International Networks of Tokyo Institute of Technology

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Tokyo Institute of Technology (Tokyo Tech) is the best science and technology university in Japan. For more than 130years, Tokyo Tech's expertise in technology has been a driving force for change in our society. We place great emphasis on scientific collaboration in education and research with international institutions. We currently have more than 100academic exchange agreements with various universities from over 30 countries and are members of various international networks. Through our international agreements and networks we have more than 1200 international students from no fewer than 70 countries, totaling approximately 13% of the Tokyo Tech student body, one of the highest proportions in Japan. Tokyo Tech is striving to create an even more international environment, where more and more excellent students from all over the world can gather together for education and research and where an increasing number of Tokyo Tech students will go abroad to study. Every year around 40 students go abroad and study at partner universities based on our tuition waiver agreement programs.

There are two types of education for globally active students, "online" and "face-to-face." In our TAIST program, an international joint master's degree graduate program, which was established by Tokyo Tech in cooperation with leading Thai universities and the National Science and Technology Development Agency, we utilize online lectures. "Online" presents an easy and convenient way for communicating with remote students at a low cost. However, Tokyo Tech places more emphasis on face-to-face education, because a real experience, even for a short-term exchange, encourages students to participate in a longer study abroad which significantly contributes to global collaboration. In recent years, Japanese society has been losing out on global activities because the number of young students who go abroad to study has been decreasing. Tokyo Tech has long made efforts to develop international networks to help its students embrace globalization. We have several new programs to encourage this face-to-face type of globalization through international networks.

In 2009, Tokyo Tech proposed to establish a consortium of "Asian Science and Technology Pioneering Institutes of Research and Education" (ASPIRE) League with the aim of forming a hub for innovation in Asia through the advancement of science and technology and the development of human resources, thereby contributing to the realization of a sustainable world. The ASPIRE Forum is held annually and consists of a symposium, a student workshop, and a meeting of the vice presidents. Researchers from the member universities give presentations at the symposium. The ASPIRE grant and satellite laboratory are provided by Tokyo Tech for collaborative research. Fostering the young talent who will be able to tackle important issues in today's global society is one of the League's objectives. In pursuit of this common goal, member universities are encouraged to provide educational opportunities to the students of other member universities. Exchanging students under the scheme of summer programs is one example of the League's collaborative efforts in education. In addition, the ASPIRE League collaborates with the IDEA League, a network of leading universities of technology and science in Europe through various programs for students.

In 2012, Tokyo Tech established another far-reaching international network. We launched the Tokyo Institute of Technology International Education and Research (TIER)

Program, supported by Japan's Ministry of Education, Culture, Sports, Science and Technology. TIER is Tokyo Tech's new initiative and has the aims of promoting international educational exchange and cultivating world-class leaders. Tokyo Tech has garnered the cooperation of 18 world class universities in Asia, Europe and the United States in order to offer two individual programs within TIER, the "Tokyo Institute of Technology Research Opportunities Program (TiROP)" and the "TKT CAMPUS Asia Consortium," which provide excellent students from different countries the opportunity to collaborate with each other and our own students and faculty members at Tokyo Tech. The collaborative research and educational activities range from undergraduate student exchanges for pursuing individual research topics to joint supervisory exchange programs for graduate students. The program is unique in that it brings together numerous students from multiple cultural backgrounds for an intensive period of communication and cooperation, which they can then extend into a period of individual research under the guidance of a Tokyo Tech faculty member.

The third "face-to-face" network is based in school-to-school collaborations with our Graduate School of Engineering, the biggest graduate school at Tokyo Tech. It is the Asia-Oceania Top University League on Engineering (AOTULE) established in 2007 by the call of Tokyo Tech. The AOTULE is a regional league consisting of engineering faculties, staff, and students from eleven premier engineering and technological universities. The AOTULE promotes inter-university cooperation through joint programs including an annual Dean's meeting, a staff meeting, and a multi-disciplinary student conference. It also organizes short-term student exchanges and aims to broaden participating faculty, staff, and students' perspectives through best practice sharing, research collaborations, and cross-cultural activities. A table of member universities in each of the aforementioned consortia can be found below.

Member Universities of Each Consortium		
Europe	Asia/Oceania	U.S.
Imperial College London △ ETH Zurich ● △ ParisTech ● △ RWTH Aahen ● △ TU Delft ● △ ○ ASPIRE League ● IDEA League △ TIER ∗ AOTULE	KAIST ○ △ ∗ Tsinghua university ○ △ ∗ Hong Kong University of Science & Technology ○ △ ∗ Nanyang Technological University ○ △ ∗ National Taiwan University ∗ University of Malaya ∗ Chulalongkorn University ∗ Bandung Institute of Technology ∗ University of Melbourne ∗ University of Auckland ∗	Brown △ Caltech △ Georgia Tech △ MIT △ Stanford △ UC Berkeley △ University of Minnesota △ University of Washington △ University of Wisconsin △

Finally, since his appointment as Tokyo Tech President in October 2012, Professor Yoshinao Mishima has been leading Tokyo Tech's educational reforms and spearheading the internationalization of the Institute on several fronts. Tokyo Tech recognizes the fact that building international networks leads to the expansion of international exchanges in education and research and contributes to the creation of globally competitive engineers with the scientific and technological know-how, communication skills, and international awareness to lead global efforts and contribute solutions to some of the world's most urgent problems.

Through this increase in international networks, Tokyo Tech aims to raise the percentage of our students who study abroad, and we would eventually like all Tokyo Tech students to have an overseas experience. As further motivation to our students, U.S. Ambassador to Japan, John Roos, spoke on campus in October 2012 and in July 2013 and we also welcomed United States

Secretary of State, John Kerry, on April 15, 2013. These events contributed to the international atmosphere at Tokyo Tech.

We believe that face-to-face communication in international environments helps our students gain the education and skills necessary to make globally-aware contributions to the world. Tokyo Tech seeks to expand and continue to engage in our collaborative activities working with our international networks.