

Challenges and Achievements in Implementing Programs for International Students at Tokyo Institute of Technology

6th University Administrators Workshop
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Evolution of University Administrators Workshop

Since its establishment in 2006, the University Administrators Workshop has evolved to become a platform of discussion about international research and education among leading universities in Asia.

My original idea as a person who was deeply involved in establishing the workshop was to share common problems among the participants and work together to find the solution.



1st UAW



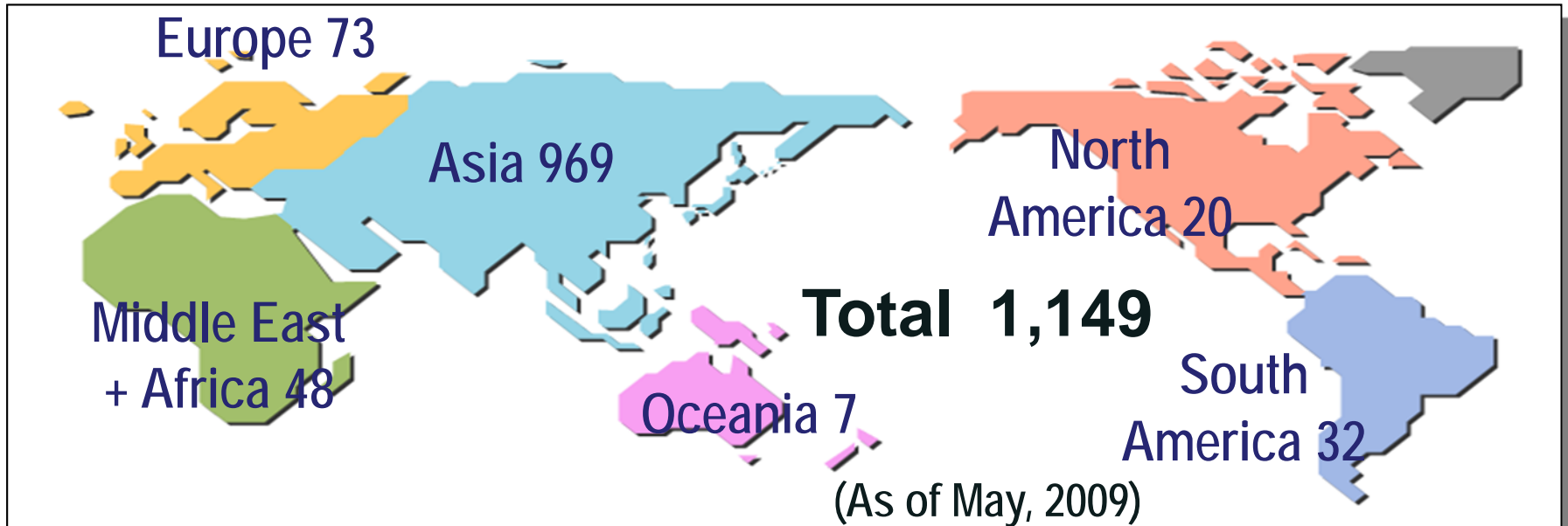
2nd UAW

Overview of Tokyo Institute of Technology

- 1881** Founded as **The Tokyo Vocational School**.
- 1929** Elevated to a degree-conferring university as **Tokyo Kogyo Daigaku (Tokyo Institute of Technology)**
- 2004** Reorganized as an independent administrative institution
“**National University Corporation Tokyo Institute of Technology**”

As of May 1st, 2009	Number (rounded)
Undergraduate Students (International students :included)	4,900 (300)
Graduate Students (international students :included)	5,000 (800)
Faculty	1,100
Administrative Staff	500

International Students



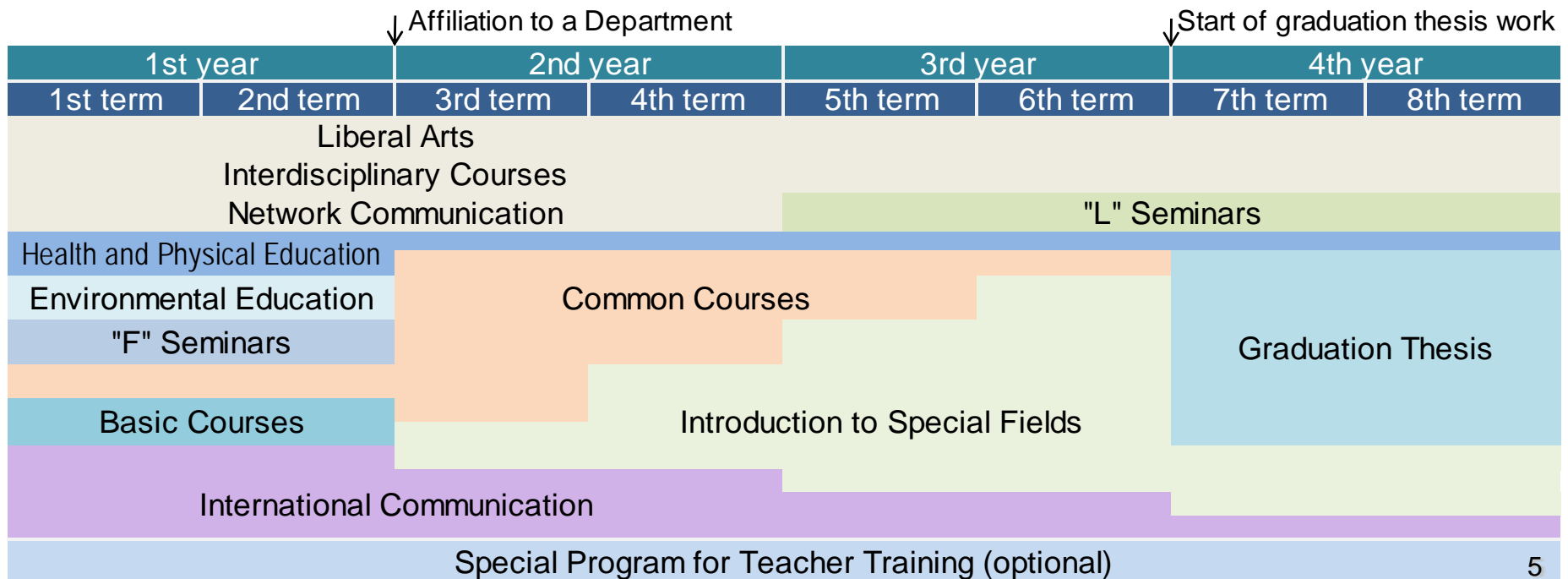
Country	No. of Student
China	433
Korea	143
Vietnam	82
Indonesia	74
Thailand	71
Malaysia	36

Language of mother country	No. of Student
English	35
Non-English	1,114

Only 35 out of 9,900 students are native speaker of English

Undergraduate Schools

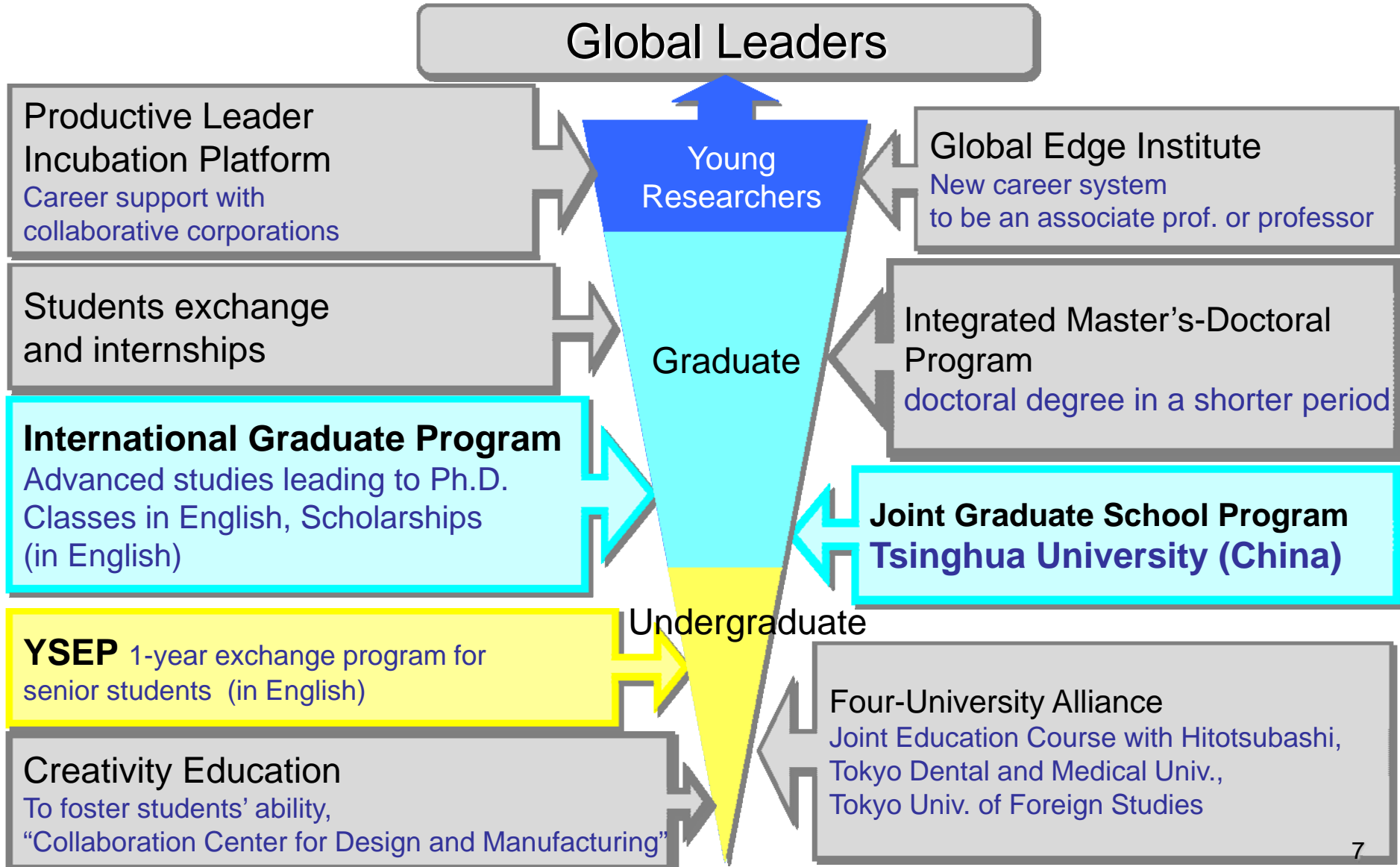
- **School of Science**
- **School of Engineering**
- **School of Bioscience and Biotechnology**



Graduate Schools

- Graduate School of Science and Engineering
 - Graduate School of Bioscience and Biotechnology
 - Interdisciplinary Graduate School of Science and Engineering
 - Graduate School of information Science and Engineering
 - Graduate School of Decision Science and Technology
 - Graduate School of Innovation Management
- (6 graduate schools)

Higher Education -Open to the World-



Young Scientist Exchange Program - YSEP



- English program for undergraduate exchange students from partner universities started in 2000
- 1 year or half year course
- Providing unique opportunity to experience SOTSURON (Research Project) under direct guidance of an experienced professor as well as related subjects and Japanese language
- Students are assigned to laboratories to do research projects with faculty and other senior (graduate) students

Challenges in establishing and implementing the YSEP

Challenges that Tokyo Tech had to overcome

- **Difficulty in creating curriculum in English for undergraduate students**
- **Cooperation of faculty members (which is voluntary one), especially in receiving undergraduate students at their lab**
- **To meet various needs of students from partner universities**
- **To keep attracting able students from partner universities who can catch up with the lab work**

International Graduate Program - IGP

International students

Graduate Schools

Master's program
Doctoral program
Integrated master's and doctoral program

Tokyo Tech-RIKEN International School
Tokyo Tech-Tsinghua Joint Graduate Program

Features

English for the all lectures and seminars

October or April Enrollment

Full Degrees

Enable to apply for **the government scholarships**

Courses offered at IGP

- **Sustainable Engineering Program**
- **Education Program through International Collaboration on Architecture and Urban Design**
- **International Bioscience and Biotechnology Course Program**
- **International Program for Interdisciplinary Science and Engineering**
- **Education Program of Japanese Advanced Information Technology**
- **International Program on Effective Utilization of Technology in Graduate School of Decision Science and Technology**
- **International Program on Earthquake Engineering**

(7 courses)

Challenges in establishing and implementing the IGP

Challenges that Tokyo Tech had to overcome

- **Establishing variety of courses in broad areas of science and engineering**
- **Difficulty in creating curriculum leading to degree (Master and Doctorate) in English**
- **Additional burden for faculty members to create teaching materials in English including those which are posted on OCW**
- **Influence to Japanese students (mostly positive influence, but not always so)**

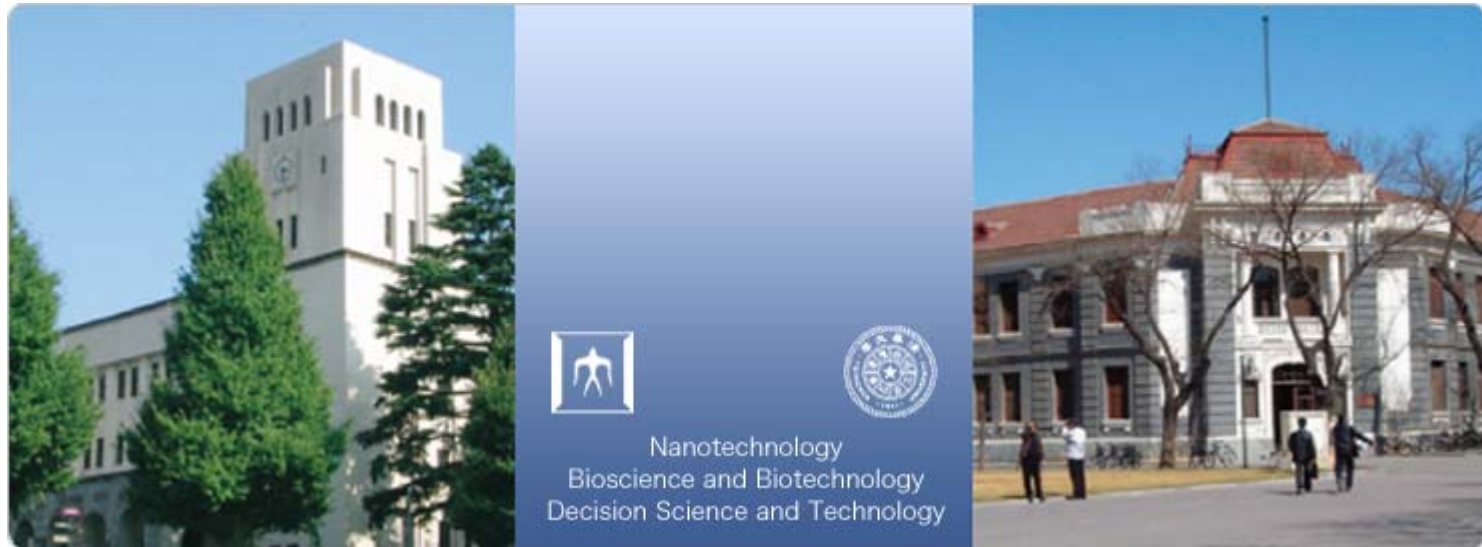
Some of the Achievements of Tokyo Tech in implementing programs in English

- Providing unique opportunities to students especially through lab work
- Establishing close relationship between faculty and students (not only graduate students but also undergraduate students)
- Good stimulus to Japanese students
- Development of teaching methods in international standard

Some reasons why Tokyo Tech is successfully implementing these programs in English

- Shared values among faculty members
- Leadership
- Efforts to answer to the expectation of foreign students and partner universities
- Uniqueness of Tokyo Tech in teaching and research

Tokyo Tech-Tsinghua Joint Graduate Program



- Degree (master and doctorate) program started on September 2004
- Three courses (Nanotechnology, Bioscience and Biotechnology, Decision Science and Technology)
- Teaching language is Japanese (at Tokyo Tech) and Chinese (at Tsinghua). Tokyo Tech dispatch Japanese supervisor to Tsinghua to assist students.
- English language is also important in doing research.

Several important elements in Internationalizing the curriculum

- **Internationalizing the curriculum does not necessarily mean to offer classes in English.**
- **Enhancing the quality of education and research is ultimate goal.**
- **Leadership is very important. But strong will of faculty members is also important.**
- **Mutual understanding with partner universities is necessary to establish programs for exchange students.**
- **Recruiting talented students is a key to success.**

Some points that should be considered in creating English program

- **Can teaching standard and research environment of English program be the same as Japanese (or the other native language's) one?**
- **Will it be attractive to foreign students (as attractive as programs offered by leading universities in the U.S.) ?**
- **Are there strong leadership within the university? Are there common interests among faculty members?**
- **What kind of benefit will the program bring to the university?**
- **Will it be sustainable not only in academic point of view, but also in administrative point of view (including university finance)?**
- **Will the faculty member post the full contents of classes on OCW?**

and many more..

I hope this workshop will be a good opportunity to share our experiences and discuss to find solutions, which will lead to enhance quality of international education of leading universities in Asia.

Thank you very much!

