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 applicants, 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
Global Collaborative Research and Education Center for Integrated Flow Science (IFS-GCORE)	Multi-Physics Design Laboratory	One position open for Associate Professor

2. Job Description

Aiming at development of a new interdisciplinary research field named as "multiphysics design" spanning across the fluid science, material science, design engineering, and computer science, the successful applicant will study multiphysics problems in aircraft design and other areas by advanced methods including data-driven science, which leads to a next-generation mobility engineering field.

3. Required Qualifications and Conditions

Applicants 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 10:00 a.m. (JST).

6. Requested Documents

I. Curriculum Vitae

Please be sure to include your current postal address and e-mail address.
(If you are the Leading Initiative for Excellent Young Researchers (including underapplication), 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
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

* All the above documents should be prepared on separate sheets. 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 with its source. No. 1-No. 12 should be contained in a single PDF file.

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 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 e-mail 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 Associate Professor of Multi-Physics Design Laboratory” in red on the envelope. Submission by an adequate web transfer service and e-mail is also acceptable. Please write “Application Documents for Associate Professor of Multi-Physics Design 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
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
E-mail: director [at] ifs.tohoku.ac.jp (replace [at] with @)

For more information on the Institute of Fluid Science, please visit:
http://www.ifs.tohoku.ac.jp/

References

The Global Collaborative Research and Education Center for Integrated Flow Science (IFS-GCORE) will conduct research on the academic foundation of integrated flow science for its deployment in diverse application fields, including green nanotechnology and fuel ammonia. We will promote international joint research and education with overseas centers in France, Taiwan, Saudi Arabia, and the U.S., and aim to become an alliance-type international base that creates social impact. 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
Global Collaborative Research and Education Center for Integrated Flow Science* (Multi-Physics Design Laboratory)	Aiming at development of a new interdisciplinary research field named as “multiphysics design” spanning across the fluid science, material science, design engineering, and computer science, the successful applicant will study multiphysics problems in aircraft design and other areas by advanced methods including data-driven science, which leads to a next-generation mobility engineering field. 1. Development of data-driven method for fluid-structure interaction problems which involve multiple physics such as fluid science and material science 2. Development and application of numerical methods for high-fidelity aerodynamic simulation 3. Research related to fluid-structure interaction problems such as optimal design of CFRP aircrafts

* Global Collaborative Research and Education Center for Integrated Flow Science (IFS-GCORE) consists of twelve laboratories: Green Nanotechnology Laboratory High Speed Reacting Flow Laboratory, Energy Resources Geomechanics Laboratory, Energy Dynamics Laboratory, Multiphase Flow Energy Laboratory, Multi-Physics Design Laboratory, Mechanical Systems Evaluation Laboratory, Advanced Materials and Fluids Design Laboratory, Flow Dynamics Laboratory, Novel Battery Nanoscale Flow Concurrent Laboratory, Integrated Flow Science and Technology Laboratory, Advanced Integrated Flow 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:
  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.