

Tokyo Institute of Technology International Education Program for Research Advancement: Conceptual Overview

Name of project (Type B-1)

Global Science and Engineering Leader Development Collaborative Network

Project Overview

The project provides start-to-finish education for internationally-oriented students, from university admission to graduation and employment, to become future global science and engineering leaders. Through an established international collaborative network with world-leading science and engineering universities in Europe, the US and Asia, the project offers a research experience-oriented overseas education program for undergraduate students and a group guidance-oriented exchange program for graduate students, a new model of exchange for science and engineering students.

Program objectives and model for developing human resources

Construction of a world-class cooperative network and development of global elite human resources

Based on the results of collaboration with major universities in Asia and Europe, the project has constructed a systematic cooperative network with major US universities which have traditionally pursued exchanges individually, and is working toward developing global elite human resources – researchers, technicians, businesspersons, international institution staff, and others – who are active on the world stage.

Content of the initiative

Initiatives to foster internationality in Tokyo Institute of Technology students

As initiatives that spans the course from university admission to the awarding of a degree, the project engages in (1) activities to enhance awareness among high school students; (2) development of an international liberal arts education program; (3) development of a research-oriented summer program ; (4) development of the Joint Educational program (group guidance-oriented exchange program); and (5) development of a support system for international careers.

Summer program-focused educational program and graduate school group guidance program

The above (3) research-oriented summer program consists of short-term research projects, lecture-based coursework on common themes, and coursework in specialty fields in English under the name Tokyo Tech International Research Opportunity Program (TiROP), with undergraduate and Master's course students joining a laboratory for the summer and fall terms onward. The above (4) Joint Educational Program consists of research activities in partner universities for a fixed period, on research themes jointly set by the Tokyo Institute of Technology and partner universities.

Formation of a framework for inter-university exchange with assurance of quality

Basic approach to the assurance of quality

The basic approach of the project is to construct a system for certification that allows participating students to effectively achieve satisfying results in coursework, with partner universities maintaining each other's respective quality assurance systems.

Guidance and advice through Study and Research Plans

For each student, academic advisors in universities on both sides maintain communication and, by exchanging Study and Research Plans/Record, provide guidance and advice regarding curriculum studies and research both before and during study abroad period, and after returning to the home university.

Summer Program student presentation



Making educational content visible and communicating results

Web-based provision of information and development of outstanding human resources

In the implementation of the program, the Institute has established a unique website associated with the existing Tokyo Institute of Technology English website and partner universities' websites, providing information to a wide demographic community extending beyond participating students. Moreover, the use of Study and Research Plans/Record, as well as grade management with strong commonality, are presented in a form that can be referenced by other universities.

Preparations to support the exchange of outgoing Japanese and incoming foreign students

Preparations to support the outgoing exchange of Japanese students

The project has established an English prep course to boost the language skills of students wishing to study abroad. It also academically advises students through the appointment of study abroad advisors at the partner universities. During study abroad period, the project offers consultation on studies and everyday living through means such as email, and offers advice through career advisors.

Support structure for the incoming exchange of foreign students

In addition to posting program content on its website, the project is working toward the smooth acceptance of foreign students through close communication with partner universities. During students' studies in Japan, the project appoints Tokyo Institute of Technology students in related fields as tutors, and provides advice from career advisors and 24-hour counseling.

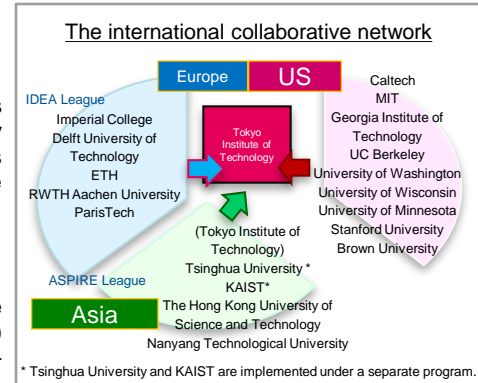
Student mobility in exchange programs

Outgoing Japanese students

The project sent 11 students to several of the 16 partner universities in 2012 and plans to annually send one student to each partner university from 2013 onwards, under the framework of either the summer program or the Joint Educational Program.

Incoming foreign students

The project accepted 17 students in 2012 and will continue to annually accept one student from each of the 16 partner universities, under the framework of either the summer program or the Joint Educational Program.



	2011	2012	2013	2014	2015
Outgoing students	n/a	11	17	17	17
Incoming students	n/a	17	17	17	17

2012 : Actual number exchanged / 2013 onward: Projected number