



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

2010 Application Guideline for
Special Research Students to study at the Institute for International Advanced
Research and Education, Tohoku University

Tohoku University Global COE Program “World Center of Education and Research for Trans-disciplinary Flow Dynamics” (hereafter the GCOE) provides several kinds of Student Promotion Programs to encourage and support to grow competent graduate students by hiring awarded students as Research Assistant (RA) for certain years of period. Such Student Promotion Programs are listed below :

- International “Takenoko” (Bamboo Shoot) Student Promotion Program
- Program for Special Research Students to study at the Institute for International Advanced Research and Education, Tohoku University
- Special Research Student of International Leading Researcher Hatchery Program
- Senior Research Assistant (SRA) Program
- Double Doctoral Degree Joint Educational Program
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Special Research Students to study at the Institute for International Advanced
Research and Education, Tohoku University

Students who have been recognized as “excellent level” candidates among those who have been awarded as members of the International “Takenoko” (Bamboo Shoot) Student Promotion Program of the GCOE will be eligible to apply for studying at the International Advanced Research and Education, Tohoku University (hereafter the Institute) as Special Research student supported by the GCOE. The content of the supported thus provided by the GCOE is

described in 4. Obligation of the Student & Way to Support below. Through the collaboration with the Institute, the GCOE aims to encourage talented individuals to grow as creative and competitive researchers who can take leadership in various fields in future.

1. Candidates

Candidates must apply first for the International “Takenoko” (Bamboo Shoot) Student Promotion Program. For detailed qualifications, please see 1. Candidates in the Application Guideline of “International “Takenoko” (Bamboo Shoot) Student Promotion Program”

After being selected as a GCOE Special Research Student, the student must take the entrance examination of the doctoral course of the Institute for International Advanced Research and Education, Tohoku University. The entrance examination is conducted in April in the first year of his/her doctoral course. After successfully passing the exam, the student will be awarded as a GCOE Special Research Student at the Institute for International Advanced Research and Education. In a case where a candidate failed to pass the exam at the Institute, the candidate is still eligible to be employed as a Senior Research Assistant during the period of his/her ordinary doctoral course years (and during the period of the GCOE, or up to March 31, 2013).

2. Number of Students Awarded

A few

3. Program Period

- For awarded student who will be admitted into the doctoral course from **October 2010**:
Start from October 1, 2010 through March 31, 2013 (within the period of the GCOE Program)
- For awarded student who will be admitted into the doctoral course from **April 2011**:
Start from April 1, 2011 through March 31, 2013 (within the period of the GCOE Program)

This program period can't be extended further than March 31, 2013, because of the termination of the entire program of The Global COE Program.

4. Obligations of the Student & Way to Support

Obligations;

The Global COE Program supports the awarded student by hiring him/her as a research assistant of Tohoku University. Each research assistant is to work 18 hours a week.

- Awarded students must conduct research works in integrated fields at the Institute.
- Awarded students must submit a research progress report in a form provided by the GCOE at the end of every academic year.
- The progress of each awarded student will be reviewed by several professors at the end of every academic year. Should the review result be not satisfactory, the qualification may be annulled.

Moreover, the Special Research Students are expected to carry supplementary obligations in order to promote research on fluid dynamics. For instances, following obligations will be added in order to promote the GCOE program.

- Minor supplementary duties related to research works at the Institute of Fluid Science, the Graduate School of Engineering (the Department of Aerospace Engineering, the Department of Mechanical Systems and Design, the Department of Quantum Science and Energy Engineering, and the Department of Chemical Engineering), the Department of Biomedical Engineering of the Graduate School of Biomedical Engineering, the Institute of Multidisciplinary Research for Advanced Materials, the New Industry Creation Hatchery Center, and the WPI Research Center: the Advanced Institute for Materials Research (WPI-AIMR).
- Participation in the International Conference on Flow Dynamics (ICFD) hosted by the GCOE.
- Planning and operating of the ICFD “Student sessions
- Presentation at ICFD “Student sessions”
- Presentation at the domestic/international academic conferences more than once a year.

Supports;

Compensation: Each RA receives 2,800yen/hour (Approx.2,400,000yen/year)

Research Fund : Up to 1,500,000yen per year

- Work performance of the special Research Student is to be reviewed at each year end. The Compensation and the Research Fund for the next year may be adjusted depending on the student's performance of the previous year.

5. Selection Criteria

The Graduate Students to be awarded by this program shall be selected from the candidates defined in 1. Candidates in the guideline for International "Takenoko" (Bamboo Shoot) Student Promotion Program, based upon the examination of their respective application form.

Followings are the criteria of the selection of Special Research Students at the Institute supported by the GCOE.

- 1) The research theme should be a theme that contributes to the formation of the World Center of Education and Research for Trans-disciplinary Flow Dynamics (the GCOE).
- 2) Student's grade reports at his/her undergraduate and graduate schools have to be either "very good" or "excellent".
- 3) Presentations and academic articles are to be evaluated by quality.
- 4) The research theme should be situated in a new academic field.
- 5) Academic significance of the research theme is to be reviewed.
- 6) Creativity of the student is to be reviewed.
- 7) Planning capability of the student is to be reviewed.
- 8) Process to generate research theme is to be reviewed.

6. Application Procedure

Required documents;

- (1) Application form for applying for International "Takenoko" (Bamboo Shoot) Student Promotion Program. Each applicant should download and use the application form from the following website and circle the number (3. Special Research Student to study at Institute for International Advanced Research and Education, Tohoku University) in the section.

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

(2) Application form for the “Special Research Student to study at Institute for International Advanced Research and Education, Tohoku University”.

Each applicant should download and use the application form from the following website :

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

(3) Recommendation letter by your current supervisor. (No particular format is requested.)

(4) A list of acquired achievement awards, when that is applicable.

(5) Certificates of grade reports at your undergraduate and graduate schools, which should be issued by respective institutions.

Please send the above-mentioned documents by postal mail to the following address :

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

Mailing Address;

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

Institute of Fluid Science, 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

Application Deadline;

No fixed close date for the application is set. However, it is advisable to submit your application at least two (2) months prior to the day of doctoral course Entrance Examination.

For the entrance examination date, please refer to the website:

<http://www.eng.tohoku.ac.jp/english/admission>

7. Contact

For further information and questions, please contact at the following address:

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

Institute of Fluid Science, 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