



Research Highlight

Nano-technology for high-speed radiation sensors



Radiation sensors are used in various fields of science and industry. Recent enhanced capability of radiation sources and expanded uses of these devices have raised the demand for high-performance detectors, and Professor Keisuke ASAI and his team at the Department of Applied Chemistry, Chemical Engineering and Biomolecular Engineering of the School of Engineering at Tohoku University are engaged in research in this field. They are developing radiation sensors based on photon emission upon impinging radiation, i.e., scintillation, and radiation-induced changes in the optical properties. They have already successfully fabricated plastic scintillators incorporating elements of high atomic numbers as oxide nanoparticles with two unique methods: sol-gel and two-step supercritical hydrothermal methods.

Student Interview: Alexandre Kircher (France)

A Lyon in Sendai



Alexandre Kircher is a 22-year-old student from the Ecole Centrale of Lyon, one of the top engineering schools of France. Interested in Japanese culture since his childhood, he was given the opportunity to work in the Sugawa and Kuroda Laboratory for a whole semester during his gap year between the first and second years of his Master Degree, before returning to his home university to complete the last year of his master degree in On-Board System Engineering. At the School of Engineering of Tohoku University, he is doing research on Random Telegraph Noise (RTN), electronic noise which appears in small transistors and in unreliable data obtained when a large number of transistors are involved.

Student Interview: Hafiyen Prafianto (Indonesia)

Gaming Japanese Language



Hafiyen comes from Tangerang in Indonesia. His first visit to Japan was in 2007 after graduating from a madrasa. He came as an undergraduate student and received a scholarship from MEXT. Following a one-year intensive Japanese language training program, he started studying information technology (computer science) in a college of technology in Yamato Koriyama, a small city in Nara Prefecture. He learnt how to program, a way to maximize the potential usefulness of computers for humans. He then came to Sendai in 2013, starting his graduate studies at Tohoku University in the Ito-Nose Laboratory (then Ito Laboratory), mostly by happenstance. His motivation for continuing on to graduate school was to find an application for his rather limited knowledge of computer science.

Sport Club: Sumo

Defending the Flag of Tohoku University

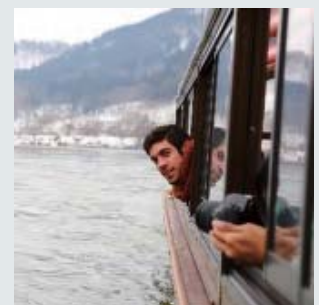
Among the range of extracurricular activities on offer at Tohoku University is sumo wrestling. Highly revered among Japanese, sumo is Japan's national sport. Sumo wrestling was originally performed on the grounds of a shrine before becoming a professional sport during the Tokugawa period. When the shogunate collapsed and Japan opened its ports to the international community, steps were taken to rapidly modernize the country. This included an official decree encouraging people to cut their topknots and wear their hair in the western style. These days, sumo wrestlers are among the few remaining wearers of the traditional chonmage hair style. So important is this hair-do that the centerpiece of a sumo wrestler's retirement ceremony includes snipping off the top knot.

Campus News

Gyoza party

The Division of International Education and Exchange of the School of Engineering often organizes events to promote Japanese culture. The last one, which attracted both international and Japanese students, was on the theme of gyoza, a kind of dumpling consisting of ground meat and vegetables wrapped in a thin piece of dough, one of the most popular dishes in Japan.

Japanese whiskey and tradition. About a dozen local and foreign students from the School of Engineering recently enjoyed a day trip around Miyagi and Yamagata. The annual excursion around the region, organized by IEED, is always a great way for students to get to know more about Tohoku, as well as each other. The trip this past winter began at the Nikka Whisky distillery on the outskirts of Sendai.



Cherry picnic

Every April, all laboratories of Tohoku University hold Hanami, the Japanese tradition of enjoying the beauty of flowers, especially cherry blossoms, while picnicking with friends or co-workers.



Study in Japan! Study in Tohoku University!

Realize your dream in Aobayama
Study/Research Programs
 for International Students in Partner
 Universities Overseas

Program Information

	Program Name	Field	Language	Duration	Target	
					Undergrad.	Grad.
Summer Program	TESP (Tohoku University Engineering Summer Program)	· Robotics Course · Electrical & Electronic Engineering Course	English	2weeks	—	✓
	TSSP (Tohoku University Science Summer Program)	Science, Engineering	English	2weeks	✓	—
	TUJP (Tohoku University Japanese Program)	Japanese Language, Culture and Society	English/ Japanese	2weeks	✓	—
Exchange Program	JYPE (Junior Year Program in English)	Engineering, Science, Agriculture	English	1-2semesters	✓ (3rd, 4th year)	—
	IPLA (International Program in Liberal Arts)	Economics, Management, Education, Literature, Agricultural Economics, Law	English	1-2semesters	✓ (3rd, 4th year)	—
	DEEP-Bridge (Direct Enrollment Program for Humanity/Social science faculties)	Arts & Letters, Education, Law, Economics & Management	Japanese (JLPT N3 or higher)	1-2semesters	✓	✓
	DEEP (Direct Enrollment Education Program for Natural science faculties)	Engineering, Science, Medicine, Dentistry, Pharmacy & Pharmaceutical Science, Agriculture	English/ Japanese	1-2semesters	✓	✓
	COLABS (Cooperative Laboratory Study Program)	All Natural Sciences Courses	English	1-2semesters	—	✓
	COLABS Short-term <Intensive> (Cooperative Laboratory Study Program – Intensive)	All Natural Sciences Courses	English	32days – 3months	—	✓
	COLABS Short-term <Workshop-style> (Cooperative Laboratory Study Program – Workshop-style)	All Natural Sciences Courses	English	10days – 31days	—	✓
Degree Program	IMAC-U (International Mechanical and Aerospace Engineering Course)	Fields in the Division of Mechanical Engineering	English	4-year bachelor's program	✓	—
	IMAC-G (International Mechanical and Aerospace Engineering Course)	Fields in the Division of Mechanical Engineering	English	2-year master's and 3-year doctoral programs	—	✓
	IMSE (International Materials Science and Engineering Course)	Metallurgy, Materials Science, Materials Processing	English	2-year master's program	—	✓
	Double Degree Program	Engineering, Science, etc.	English/ Japanese	1.5-2years	case by case	✓
	International Doctoral Program	Engineering, Information Sciences, Environmental Studies, Biomedical Engineering	English	3-year doctoral program	—	✓ (doctoral)

Admission Information for
International Degree Programs

International Doctoral Program (PhD)
<http://www.eng.tohoku.ac.jp/english/admission/procedure/doctoral.html>

IMAC-U (Bachelor), IMAC-G (Master,PhD)
<http://g30.eng.tohoku.ac.jp/imac/>

IMSE (Master)
<http://g30.eng.tohoku.ac.jp/imse/>

Academic Exchange Agreements
with Foreign Institutions

Tohoku University Level: 190
<http://www.bureau.tohoku.ac.jp/kokusai/exchangej/scientificj/en/university-en.html>

School of Engineering Level: 67
<http://www.bureau.tohoku.ac.jp/kokusai/exchangej/scientificj/en/department-en.html>

Support for International Students

Japanese Language Class

In Aobayama, IEED of SoE offers various levels of Japanese classes for international students. Beginners tackle learning Japanese with curiosity, and some try to improve their Japanese with passion.

The classes/levels are as follows;
 Basic Japanese 1 & 2, Intermediate Japanese 1 & 2, Scientific and Technical Japanese A & B.



Tutor System

Tohoku University has a “tutor system” for new international students. Tutors are mostly Japanese students or international students who have stayed in Japan for a relative long time and know well about Japan.

Tutors help new international students on and off campus. There are many international alumni who still keep in touch with their tutors as their “first friend in Japan” even after graduation.

