

November 8, 2023

Recruitment for Associate Professor Position

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

Kaoru Maruta
Director
Institute of Fluid Science, Tohoku University

1. Division, Number of Positions and Job Title

Division	Number of Positions and Job Title
Nanoscale Flow Research Division	One open position, Associate Professor

2. Job Description

We promote research and education to elucidate the characteristics of nanoscale mass transport phenomena and their mechanisms, and to control nanoscale phenomena with the aim of developing next-generation energy devices.

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 1st, 2024

(Term: Ten years without extension)

5. Application Deadline

Application documents must arrive by Friday, January 5th, 2024, at 10 a.m., JST.

6. Documents required for application

I. Curriculum Vitae

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

(If you are the Leading Initiative for Excellent Young Researchers (including under application), please state it.)

II. List of research accomplishments*

1: Peer-reviewed journal papers (Specify the latest impact factor of the journals.)

2: Review papers (same as above)

3: Peer-reviewed full-length proceedings papers

4: Books, chapters

5: Invited lectures at international and domestic conferences (only the lectures presented by the applicant)

6: Presentations at international conferences, other than the above 5 (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 at present and in the past

12: Other outstanding achievements

* Each of the documents above should be prepared on separate sheets. All the names of co-authors for Items 1 through 6 in II above and all the names of joint inventors for Item 8 in II above should be specified. Underline the applicant's name for Items 1 through 6, and 8. In addition, the roles of the applicant for Items 1 through 8 in II above should be described. The number of citations for Items 1 through 6 in II above should be indicated with the source of them. Items 1 through 12 should be contained in a single PDF file.

III. Offprints of five papers of research achievements from Items 1 through 4 in II above. (PDF files)

IV. Outline of the research achievements selected in III above (approximately 300 words each).

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

VI. Contact information of references: name, name of institution, position title, postal address, telephone number, and e-mail address. (about three people)

Each document of I through VI should be prepared in the A4 format in separate PDF files. Place all the files into suitable media (CD-R, SD memory card, USB flash drive, etc.) and send

them by registered postal mail. Please indicate “Application documents for associate professor of Nanoscale Flow Research Division” in red on the envelope.

Submission through a secure file transfer service and e-mail is also acceptable. Indicate “Application documents for associate professor of Nanoscale Flow Research Division” in the subject line of the E-mail. An acknowledgment of the receipt of the application is sent to the applicant. If the applicant does not receive it, please contact us.

The applicant may be asked to submit additional documents during the screening process. Application documents are not returned.

If an interview is required, it can be conducted online.

7. Inquiries and submissions should be sent to:

Kaoru Maruta, Professor
Director
Institute of Fluid Science, Tohoku University
2-1-1, Katahira, Aoba-ku, Sendai, 980-8577, Japan
Phone: +81-22-217-5300, Fax: +81-22-217-5311
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For more information of the Institute of Fluid Science, please visit <http://www.ifs.tohoku.ac.jp/>

References

The Nanoscale Flow Research Division aims to develop fundamental science related to nano- and micro-scale phenomena and the physical properties of thermofluids, and create new research fields. By elucidating electron- and molecular-scale mass, momentum, and energy transport mechanisms and discovering nanoscale flow characteristics in living organisms and devices, the division promotes the deepening and development of science and the creation of innovative nano-thermofluid devices and medical technologies.

In addition, as the cooperative courses in 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	Research Contents
Nanoscale Flow Research Division*	<p>Research to elucidate the characteristics of nanoscale mass transport phenomena and their mechanisms, and to control nanoscale phenomena with the aim of developing next-generation energy devices.</p> <ol style="list-style-type: none"><li data-bbox="603 1155 1445 1234">1. Molecular analysis of mass transport properties in nanoscale structures within polymer and bio-materials.<li data-bbox="603 1290 1445 1368">2. Nanoscale analysis and control of mass transport phenomena that determines the performance of next-generation energy devices.

* The Nanoscale Flow Research Division consists of six laboratories: Non-Equilibrium Molecular Gas Flow Laboratory, Molecular Heat Transfer Laboratory, Quantum Nanoscale Flow Systems Laboratory, Biological Nanoscale Reactive Flow Laboratory, Molecular Composite Flow Laboratory, and Nanoscale Flow Application Laboratory. At the time of appointment, a new laboratory will be inaugurated.

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:

<https://dei.tohoku.ac.jp/vision/about/>

- 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 published 'Tohoku University - Live as Who You Are -Guidelines for Gender and Sexual Diversity' to provide explanations and details of how those at the university should respond with respect to diverse sexuality. The purpose of the guidelines is to create an environment in which all students, faculty, and staff respect diverse sexuality in their academic, research, and professional activities.

Please see the Center for Diversity, Equity, and Inclusion, Tohoku University website:

https://dei.tohoku.ac.jp/wp-content/uploads/2023/10/EN_GuideLine.pdf

- 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 at Tohoku University Hospital. 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.

Center for Diversity, Equity, and Inclusion, Tohoku University website:

<https://dei.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.