

June 10, 2022

Recruitment for Professor Position

Institute of Fluid Science (IFS), Tohoku University invites applications for a 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
Innovative Energy Research Center (To be reorganized into a new center.)	Green Nanotechnology Laboratory	One position open for Professor

2. Job Description

We promote research, education, and international industry-academia-government collaboration related to innovative green nanotechnology that contribute to the realization of a smart society through the securing of safe and low-cost energy and the efficient use of energy.

3. Required Qualifications and Conditions

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

4. Starting Date

October 1, 2022

(Permanent employment [Retirement age depends on the rules and regulations of Tohoku University.])

5. Application Deadline

Application documents must arrive by Wednesday, August 10, 2022, 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.)
- 2: Review papers (same as above)
- 3: Peer-reviewed full-length proceedings papers
- 4: Books, chapters
- 5: Invited lectures (international and domestic conferences) (only the lectures presented by the applicant)
- 6: Presentations at international conferences other than the above invitation 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. Moreover, 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 should indicate the source of the number of citations.

III. Electronic files in PDF format of 5 papers of research achievements from No.1-No. 4 in II above.

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 email address. (about 3 persons.)

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 drive, etc.) and send it by registered mail. Please write “Application Documents for Professor of Green Nanotechnology Laboratory” in red on the envelope.

Submission by an adequate web transfer service or e-mail is also acceptable. Please write “Application Documents for Professor of Green Nanotechnology 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 the applicant to submit some additional documents. Application documents will not be returned.

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

The objective of the Innovative Energy Research Center is to realize a highly efficient, economical, and innovative energy utilization system through research and development related to conversion of unrealized energy, which has been only slightly possible using conventional technologies, through improved storage, transportation, and management of energy in basic energy and new energy fields based on fluid science through the collaboration of various studies on energy. Furthermore, 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)	Details of Research
Innovative Energy Research Center* (Green Nanotechnology Laboratory)	<p>We promote research and education related to innovative green nanotechnology that contribute to the realization of the smart society through the securing of safe and low-cost energy and the efficient use of energy. We also promote international industry-academia-government collaboration centering on the Joint Laboratory of the National Yang Ming Chiao Tung University and the Tohoku University.</p> <ol style="list-style-type: none">1. Research on super-low-power consumption and high-speed/optical device system2. Research on high-efficiency energy (electricity generation, electricity storage, electricity saving) device system3. Research on surface physical chemistry control using nanostructure and research on new nanomaterial and nanodevice4. Interdisciplinary research of bio- and nanotechnology and the application to nano and atom-scale devices5. Research on plasma/beam material processing and the green nanotechnology using plasma

*The Innovative Energy Research Center consists of eight laboratories: Green Nanotechnology Laboratory, Energy Resources Geomechanics Laboratory, Energy Dynamics Laboratory, System Energy Maintenance Laboratory, Multiphase Flow

Energy Laboratory, Energy Science and Technology Laboratory, Advanced Energy Engineering Laboratory, and Novel Battery Nanoscale Flow Concurrent Laboratory.

In October 2022, the Innovative Energy Research Center will be reorganized and a new center will be established for further globalization.

Gender Equality

- 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/>
- 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.