



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

2010 Application Guideline for  
International Leading Researcher Hatchery Program

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 Program

International Leading Researcher Hatchery Program

The Global COE Program “World Center of Education and Research for Trans-disciplinary Flow Dynamics” (hereafter the GCOE) recruit research assistants who are talented and ambitious as Senior Research Assistants (hereafter Hatchery SRA) supported by International Leading Hatchery Program. The Hatchery SRA thus recruited will be provided with research fund by the GCOE, and are expected to conduct ambitious research works in most advanced and leading-edge fields. The GCOE provides this program to educate talented researchers to grow as world leaders in various areas of academics,

industries and society.

Successful Hatchery SRAs are encouraged to obtain doctoral degrees in shorter period than ordinary cases.

Another characteristic feature of program is that the Hatchery SRAs are to be reviewed for their annual performances and the progresses made in research works, by plural number of professors, including his/her supervisor.

### 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.

### 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 GCOE Program.

### 4. Obligations of the Student & Way to Support

*Obligations;*

The Global COE Program supports the awarded student by hiring him/her as a Hatchery

SRA of Tohoku University. Each Hatchery SRA is expected to work 23 hours a week during the 1<sup>st</sup> year, and 20 hours a week during the 2<sup>nd</sup> /3<sup>rd</sup> year.

- Awarded students must pursue research based on the research plan submitted.
- Awarded students must submit a research report on a particular form provided by the GCOE at the end of every academic year.
- The research progress of each awarded student will be reviewed by several professors at the end of every academic year. In case the review results are not satisfactory enough, the qualification as Hatchery SRA may be annulled.
- Active participation in the International Conference on Flow Dynamics (ICFD) hosted by the GCOE each year is required for the Hatchery SRA, as follows:
  - Planning and operating the ICFD “Student sessions”.
  - Presentation at ICFD “Student sessions”.
- Presentation at the domestic/international academic conferences more than once a year.
- Conducting research assistance work in order to promote research on Flow Dynamics.
- Minor supplementary duties related to research works carried out 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).

*Supports;*

*Compensation:* During the 1st year : Each Hatchery SRA receives 2,100yen/hour  
(Approx. 194,000yen/month, assuming each SRA works 23hours a week)

During the 2nd / 3rd years : Each SRA receives 2,100yen/hour  
(Approx. 170,000yen/month, assuming each SRA works 20hours a week)

Research Fund : Up to 1,000,000JPyen annually.

- The number of working hours and the amount of compensation may be altered after April 2011.
- Amount of Compensation and Research Fund provided by the GCOE may be altered based upon previous year performance of the Hatchery SRA.

## 5. Selection Process

The Hatchery SRA awarded shall be selected from the candidates defined in 1. Candidates in the guideline of International “Takenoko” (Bamboo Shoot) Student Promotion Program, based upon the examination of their respective application form. General criteria for the selection of awarded students are as follows:

- 1) His/her research subject in the doctoral course should contribute to the activities and formation of the GCOE.
- 2) The research plan submitted by the Hatchery SRA must be concrete enough and high enough in quality, and the student must have the capability to conduct the research based on his/her own initiative.
- 3) Applicants must have shown the potentiality to become an excellent researcher to lead an academic community in the future.
- 4) Grade reports at the undergraduate and graduate schools are to be considered. Student Achievement Awards, which have been acquired by a candidate before, should be considered favorably.
- 5) This program will support students who wish to participate in an international joint research program, or joint research project with overseas universities, especially international joint research within the multistage network of the participating universities of this GCOE program.

## 6. Application Procedure

*Required documents;* As same as for applying the International “Takenoko” (Bamboo Shoot) Student Promotion Program

- (1) Application form 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 (2. Special Research Student of International Researcher Hatchery Program) in the section.  
<http://www.ifs.tohoku.ac.jp/gcoe/eng/application/index.html>
- (2) Recommendation letter by your current supervisor. (No particular format is requested.)
- (3) A list of acquired achievement awards, when that is applicable.
- (4) 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 "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](mailto: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 dates, please refer to the following website:

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

7. Others

Any doctoral course student who will be a self-supporting student upon entering the doctoral course, by either being affiliated to a company (or companies), or, being supported by foreign country government by receiving financial assistance, may not apply for the Hatchery Senior Research Assistant (Hatchery SRA) Program.

8. Contact

For further information and questions, please contact with 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](mailto:office@gcoe.ifs.tohoku.ac.jp)