

HELLO FROM AOBAYAMA

School of Engineering
Tohoku University



No.1

May 15, 2014

Message from the Dean

Dear alumni, colleagues at our partner universities, teachers in high schools, and friends, With the beginning of a new academic year in Japan, I am pleased to send you the first issue of this newsletter from the School of Engineering. We are proud of the abundance of world-class research that has been achieved by our staff and students over the years and are continuing to be at the forefront of various innovative engineering fields. Toward the globalization of higher education, we are seeking to strengthen the rapport with our alumni and friends all over the world and hope that this biannual newsletter can act as a messenger to keep you informed of what is going on at our school and make it possible for you to follow our progress. We also hope that you will offer us your valuable opinions and suggestions and introduce us to your friends and acquaintances who share our ideas and spirit of benefiting all humankind through progress in science and technology. We warmly welcome your recommendations of prospective young people who may be interested in pursuing study opportunities at our school. Please join us in our efforts to reach new heights of excellence.

Hiroshi Kanai, Dean and Professor

Innovation of Engineering Education



- A six-year (four-year undergraduate plus two-year master course) engineering education program is initiated to enhance professional engineering education based on the Students' Study Evaluation Standard, which was recently established by our school, as the first such standard established in the national universities in Japan. The aim of this new study system is to strengthen the training of the talented researchers who can potentially play an active role at the frontier of research in the world, as well as top technical personnel who can take leading role in advanced industry in the future.
- Two "National Leading Graduate Schools" selected by MEXT:
 - ▶ Science of global safety
 - ▶ Multi-dimension materials science
- University ranking by Japanese high school teachers (2006-2013): TU: 1st rank
- University ranking by Japanese business people (2013): TU: 1st rank

Overview of Research



Since its establishment in 1907, "Research First" has been one of the three fundamental principles of Tohoku University. This has enabled it to maintain a high level of research for over 100 years. Engineering is the one of the most active research fields at Tohoku University and the School of Engineering has established a reputation as vibrant center of high-quality research and development at various world leading new frontiers.

- Academic Ranking of World Universities (Shanghai Jiao Tong University) Engineering & Computer Sciences (2013): TU: 24th in the world, 1st in Asia.
- Annual Research Funding (2013): 3,659,481,000 JPY, 25.2% of the total revenue
- Grants-in-aid for Scientific Research: 379, Commissioned Research: 328

Admission Information of International Degree Programs



- International Doctoral Program in Engineering, Information Sciences, Environmental Studies and Biomedical Engineering
<http://www.eng.tohoku.ac.jp/english/admission/procedure/doctoral.html>
- International Mechanical and Aerospace Engineering Course (IMAC-G, IMAC-U) **Bachelor, Master, Doctoral** course
<http://g30.eng.tohoku.ac.jp/imac/>
- International Materials Science and Engineering **Master** course (IMSE)
<http://g30.eng.tohoku.ac.jp/imse/>

The School of Engineering TODAY

Organization

- **School of Engineering**
5 undergraduate departments (offering 25 courses)
- Graduate School
18 departments
3 research centers in the School of Engineering

- **Engineering Group**
School of Engineering plus the following associated units:
3 graduate schools
5 research Institutes
4 research centers

Personnel

- **School of Engineering**
Faculty members: 619
Professors: 217
Associate professors: 185
Lecturers: 6
Assistant professors: 207
Research Associates: 4
Administrative staff: 222

- **Engineering Group**
Faculty members: ~1000 (including ~400 professors)

- **Students: 5720**
Undergraduates: 3,693
Graduate students: 2,027
Master course: 1507
Doctor course: 520

International students
446 students
from 47 countries

Data as of Nov. 2013

Study in Japan! Study in Tohoku University!

Realize your dream in Aobayama

Degree Programs in English for International Students



International Doctoral Program in Engineering, Information Sciences, Environmental Studies and Biomedical Engineering

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

doctoral.html

Contact: eng-in@bureau.tohoku.ac.jp

Application Deadline: **May 30.**

Course starts: Oct. 1

This international doctoral program has been implemented by the School of Engineering, School of Information Sciences, School of Environmental Studies and School of Biomedical Engineering. Many departments are involved in conducting research in a wide range and interdisciplinary fields. The course comprises 3 groups: Group A, Life Science, Group B, Green Innovation, and Group C, Safety and Security.

International Materials Science and Engineering Course (IMSE)

<http://g30.eng.tohoku.ac.jp/imse/>

Contact: eng-in@bureau.tohoku.ac.jp

Application Deadline: **Jan. 8**

Course starts: Sep. 29

The International Materials Science and Engineering Master Course (IMSE) is a program offered for graduate students in materials science and engineering. Three departments, i.e., the Department of Metallurgy, Department of Materials Science and Department of Materials Processing, are participating in this program. Institutes related to IMSE include the Institute for Materials Research (IMR), Institute of Multidisciplinary Research for Advanced Materials (IMRAM). An International Doctoral Program of Materials Science is also provided in the departments to enable students to pursue a longer perspective on their research.



International Mechanical and Aerospace Engineering Course (IMAC) Undergraduate Course (IMAC-U): Bachelor Graduate Course (IMAC-G): Master, Doctor

<http://g30.eng.tohoku.ac.jp/imac/>

The International Mechanical and Aerospace Engineering Course (IMAC) is a fully English taught engineering degree program organized by the Division of Mechanical Engineering. IMAC pursues the creation of science and technology which enrich peoples' lives, and promote borderless higher education through exchange with students from various countries. Prospective students will have excellent opportunities to study fundamental engineering and conduct cutting-edge research, as well as heighten their international sense, under the supervision of world-leading professors.

IMAC-U (Bachelor Degree)

The students studying in this undergraduate course will belong to one of the six courses listed below:

Course of Mechanical Systems and Design

Course of Nanomechanics

Course of Aerospace Engineering

Course of Quantum Science and Energy Engineering

Course of Bioengineering and Robot Systems

Course of Environment and Energy Engineering

Admission

1st Recruiting Round: **Application Deadline: Jan. 31**

2nd Recruiting Round: **Application Deadline: May 30**

Course Starts: Oct. 1

Contact: imac-u@mech.tohoku.ac.jp

IMAC-G (Master, Doctoral Degree)

The students studying in this graduate course will belong to one of the five departments listed below:

Department of Mechanical Systems and Design

Department of Nanomechanics

Department of Aerospace Engineering

Department of Bioengineering and Robotics

Department of Quantum Science and Energy Engineering

Admission

Apr. Enrollment: Course Starts: Apr. 1

Application Deadline: Early Jan.

Oct. Enrollment: Course Starts: Oct. 1

1st Recruiting Round: **Application Deadline: Early Jan.**

2nd Recruiting Round: **Application Deadline: Mid Jun.**

Contact: imac-g@mech.tohoku.ac.jp

International students can also apply (in English) to the degree programs which most Japanese students take. Please find details from the web version of the newsletter at <http://newsletter.eng.tohoku.ac.jp/>. Before application, please contact the expected professor by email.