



Tohoku University Global COE program:  
“World Center of Education and Research for Trans-disciplinary Flow Dynamics”

## Student Recruit: International Internship Program 2012 Application Guideline

The purpose of the hosting of doctoral course students for International Internship Program by receiving them from overseas is to support acceleration of self development of the students by experiencing different cultures and research environment in early days, development of their flow dynamics research works, and eventually, to contribute to the establishment of Tohoku University Global COE Program “World Center of Education and Research for Trans-disciplinary Flow Dynamics” (hereafter the GCOE).

The program, by receiving students from overseas research institutions/universities for a short period of time (1 to 6 months) at Tohoku University, or by dispatching Tohoku University students to overseas institutions/universities for short period of time (1 to 6 months), offers the participating students opportunities to experience different culture, to meet eminent researchers and educationists, and, to work for his/her own research works complimentary to his/her background research work with proper supervisory support of the visiting university/institution. The GCOE is expecting the participating students in this program will grow in future as world class leaders with strong competencies in various fields.

The program aims to encourage the program participating students to work in the joint research works between Tohoku University and foreign universities, furthering the development of his/her researcher’s network and overseas research bases.

### 1. Qualification of the receiving students at Tohoku University

- Doctoral course students at universities/institutions in foreign countries/districts with close connections/ relationships with professors of Tohoku University having multi-stage network arrangement as follows:
  - Universities that have a liaison office with Tohoku University. (\*\*)
  - Departments that have concluded an International Academic Exchange Agreement with Institute of Fluid Science (IFS), Tohoku University. (\*\*\*)

- Universities that have concluded an International Exchange Agreement with Tohoku University, coordinated by Institute of Fluid Science (IFS), Tohoku University. (\*\*\*)
  - Universities and Institutions that are currently conducting joint research projects with Institute of Fluid Science, Tohoku University (IFS).
  - Universities/institutions that have close connections/relationships with program members of the GCOE (\*) and other researchers of Tohoku University.
- Doctoral students who are participating in this International Internship Program should first be approved and recommended either by a member of the GCOE, by Division of Mechanical Engineering, Graduate School of Engineering, Tohoku University, or, by Institute of Fluid Science, Tohoku University.
  - Students should have sufficient communication skills.
  - Students are expected to contribute to the development of the International Internship Program of the GCOE with injections of different views and perspectives of international environment.

2. Number of interns to be accepted a year by the GCOE at Tohoku University.

Approximately 8

3. Length of Time Period of International Internship Program for each Student.

Generally, more than 1 month and less than 6 months from April 1, 2012 through January 31, 2013.

You may need to obtain a valid visa to enter Japan. Please check with relevant authorities.

4. Support Content from the GCOE

Allowable expenses provided by the GCOE for each participating International Internship Student include the followings, 1) , 2) and 3), provided the maximum total provided does not exceed 1,000,000 Japanese yen (within the limits of the budget).

- 1) A round-trip air ticket to Sendai, Japan from your current residential place with the cheapest economy-class rate.

- 2) Actual cost of accommodation (e.g. standard university-owned dormitory arranged by the GCOE)
- 3) Living allowance (up to 2,000 Japanese yen per day).

#### 5. Obligations of International Internship Students

- The Students must be covered by overseas travel insurance (including personal liability insurance) at their own cost during the period of internship. This program is not responsible for accidents or illness which may occur during the stay of the Students.
- The students must submit report papers of their works in the specified format designated by the GCOE. The reports thus submitted to the GCOE may be released in public at a later date.
- The students must attend and report the results of their work at the GCOE Research Exchange Meetings.
- The Students are encouraged to report the research results during the course of the International Internship Program at international conferences, or utilize the research results as a part of their doctoral thesis.

#### 6. Selection and Guideline

A completed application form, curriculum vitae and recommendation letters by your supervisors and an accepting supervisor at Tohoku University are necessary to be submitted to the GCOE. Awarded students shall be notified promptly by E-mail from the GCOE Office, after the reviewing process is completed. Awarded Students for the International Internship Program (hereafter the Awarded Students) are expected to perform the followings during the period:

- 1) The Awarded Students contribute to the formation of the GCOE.
- 2) The Awarded Students perform his/her own research works in the Internship period.
- 3) The Awarded Students participate in International Joint Research Programs carried out by cooperation between Tohoku University and the Partner universities/institutions. It is desirable that the Awarded Students participate in joint research programs carried out by supervisors of the host-side and overseas researchers.

The GCOE especially recommends the students to apply for this program, who are currently involved in the Joint International Research works with Tohoku University, by

participating through the GCOE Multi Stage Network.

## 7. Application Procedure

Applicant is requested to submit the documents mentioned below ;

- **application form** (the form can be downloaded from the website depicted below)
- **Curriculum vitae**
- **Two recommendation letters, one from the current supervisor and the other one from the accepting supervisor at Tohoku University,**

and send the documents by postal mail to the following address.

(Please mark “GCOE Application Form Inside” on the envelope.)

<http://www.ifs.tohoku.ac.jp/gcoe/eng/application/index.html>

Send to:

Tohoku University Global COE “World Center of Education and Research for  
Trans-disciplinary Flow Dynamics”

Katahira 2-1-1, Aoba-ku, Sendai, Miyagi-ken 980-8577 Japan

Telephone/Fax: +81-22-217-5301

E-mail: [office@gcoe.ifs.tohoku.ac.jp](mailto:office@gcoe.ifs.tohoku.ac.jp)

### Deadline:

Two (2) months prior to the planned departure date.

Recruitment may be closed upon the maximum numbers of International Internship Program students for the year should be fulfilled.

\* Program Members of Tohoku University Global COE Program “World Center of Education and Research for Trans-disciplinary Flow Dynamics”

| Name              | Affiliated Department, position title   |
|-------------------|---|
| Shigenao MARUYAMA | Institute of Fluid Science, Prof.   |
| Toshiyuki TAKAGI  | Institute of Fluid Science, Prof.   |
| Masami NAKANO     | Institute of Fluid Science, Prof.   |
| Satoru YAMAMOTO   | Department of Computer and Mathematical Sciences,<br>Graduate School of Information Sciences, Prof. |
| Jun ISHIMOTO      | Institute of Fluid Science, Prof.   |
| Makoto OHTA       | Institute of Fluid Science, Assoc. Prof.  |

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|---------------------|--|
| Kaoru MARUTA        | Institute of Fluid Science, Prof.  |
| Goro MASUYA         | Department of Aerospace Engineering,<br>Graduate School of Engineering, Prof.                  |
| Hideya NISHIYAMA    | Institute of Fluid Science, Prof.  |
| Hideaki KOBAYASHI   | Institute of Fluid Science, Prof.  |
| Hideyuki AOKI       | Department of Chemical Engineering,<br>Graduate School of Engineering, Prof.                   |
| Taku OHARA          | Institute of Fluid Science, Prof.  |
| Michio TOKUYAMA     | WPI Research Center : Advanced Institute for Materials<br>Research, Prof.                      |
| Seiji SAMUKAWA      | Institute of Fluid Science, Prof.  |
| Tetsuya KODAMA      | Graduate School of Biomedical Engineering, Prof.   |
| Koji AMEZAWA        | Institute of Multidisciplinary Research for Advanced Materials,<br>Prof.                       |
| Takashi TOKUMASU    | Institute of Fluid Science, Assoc. Prof.   |
| Shigeru OBAYASHI    | Institute of Fluid Science, Prof.  |
| Yu FUKUNISHI        | Department of Mechanical Systems and Design,<br>Graduate School of Engineering, Prof.          |
| Keisuke ASAI        | Department of Aerospace Engineering,<br>Graduate School of Engineering, Prof.                  |
| Keisuke SAWADA      | Department of Aerospace Engineering,<br>Graduate School of Engineering, Prof.                  |
| Takatoshi ITO       | Institute of Fluid Science, Prof.  |
| Hidetoshi HASHIZUME | Department of Quantum Science and Energy Engineering,<br>Graduate School of Engineering, Prof. |

\*\* Oversea liaison office:

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| 1) The University of New South Wales                             |
| 2) The University of Sydney                                      |
| 3) Moscow State University                                       |
| 4) KTH Royal Institute of Technology                             |
| 5) Syracuse University   |
| 6) Korea Advanced Institute of Science and Technology            |
| 7) Institut National des Sciences Appliquées de Lyon (INSA-Lyon) |

\*\*\*International Exchange Agreement

- University-wide agreements

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| Università degli Studi di Roma "La Sapienza" |
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| RWTH Aachen University  |
| University of Science and Technology of China                 |
| Université Pierre Marie Curie (Paris VI)                      |
| Nanjing University  |
| Pohang University of Science and Technology                   |
| National Taiwan University                                    |
| The University of Nottingham                                  |
| Helsinki University of Technology                             |
| The University of Auckland                                    |
| Tampere University of Technology                              |
| Ecoles Centrale Group (Lyon, Paris, Lille, Nantes, Marseille) |
| Novosibirsk State University                                  |
| Pusan National University                                     |
| Xi' an Jiaotong University                                    |
| Beihang University  |
| Siberian Branch of Russia Academy of Science                  |
| Tsinghua University   |
| National University of Singapore, Faculty of Engineering      |
| Jilin University  |
| Nanjing University of Aeronautics and Astronautics            |
| Shanghai Jiao Tong University                                 |

– Departmental agreements

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|---|
| Cranfield University Aerospace  |
| University of Toronto, Institute for Aerospace Studies (UTIAS)  |
| Institute for Fluid Mechanics, University of Karlsruhe(TH)  |
| Research Institute for Technical Physics and Materials Science of the Hungarian Academy of Sciences               |
| Institute of Plasma Physics, Academy of Sciences of the Czech Republic  |
| School of Mechanical and Aerospace Engineering, Nanyang Technological University                                  |
| Electrical Engineering Faculty, Politehnica University of Bucharest   |
| Institute of Theoretical Physics, Chinese Academy of Sciences   |
| Institute of Power Mechanical Engineering and Mechanics Moscow Power Engineering Institute( Technical University) |
| Budapest University of Technology and Economics   |

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| Institute of Physics, Chinese Academy of Sciences                                    |
| Mechanical Engineering Department, Faculty of Engineering, University of Trieste     |
| School of Mechanical Engineering, National Technical University of Athens            |
| National Applied Research Laboratories(NARL), National Nano Device Laboratories(NDL) |
| School of Mechanical Engineering, Sungkyunkwan University                            |
| University of Kentucky, College of Engineering                                       |
| Rice University, George R. Brown School of Engineering                               |
| Semmelweis University, Faculty of Pharmacy   |
| Chang Gung University, College of Engineering  |