioned specialized field.

#### 4. Starting Date

April 1, 2023

(Term: Eight years. Evaluation will be conducted to promote to a full/associate professor in the final year of the eight years term. If not promoted, renewal of contract will be permitted for another 2 years at most.)

#### 5. Application Deadline

Application documents must arrive by Friday, January 13, 2023, at 17:00 (JST).

## 6. Requested Documents

### I. Curriculum Vitae

Please be sure to include your current postal address and e-mail address.

### II. List of research accomplishments\*

- 1: Peer-reviewed journal papers (Specify the latest impact factor of the journals, as much as possible.)
- 2: Review papers (same as above)
- 3: Peer-reviewed full-length proceedings
- 4: Books, chapters
- 5: Invited lectures (international and domestic conferences) (only the lectures presented by the applicant)
- 6: Presentations at international conferences other than invited lectures (Indicate the presenter.)
- 7: Experience in organizing international/domestic conferences
- 8: Patent applications/registrations
- 9: Background in international/domestic research collaboration, and achievements of overseas research activities
- 10: Awards received
- 11: Competitive research funding obtained
- 12: Other outstanding achievements

\* All the above documents should be prepared on separate pages. All the names of co-authors for No. 1-No. 6 in II above and all the names of joint inventors for No. 8 in II above should be specified, and the name of the applicant underlined. Also, the roles of the applicant for No.1-No. 8 in II above should be mentioned. The number of citations for No.1-No. 6 in II above should be written and the source of the number of citations should be indicated.

III. Offprints of 5 papers of research achievements from No.1-No. 4 in II above. (Electronic files are acceptable.)

IV. Outline of your research achievements selected in III above (should be around 300 words each).

V. Statement describing the applicant's future research and education plan at IFS. (Please include past educational or other experiences in subjects related to mechanical engineering and describe them in concrete terms.)

VI. Contact information of reference(s): name, name of institution, position title, postal address, telephone number and email address. (about 3 people.)

All documents should be prepared in A4 format in separate PDF files. Please put all the files into suitable media (CD-R, SD memory card, USB flash memory, etc.) and send it by registered mail. Please write “Application Documents for Assistant Professor of Spacecraft Thermal and Fluids Systems Laboratory” in red on the envelope.

Submission by a secure web transfer service and e-mail is also acceptable. Please write “Application Documents for Assistant Professor of Spacecraft Thermal and Fluids Systems Laboratory” in the subject line of the e-mail. An acknowledgment of receipt of the application will be sent to the applicant. If you do not receive it, please contact us.

During the screening process, we may ask you to submit some additional documents. Application documents are not returnable.

If an interview is required, an online interview is possible.

## 7. Contact

Director Kaoru Maruta

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For more information on the Institute of Fluid Science, please visit:

<http://www.ifs.tohoku.ac.jp/>

## References

Creative Flow Research Division aims for the creation of new functions under flow dynamics of the physical properties of fluids and the flow system, aspiring to science and technology innovation and application. Through the clarification of our understanding of the flow in electromagnetic fluid, biological flow dynamics, and aerospace, we contribute to the development of this academic field and to the establishment of innovative engineering technology. Also, as cooperative courses of the Mechanical Engineering course of the Graduate School of Engineering, Department of Mechanical and Aerospace Engineering of the School of Engineering at Tohoku University, faculty members are in charge of lectures related to mechanical engineering.

Through this recruitment, we are planning to promote the following research.

Division (Laboratory)	Research Contents
Creative Flow Research Division* (Spacecraft Thermal and Fluids Systems Laboratory)	<p>We aim to clarify the thermo-fluid phenomena related to next-generation spacecraft and their control technologies, and its application to new exploration missions using fluid dynamics, such as aircraft.</p> <ol style="list-style-type: none"><li>1. Research on aircraft flight and control in diverse planetary atmospheres</li><li>2. Research on flight stability and thermal protection design of next-generation spacecraft</li><li>3. Research on advanced fluid measurement technology in extreme environments</li></ol>

\* Creative Flow Research Division consists of eight laboratories: Electromagnetic Functional Flow Dynamics Laboratory, Intelligent Fluid Control Systems Laboratory, Integrated Simulation Biomedical Engineering Laboratory, Biomedical Flow Dynamics Laboratory, Aerospace Fluid Engineering Laboratory, Spacecraft Thermal and Fluids Systems Laboratory, Design of Structure and Flow in the Earth Laboratory, and Fluids Engineering with Data Science Laboratory.

## Diversity, Equity and Inclusion (DEI)

- Tohoku University promotes activities to increase Diversity, Equity and Inclusion (DEI) and encourages people of varied talents from all backgrounds to apply for positions at the university.

Tohoku University's website about the DEI Declaration is here:  
<http://tumug.tohoku.ac.jp/dei/>

- Pursuant to Article 8 of the Act on Securing, Etc. of Equal Opportunity and Treatment between Men and Women in Employment, Tohoku University shall, as a measure for increasing the presence of women among the academic staff, prioritize the hiring of women deemed qualified for each job opening, based on impartial evaluation.
- Tohoku University has the largest on-campus childcare system of all Japanese national universities. This network comprises three nurseries: Kawauchi Keyaki Nursery school (capacity: 22) and Aobayama Midori Nursery school (116), both open to all university employees, as well as Hoshinoko Nursery school (120), which is open to employees working on Seiryō Campus. In addition, Tohoku University Hospital runs a childcare room for mildly ill and convalescent children which is available to all university employees.
- See the following website for information on these and other programs that Tohoku University runs to assist work-life balance, to support researchers, and to advance gender equality, including measures to promote childcare leave among male employees.

Tohoku University Center for Gender Equality Promotion website:

<http://www.tumug.tohoku.ac.jp/>

Human Resources and Planning Department website:

<https://c.bureau.tohoku.ac.jp/jinji-top/external/a-4-kosodate/>

## Notice

This recruitment is an English translation of the Japanese version. The content of the recruitment is based on the Japanese version.