

# TOKYO TECH

PROFILE 2013-2014



TOKYO INSTITUTE OF TECHNOLOGY





Commanding view of the Main Building



The seal of Tokyo Institute of Technology was designed in 1948 by Mr. Shinji Hori, then professor at the Tokyo Fine Arts School. The white portion represents the Japanese character [工] which is the first character of “engineering” [工業], and also describes the concept of a window, which is the second character of “school” [学窓]. The black part symbolizes a swallow, and represents the Japanese character [大] which is the first character of “university” [大学]. The design was originally adopted for staff badges and has been used throughout the Institute ever since. In 1981, at the Institute’s 100th anniversary, the design was formally adopted as the seal of Tokyo Institute of Technology. On that occasion, then Assistant Professor Ario Tejima of Tokyo University of the Arts, grandson of Prof. Seiichi Tejima, kindly cooperated in refining the design.

## Tokyo Tech

Tokyo Institute of Technology is commonly referred to as Tokyo Tech.



### School Color

Royal blue was chosen as the official school color in 2004. The color stands for advancement and evolution.



Library in Spring



Suzukake Hall in Fall

## Education that Cultivates Students with the Mettle to Change the World

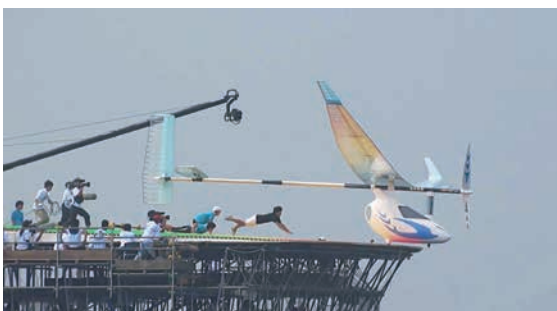
**MISHIMA Yoshinao** President, Tokyo Institute of Technology



I was inaugurated as the president of Tokyo Institute of Technology (Tokyo Tech) on October 1, 2012. This past year I have done everything I could to establish an atmosphere conducive to moving forward having achieved a consensus of faculty members and staff on a clearly defined goal for the Institute. Immediately after my appointment, Members of the Board and I attended every *Faculty Meeting* to convey our objectives and policies, and listened to the opinions of their members. I also held university-wide meetings to explain our current Education Reform Plan and have been sharing information and discussing the future of Tokyo Tech with concerned parties while pushing ahead with reform. I have a growing collection of opinions from individuals both affiliated with and external to the Institute and I can sense that Tokyo Tech has become more vibrant and focused as a whole.

We are currently formulating a new education system in preparation for its launch in FY2016, the 135<sup>th</sup> anniversary of the founding of Tokyo Tech. Becoming one of the *World's Top 10 Research Universities* by 2030 is one of Tokyo Tech's goals. We have already achieved world-leading status in a number of research fields and we have many outstanding researchers. However, we cannot achieve our goal simply by conducting top-level research. Both research and education are integral to universities. Our goal only becomes achievable when we can offer a world-leading education as well. This is the objective of our Education Reform Plan.

Extremely talented high school students and examinees from all over Japan matriculate at Tokyo Tech each year. When considering the question "Does the education we offer do enough to develop the potential of these outstanding students," I determined that Tokyo Tech could do more. I would like to create a world-leading educational environment in which students are able to acquire both academic breadth and depth with an expertise in a desired field of science and technology while contemplating their futures.



Our Education Reform Plan seeks to improve the quality of education at Tokyo Tech by comprehensively overhauling our curriculum, making syllabi (class content) accessible worldwide and improving teaching methodologies. I would like to establish an educational environment on a par with that of world-leading universities in order to facilitate the introduction of a credit transfer system with universities abroad. It is my hope that our students will experience studying abroad while they are undergraduates, if only for a short time, and then gain further international experience over a longer period of stay at the graduate level.

I would also like a large number of outstanding international students to study at Tokyo Tech and to promote international exchange among faculty members. For example, I would like to invite Nobel-Prize-level faculty to Tokyo Tech to encourage international perspectives among our students through lectures and discussions and engage in other initiatives geared toward creating a global atmosphere on all of our campuses. I look forward to working together with faculty members, staff and students to develop an education at Tokyo Tech that cultivates students with the mettle to change the world.

I would also like to create further opportunities to hear the opinions of all concerned parties. In particular, I would like to have more opportunities to engage in dialogue with students and exchange opinions about the future and the educational reforms being advanced by the Institute.

2013 marked another year of various outstanding performances by Tokyo Tech students. I was delighted that Meister placed first in the human-powered aircraft distance rally category of the 2013 Japan International Birdman Rally. The Tokyo Tech community is encouraged by its students' high achievements. I will continue to support their extracurricular activities.

President Mishima

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# ORGANIZATION

As of October 4, 2013

## Administration



President  
**MISHIMA Yoshinao**



Auditor  
**SHIMIZU Yasutaka**



Auditor  
**SUZUKI Motoyuki**

### Board of Directors

President Nomination Committee

Management Committee

Educational and Research Council

Deans & Directors Conference

Headquarters for the Promotion of Education Reform

Office of Advisors to the President

President Advisory Board

Internal Audit Office

Compliance Office

Risk Management Office

Campus Improvement Projects Office



Executive Vice President  
**OKADA Kiyoshi**



Executive Vice President  
**MARUYAMA Toshio**



Executive Vice President  
**TATSUMI Takashi**



Executive Vice President  
**OTANI Kiyoshi**



Vice President  
**YAMAGUCHI Satoshi**



Vice President  
**KINOSHITA Shione**



Vice President  
**MIZUMOTO Tetsuya**



Vice President  
**UYEMATSU Tomohiko**



Vice President  
**MARUYAMA Tsuyoshi**

### Planning Office

Evaluation Office

Educational Planning Office

International Office

Research Strategy Office

Office of Industry Liaison

General Safety Management Center

Financial Management Office

Information Infrastructure Management Office

Center for Public Information

University Management Center

Admission Office

Gender Equality Center

Public Outreach Office

Research Administration Center

Energy Conservation Promotion Office

University Contents Utilization Center

Admission Center

Administrative Departments

Technical Department

## Academics

### Research Facilities

- Imaging Science and Engineering Laboratory
- Frontier Research Center
- Solutions Research Laboratory
- Materials Research Center for Element Strategy

### Research Institutes

Integrated Research Institute  
Global Edge Institute  
Museum  
Academy for Global Leadership  
Academy for Co-creative Education of Environment and Energy Science  
Education Academy of Computational Life Sciences  
Academy for Global Nuclear Safety and Security Agent  
Earth-Life Science Institute  
Innovator and Inventor Development Platform

### Research Laboratories

- Chemical Resources Laboratory  
- Resources Recycling Process Laboratory
- Precision and Intelligence Laboratory  
- Photonics Integration System Research Center  
- Secure Device Research Center
- Materials and Structures Laboratory  
- Secure Materials Center
- Research Laboratory for Nuclear Reactors  
- International Nuclear Research Cooperation Center

### Research and Service Centers

Health Service Centers (Ookayama & Suzukakedai)  
Global Scientific Information and Computing Center  
Research Center for Educational Facilities  
Volcanic Fluid Research Center  
International Student Center  
Quantum Nanoelectronics Research Center  
Foreign Language Research and Teaching Center  
Center for Biological Resources and Informatics  
Center for Liberal Arts  
Radiation Research and Management Center  
30 Additional Facilities

### 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

### Undergraduate Schools

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

Tokyo Tech High School of Science and Technology

Institute Libraries

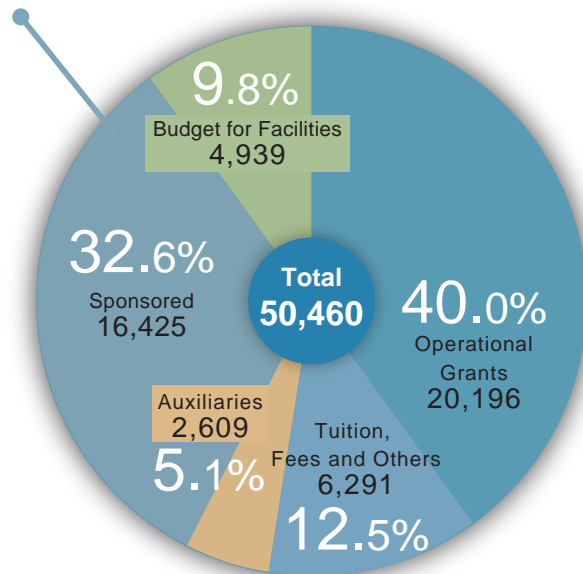
# FINANCIAL DATA

## Budget FY2013

### Revenue

(Unit: million yen)

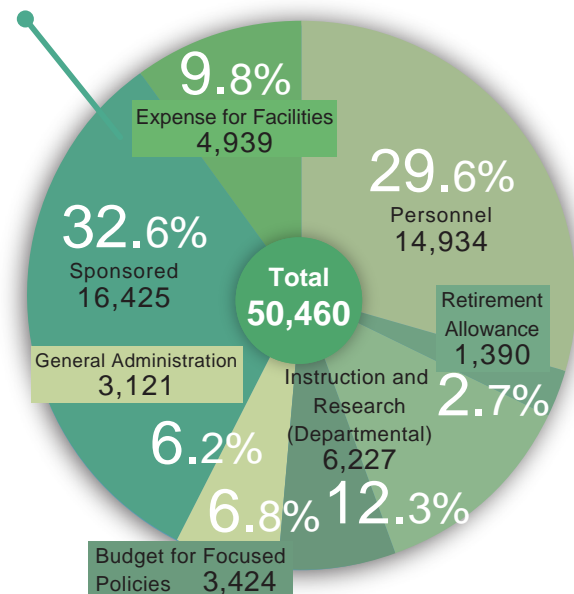
Sponsored Funds consisting of grants and donations  
 Donations for Research 988  
 Sponsored/Collaborative Research 6,155  
 Grants 9,282



### Expenditure

(Unit: million yen)

Sponsored Funds consisting of grants and donations  
 Donations for Research 988  
 Sponsored/Collaborative Research 6,155  
 Grants 9,282



## Financial Summary FY2012

### Balance Sheet

As of March 31, 2013

(Unit: million yen)

Assets	Amount	Liabilities	Amount
Fixed Assets	223,344	Fixed Liabilities	27,147
Tangible Fixed Assets	217,820	Current Liabilities	20,272
Intangible Fixed Assets	529	Total	47,419
Other	4,994	Net Assets	
Current Assets	13,089	Capital Stock	179,557
Cash and Cash Equivalents	7,977	Capital Surplus	8,757
Other	5,111	Earned Surplus	671
		Other	27
		Total	189,014
Total	236,433	Total	236,433

(Fractions under one million yen are omitted.)

### Income Statement

April 1, 2012- March 31, 2013

(Unit: million yen)

Account	Amount
Ordinary Expenses (A)	42,654
Operating Expenses	40,324
General and Administrative Expenses	2,126
Other	203
Ordinary Revenues (B)	42,848
Operational Grants	20,763
Tuition and Fees	4,518
Sponsored/Collaborative Research	7,397
Donations for Research	1,312
Grants for Research	2,727
Other	6,127
Extraordinary Profit and Loss (C)	△1
Reversal of Reserve for Specific Purposes (D)	—
Gross Profit (B-A+C+D)	192

(Fractions under one million yen are omitted.)

## FINANCIAL DATA

## Trends of Specific Funds

As of May 1, 2013

	Donations for Research		Sponsored Research		Collaborative Research		Grants-in-Aid for Scientific Research		Sum Total
	Number of Projects	Research Fund (in thousand yen)	Number of Projects	Research Fund (in thousand yen)	Number of Projects	Research Fund (in thousand yen)	Number of Projects	Research Fund (in thousand yen)	
1995	1,165	1,514,461	110	934,342	32	81,506	860	3,429,317	5,959,626
1996	1,219	1,497,442	128	1,482,465	43	130,032	878	3,686,766	6,796,705
1997	1,153	1,373,547	179	1,980,309	61	313,719	883	3,922,595	7,590,170
1998	1,054	1,308,346	218	2,318,725	57	245,140	944	3,646,626	7,518,837
1999	1,058	1,073,273	216	2,715,194	81	369,526	943	3,892,840	8,050,833
2000	952	1,142,806	214	2,632,039	114	485,958	911	3,787,345	8,048,148
2001	916	1,002,015	175	1,416,838 (97,849)	149	551,852	901	4,219,317 (275,220)	7,190,022
2002	953	1,055,472	202	1,287,123 (61,264)	207	889,290	903	4,111,805 (355,830)	7,343,690
2003	929	1,040,681	238	2,519,600 (95,250)	264	863,578	885	4,387,534 (448,530)	8,811,393
2004	937	1,027,383	244	2,990,887 (215,869)	344	1,182,882 (174,146)	925	4,311,301 (422,517)	9,512,453
2005	856	1,067,970	260	3,837,512 (343,774)	423	1,309,985 (257,149)	926	4,646,263 (465,990)	10,861,730
2006	862	1,037,816	294	4,737,492 (484,671)	368	1,513,580 (317,323)	978	4,947,213 (625,438)	12,236,101
2007	869	982,818	309	5,478,090 (593,602)	447	1,787,062 (367,041)	973	5,023,916 (776,463)	13,271,886
2008	810	999,996	290	6,085,691 (724,971)	449	1,802,415 (377,330)	898	4,778,065 (838,992)	13,666,167
2009	653	934,860	310	5,390,329 (805,966)	416	1,458,526 (310,252)	927	4,914,463 (916,026)	12,698,178
2010	624	999,918	353	5,825,569 (814,374)	439	1,579,643 (323,503)	1,010	5,046,601 (1,066,431)	13,451,731
2011	609	1,035,906	352	5,326,505 (865,776)	477	1,530,202 (319,153)	1,005	5,001,808 (1,094,609)	12,894,421
2012	605	947,675	364	6,267,827 (1,005,684)	515	1,527,945 (297,448)	1,070	5,144,892 (1,147,706)	13,888,339

Note: Figures given in parentheses represent overhead costs included in the Research Fund.

## Grants-in-Aid for Scientific Research

FY2012

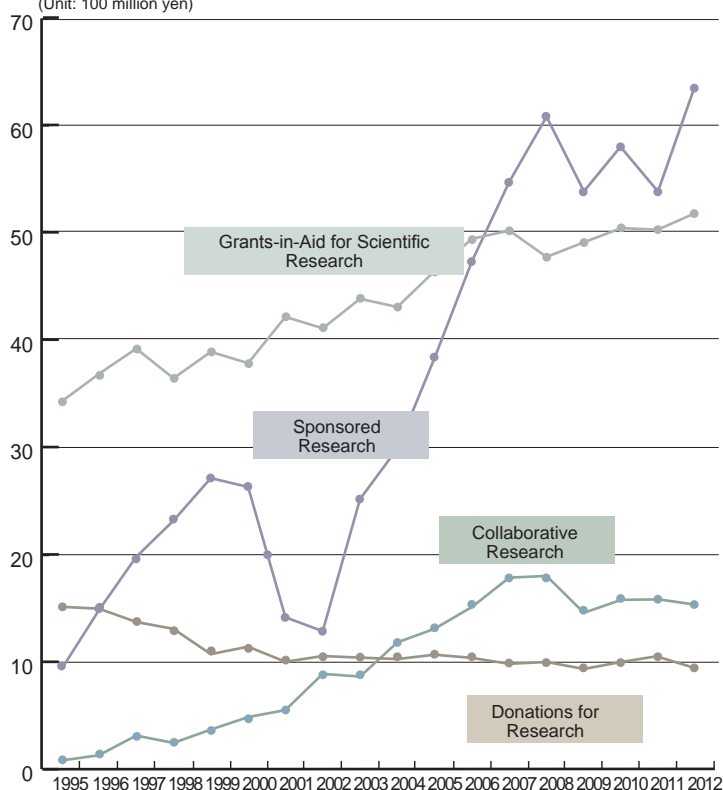
Area of Research	Number of Projects	Research Fund (in thousand yen)
Grant-in-Aid for Specially Promoted Research	5	449,280 (103,680)
Grant-in-Aid for Scientific Research on Priority Areas	2	6,000 (0)
Grant-in-Aid for Scientific Research on Innovative Areas (research in a proposed research area)	80	1,187,550 (274,050)
Grant-in-Aid for Scientific Research on Innovative Areas (research under a proposed research project)	0	0 (0)
Grant-in-Aid for Scientific Research (S)	16	717,860 (165,660)
Grant-in-Aid for Scientific Research (A)	63	773,760 (178,560)
Grant-in-Aid for Scientific Research (B)	143	752,570 (173,670)
Grant-in-Aid for Scientific Research (C)	182	296,400 (68,400)
Grant-in-Aid for Challenging Exploratory Research	124	221,130 (51,030)
Grant-in-Aid for Young Scientists (S)	2	38,220 (8,820)
Grant-in-Aid for Young Scientists (A)	31	206,960 (47,760)
Grant-in-Aid for Young Scientists (B)	191	298,852 (68,966)
Grant-in-Aid for Research Activity Start-up	20	30,810 (7,110)
Grant-in-Aid for Creative Scientific Research	0	0 (0)
Grant-in-Aid for JSPS Fellows	211	165,500 (0)
Sum Total	1,070	5,144,892 (1,147,706)

Notes: 1) Figures given in parentheses represent overhead costs included in the Research Fund.

2) JSPS stands for the Japan Society for the Promotion of Science.

## Trends of Funds

(Unit: 100 million yen)



# UNDERGRADUATE PROGRAM

## School of Science (5 Departments)

As of May 1, 2013

<http://www.sci.titech.ac.jp/english/index-e.html>

The School of Science is made up of five departments that are the pillars of scientific education. The goal is to provide our students with the expert knowledge, rigorous logical thinking and problem-solving abilities that are needed in this highly technological era.



### Mathematics

<http://www.math.titech.ac.jp/en/index.html>

### Physics

<http://www.phys.titech.ac.jp/english/index.html>

### Chemistry

<http://www.chem.titech.ac.jp/en/index.html>

### Information Science

<http://www.is.titech.ac.jp/index-e.html>

### Earth and Planetary Sciences

[http://www.geo.titech.ac.jp/english\\_index.php](http://www.geo.titech.ac.jp/english_index.php)

## School of Engineering (16 Departments)

As of May 1, 2013

[http://www.eng.titech.ac.jp/index\\_e.html](http://www.eng.titech.ac.jp/index_e.html)

The School of Engineering is home to 70 percent of all students, or those in Academic Groups 2-6. It contains 16 of Tokyo Institute of Technology's 23 undergraduate departments. The education is based on teaching strong fundamentals while fostering creativity. Students form teams that must identify problems and create innovative solutions in order to integrate the essential knowledge with new ideas and further design and manufacture real applications. Our graduates are expected to have strong foundations in engineering, the ability to communicate internationally as well as leadership skills. These elements, along with specialized subjects taught from year one, are woven into the curriculum, and it all spirals up from entrance to graduation.

### Metallurgical Engineering

<http://www.mtl.titech.ac.jp/metal-e.html>

### Organic and Polymeric Materials

<http://www.op.titech.ac.jp/op/index-e.html>

### Inorganic Materials

<http://www.ceram.titech.ac.jp/en/index-e.html>

### Chemical Engineering

<http://www.chemeng.titech.ac.jp/english/index.htm>  
<http://www.apc.titech.ac.jp/apc-e.html>

### Polymer Chemistry

<http://www.op.titech.ac.jp/polymer/index-e.htm>

### Mechanical Engineering and Science

<http://www.mech.titech.ac.jp/~top/index-en.html>

### Mechanical and Intelligent Systems Engineering

<http://www.mep.titech.ac.jp/mise.html>

### Mechano-Aerospace Engineering

<http://www.mes.titech.ac.jp/index.html>

### Control and Systems Engineering

<http://www.ctrl.titech.ac.jp/home-e.html>

### Industrial and Systems Engineering

<http://www.me.titech.ac.jp/index-e.html>

### Electrical and Electronic Engineering

<http://www.u.ee.titech.ac.jp/eng/index.html>

### Computer Science

<http://www.cs.titech.ac.jp/~csu/index.html>

### Civil and Environmental Engineering

<http://www.cv.titech.ac.jp/english>

### Architecture and Building Engineering

<http://www.arch.titech.ac.jp/index-e.html>

### Social Engineering

[http://www.soc.titech.ac.jp/major\\_En/index.html](http://www.soc.titech.ac.jp/major_En/index.html)

### International Development Engineering

<http://www.ide.titech.ac.jp/en/>

## School of Bioscience and Biotechnology (2 Departments)

As of May 1, 2013

<http://www.bio.titech.ac.jp/english/index.html>

This faculty was established in 1990 to enhance education and research in the integrated field of bioscience and biotechnology. It consists of two departments: the Department of Bioscience and the Department of Biotechnology. A total of 150 students are accepted to the school every year. Generally 1st- and 2nd-year students study at the Ookayama Campus, moving to the Suzukakedai Campus from their third year.

### Bioscience

[http://www.bio.titech.ac.jp/english/information/en\\_gakubu/en\\_kagakuka.html](http://www.bio.titech.ac.jp/english/information/en_gakubu/en_kagakuka.html)

### Biotechnology

[http://www.bio.titech.ac.jp/english/information/en\\_gakubu/en\\_kougakuka.html](http://www.bio.titech.ac.jp/english/information/en_gakubu/en_kougakuka.html)


## GRADUATE PROGRAM

## Graduate School of Science and Engineering (20 Departments)

As of May 1, 2013

**Graduate School of Science** <http://www.sci.titech.ac.jp/english/index-e.html>

The faculty and students of the Graduate School of Science devote themselves day and night to research in new fields, driven by the sheer pleasure of discovery. Our education aims to develop the ability to look at the roots of problems and to solve the issues one by one through the rigorous application of logical thinking. Whether one studies the nature of prime numbers, the principles of quantum computers, the ultimate structure of the universe, new nano elements and synthetic molecules, or the mysteries of the emergence of life on earth, our internationally recognized researchers produce leading-edge results in all the fields that have long fascinated mankind.

**Graduate School of Engineering** [http://www.eng.titech.ac.jp/index\\_e.html](http://www.eng.titech.ac.jp/index_e.html)

The Graduate School of Engineering covers 15 fields, and its teaching staff and students represent about 30 percent of the Institute. While teaching in the master's course is the main focus, we also work on leading-edge research themes. We encourage our top students to continue on to doctoral courses, for which we have our own Research Assistant budget. Through the Asia-Oceania Top University League on Engineering (AOTULE) and other exchange agreements with top overseas institutes we are able to provide our students with a strong international outlook. Similarly, our joint program with the universities of Osaka and Nagoya offer the teaching staff opportunities for growth.

**Mathematics**<http://www.math.titech.ac.jp/en/index.html>**Research Fields**

Theory of Algebraic Structures, Algebraic Geometry, Geometry, Topology, Analysis, Global Mathematics

**Physics (Particle-, Nuclear- and Astro-Physics)**<http://www.phys.titech.ac.jp/english/index.html>**Research Fields**

Particle-, Nuclear- and Astro-Physics, Interdisciplinary Research in Fundamental Physics, Leading Edge Fundamental Physics\*\*, Nuclear-Particle Physics Experiment\*\*, Theoretical Few-body Physics\*\*

**Physics (Condensed Matter Physics)**<http://www.phys.titech.ac.jp/english/index.html>**Research Fields**

Nanometer-scale Quantum Physics, Statistical and Surface Physics, Applied Physics, Molecular and Optical Physics, Experimental Research on Quantum Phenomena, Interdisciplinary Research in Condensed Matter Physics, Low Temperature Physics, Advanced Condensed Matter Physics\*\*

**Chemistry**<http://www.chemistry.titech.ac.jp/english/index.html>**Research Fields**

Chemistry of Condensed Matter, Molecular Science, Organic Chemistry, Environmental Chemistry, Volcano Chemistry\*, Emergent Molecular Functions\*\*, Interfacial Physical Chemistry\*\*, Hybrid Carbon Chemistry\*\*, Organic Reaction Chemistry\*\*

**Earth and Planetary Sciences**[http://www.geo.titech.ac.jp/english\\_index.php](http://www.geo.titech.ac.jp/english_index.php)**Research Fields**

Earth and Planetary Physics, Evolution of Earth and Planets, Origin of Solar System, Planetary Exploration

**Chemistry and Materials Science**<http://www.cms.titech.ac.jp/index-e.html>**Research Fields**

Material Structure, Chemical Transformations, Materials Design, Functional Materials

**Metallurgy and Ceramics Science**<http://www.macs.titech.ac.jp/english>**Research Fields**

Metal Physics, Metal Chemistry, Design of Alloys and Materials, Inorganic Functional Materials, Inorganic Environmental Materials, Ceramic Matrix Composites

**Organic and Polymeric Materials**[http://www.op.titech.ac.jp/index\\_e.html](http://www.op.titech.ac.jp/index_e.html)**Research Fields**

Polymer Science, Soft Materials Science, Organic and Polymeric Materials

**Applied Chemistry**<http://www.apc.titech.ac.jp/apc-e.html>**Research Fields**

Molecular Functions Design, Chemical Reactions Design

**Chemical Engineering**<http://www.chemeng.titech.ac.jp/english/index.htm>**Research Fields**

Process Analysis, Process Design, Process Operation, Information Analysis\*

**Mechanical Sciences and Engineering**[http://www.3mech.titech.ac.jp/index\\_e.html](http://www.3mech.titech.ac.jp/index_e.html)**Research Fields**

Thermal and Fluid Science, Dynamics Engineering, Design Engineering, Manufacturing Technology and Science, Mechanics of Solids and Structures, Material System Science

**Mechanical and Control Engineering**[http://www.3mech.titech.ac.jp/index\\_e.html](http://www.3mech.titech.ac.jp/index_e.html)**Research Fields**

Creation for Intelligent Arts, Applied Materials and Mechanics, Energy Engineering, System Dynamics, Measurement and Control, Systems Control, Global Environment Engineering

**Mechanical and Aerospace Engineering**[http://www.3mech.titech.ac.jp/index\\_e.html](http://www.3mech.titech.ac.jp/index_e.html)**Research Fields**

Advanced Thermo-Fluid Dynamics, Structural Design, Mechano-Creation

**Electrical and Electronic Engineering**<http://www.ee.titech.ac.jp/english/>**Research Fields**

Autonomous Systems Engineering, Power Electronics Engineering, Communications and Transmissions Engineering, Photonic Devices Engineering\*, Nanobiomagnetic Engineering\*\*, Railway Technology Innovation and Standardization [Endowed Chair by East Japan Railway Company]\*\*\*

**Physical Electronics**<http://www.ee.titech.ac.jp/english/>**Research Fields**

Advanced Electronics, Electrical and Electronic Materials Engineering, Integrated Devices, Quantum Device Physics\*

**Communications and Computer Engineering**<http://www.ce.titech.ac.jp/index.html>**Research Fields**

Information Systems, High-Performance Integrated Systems, Communication Systems, Intelligent Networks\*

**Civil Engineering**<http://www.cv.titech.ac.jp/english/>**Research Fields**

Construction Engineering, Environmental Engineering, Infrastructure Planning

**Architecture and Building Engineering**<http://www.arch.titech.ac.jp/index-e.html>**Research Fields**

Principles of Architecture and Building Engineering, Planning in Architecture and Building Engineering, Design in Architecture and Building Engineering, Environments in Architecture and Building Engineering, Regional Facility Planning\*

**International Development Engineering**<http://www.ide.titech.ac.jp/en/>**Research Fields**

International Environment Engineering, International Infrastructure Engineering, Industrial Development System Engineering, International Co-Existence\*

**Nuclear Engineering**<http://www.nr.titech.ac.jp/graduate/index-e.html>**Research Fields**

Nuclear Energy\*, Nuclear Materials\*, Nuclear Systems and Safety\*, Nuclear Back-Ends Engineering, Innovative Nuclear Reactors, International Nuclear Power Human Resource Training [Hitachi-GE] Chair Course\*\*\*

**Common Sections****Special Research Fields**

Interdisciplinary Science (Interactive Research Center of Science),

<http://www.ircs.titech.ac.jp/english/index.php>

Engineering Fundamentals and Strategic Planning

<http://www.fesp.titech.ac.jp>

Notes: \* Conducted in alliance with collaborative professors and their research groups from other departments or schools on campus.

\*\* Conducted in alliance with visiting professors and their collaborative research groups.

\*\*\* Conducted in alliance with professors in endowed chairs and their research groups on campus.



## Graduate School of Bioscience and Biotechnology (5 Departments)

As of May 1, 2013

<http://www.bio.titech.ac.jp/english/index.html>

The Graduate School of Bioscience and Biotechnology was established in 1992 and consists of five departments. Every year around 150 students enroll in the master's course and 40 students in the doctoral course. This graduate school has initiated advanced research in bioscience and biotechnology, such as biochemistry, medical science, pharmaceutical science, agriculture and engineering.

### Life Science

[http://www.bio.titech.ac.jp/english/information/en\\_grad/lis/index.html](http://www.bio.titech.ac.jp/english/information/en_grad/lis/index.html)

#### Research Fields

Biodynamics, Structure and Function of Molecules, Bioinformation and Regulation, Life Science Frontier\*, Molecular Genomics\*, Advanced Bioscience\*\*

### Biological Information

[http://www.bio.titech.ac.jp/english/information/en\\_grad/bi/index.html](http://www.bio.titech.ac.jp/english/information/en_grad/bi/index.html)

#### Research Fields

Bioinformation and Medical Science, Bioregulation Sciences, Bioinformation Engineering, Bioinformatics\*, Bioregulation Networks\*\*

### Biomolecular Engineering

[http://www.bio.titech.ac.jp/english/information/en\\_grad/be/index.html](http://www.bio.titech.ac.jp/english/information/en_grad/be/index.html)

#### Research Fields

Biomaterial Physics, Biomaterial Design, Biofunctional Engineering, Biological Computational Chemistry\*, Bio-organic Chemistry\*, Advanced Biofunctional Engineering\*\*

Notes: \* Conducted in alliance with collaborative professors and their research groups from other departments or schools on campus.

\*\* Conducted in alliance with visiting professors and their collaborative research groups.

### Biological Sciences

[http://www.bio.titech.ac.jp/english/information/en\\_grad/bs/index.html](http://www.bio.titech.ac.jp/english/information/en_grad/bs/index.html)

#### Research Fields

Biological Information and Biogenesis, Evolution and Comparative Biology, Cellular and Developmental Biology, Genome Structure and Function\*

### Bioengineering

[http://www.bio.titech.ac.jp/english/information/en\\_grad/b/index.html](http://www.bio.titech.ac.jp/english/information/en_grad/b/index.html)

#### Research Fields

Cellular and Molecular Bioengineering, Biomolecular Process Engineering, Functional Bioengineering, Cellular Bioengineering\*

## Interdisciplinary Graduate School of Science and Engineering (11 Departments + IPER)

As of May 1, 2013

<http://www.igs.titech.ac.jp/english>

The Interdisciplinary Graduate School of Science and Engineering is comprised of 11 departments, which are classified into three groups. There is no undergraduate program as it aims to be an interdisciplinary graduate school. Crossing over the three groups, the Innovation Platform for Education and Research (IPER) was established to offer an advanced education while providing a platform for conducting doctoral research as well as bridging the three groups. The school has been pioneering new interdisciplinary fields for providing technologies required to create a sustainable society not only in Japan but around the world.

### Innovative and Engineered Materials

<http://www.iem.titech.ac.jp/english>

#### Research Fields

Environmental Materials Engineering and Science

#### Research Fields\*

Highly Functional Materials Engineering and Science, Transient Phase Material Science and Engineering, Functional Materials Design for Element Strategy

### Electronic Chemistry

<http://www.echem.titech.ac.jp/english>

#### Research Fields

Molecular Process, Material and Energy Conversion

#### Research Fields\*

Complex and Electrochemistry, Catalytic Chemistry, Organoelectronic Chemistry, Bioelectronic Chemistry, Spectroscopic Chemistry, Solid State Chemical Physics

### Materials Science and Engineering

<http://www.materia.titech.ac.jp/English/index.html>

#### Research Fields

Materials Structure and Functions, Quantum and Surface Materials Science

#### Research Fields\*

Design of Environmentally Beneficial Materials, Materials Processing with Low Environmental Loads, Structure and Diffraction Physics, Electro Active Materials, Synergistic Materials, Materials Evaluation, Materials Structure Design, Frontier Materials Science, Functional Materials Analysis for Element Strategy

### Environmental Science and Technology

<http://www.depe.titech.ac.jp/english/english.html>

#### Research Fields

Natural Environment, Social Environment

#### Research Fields\*

Environment and Energy Engineering, Environment and Material Engineering, Environment and Structural Engineering, Environment and Safety Engineering, Process Systems Engineering, International Environmental Cooperation

### Built Environment

<http://www.igs.titech.ac.jp/english/departments/enveng.html>

#### Research Fields

Built Environment Evaluation, Human Environment and Urban Planning, New Frontier Infrastructure

#### Research Fields\*

Landscape Engineering

### Energy Sciences

<http://www.es.titech.ac.jp/index-e.html>

#### Research Fields

Energy Environment Science, Energy Conversion Engineering, High Energy Density Science

#### Research Fields\*

Energy Environment System, Energy Conversion System, High Energy Density System

### Environmental Chemistry and Engineering

<http://www.igs.titech.ac.jp/english/departments/chemenv.html>

#### Research Fields

Environmental Analysis and Engineering, Catalysis and Green Chemistry

#### Research Fields\*

Environmental Molecular Arrangement, Chemical Process Design, Polymer Processes, Chemical Environmental Process Synthesis, Environmentally Benign Molecular Design, Environmental Biotechnology, Environmental Materials Science

### Electronics and Applied Physics

<http://www.ep.titech.ac.jp/index-e.html>

#### Research Fields

Advanced Electron Devices, Novel Functional Devices

#### Research Fields\*

Imaging Materials, Electron Devices, Photonic Devices and Systems, Material Physics and Engineering Frontiers, Intelligent Electronic Systems, Materials and Information Engineering Frontiers, Integrated Photonics

### Mechano-Micro Engineering

[http://www.pms.titech.ac.jp/Japanese/main\\_E.html](http://www.pms.titech.ac.jp/Japanese/main_E.html)

#### Research Fields

Functionality Creation

#### Research Fields\*

Precision Devices, Advanced Mechatronics, Advanced Mechanomaterial, Secure Micro Devices

### Computational Intelligence and Systems Science

<http://www.dis.titech.ac.jp/en/index.html>

#### Research Fields

Fundamental Intelligent Systems, Complex System Analysis, Emergent Systems

#### Research Fields

Computational Perception and Recognition, Brain Science, Neural Information Processing

### Information Processing

<http://www.ip.titech.ac.jp/index-e.html>

#### Research Fields

Future-Oriented Information Systems, New Functional Information Systems

#### Research Fields\*

Perceptual Image Processing, Advanced Image Science, Sensory Information Systems, Advanced Wave Application Systems, Bioinformation Systems

Note: Research fields marked with an asterisk (\*) are conducted in alliance with collaborative professors and their research groups from other departments or schools on campus.

### Innovative Platform for Education and Research (IPER)

<http://www.igs.titech.ac.jp/iper>

- Doctoral Program in Innovative Platform for Education and Research
- Education and Research Core Groups

## GRADUATE PROGRAM

## Graduate School of Information Science and Engineering (3 Departments)

As of May 1, 2013

<http://www.ise.titech.ac.jp/english/>

Along with the rapid increase of data creation and collection in all fields, both the scope and relevance of information technology are increasing. Beyond solving problems in the natural sciences, students are also educated on how to apply information science to address societal issues. From the fundamentals of computer science and statistics to improving architectural design, software development and user interfaces, the unifying goal of each department of the Graduate School of Information Science and Engineering is to improve and harmonize the relationships between individuals, computers and society.

## Mathematical and Computing Sciences

<http://www.is.titech.ac.jp/index-e.html>

## Research Fields

Computing in Information Science (Mathematical Computing, Software Interfaces, Mathematical and Information Sciences), Mathematical Sciences (Mathematical Analysis of Discrete Structure, Mathematical Analysis on Nonlinear Structure, Statistical Science, Operations Research), Computing Science (Software Analysis, Software Organization), Foundation of Computing Science, Foundation of Software Science

## Computer Science

<http://www.cs.titech.ac.jp/cs-home-e.html>

## Research Fields

Integrated Information Systems (Software Environments, Multimedia Information Processing), Computer Systems (Dependable Computer Systems, Large-Scale Computer Systems, Advanced Architectural Design), Advanced Computing, Software Engineering (Software Design, Computational Logic), Intelligent Systems (Knowledge Engineering, Inference Systems, Computational Linguistics, Pattern Recognition), Foundation of Computer Science

## Mechanical and Environmental Informatics

<http://www.mei.titech.ac.jp/index-e.html>

## Research Fields

Integrated Informatics for Mechanical and Environmental Systems (Acquisition and Utilization of Information, Informatics for Environmental Control, Informatics for Policy Science, Informatics for Social Systems), Human Information in Mechanical Engineering (Human Information in Mechanical Engineering, Application of Mechanical Information), Information-Driven Systems (Decentralized/Cooperative Control Systems, Sensing for Mechano-Informatics), Environmental Systems Design (Geographic Information Systems, Intelligent Space Design, Intelligent Infrastructure Systems), Foundations of Mechanical and Environmental Informatics, Environmental Monitoring and Modeling Robot Informatics

## Graduate School of Decision Science and Technology (4 Departments)

As of May 1, 2013

[http://www.dst.titech.ac.jp/index\\_en.html](http://www.dst.titech.ac.jp/index_en.html)

Rapid technological developments, from information technology to biotechnology or genetic technology, are bringing society towards a new era of industrialization. While technology has created new opportunities and potentials for human beings, it has also brought ethical and moral issues to the forefront, such as our growing impact on the environment. The Graduate School of Decision Science and Technology aims to identify those problems and formulate concrete ways to solve them by designing and implementing a more effective interface between human society on the one hand, and science and technology on the other.

## Human System Science

<http://www.hum.titech.ac.jp/index-e.html>

## Research Fields

Human Resource Development (Cognitive Science, Educational System Design, Human Resource Development for Science & Technology, Educational Evaluation), Human Dynamics Design (Motor Control and Health Design, Psychosomatic Science, Discursive Practices), Educational Technology (Learning Media Technology, Advanced Learning Systems, Science and Technology Education)

## Value and Decision Science

<http://www.valdes.titech.ac.jp/English>

## Research Fields

Value and Discourse (Value Structure, Representation Function, Value Representation, Discursive Formation), Socio-Mathematical Theory (Social System, Social Measurement, Social Modeling), Decision-Making Process (Collective Decision Making, Politico-Economy, Political Decision)

## Industrial Engineering and Management

<http://www.me.titech.ac.jp/index-e.html>

## Research Fields

Development, Production, and Distribution Engineering (Fundamentals of Technology, Development Strategy, Human- Production Interaction, Process Evaluation), Managerial and Financial Engineering (Managerial Calculation), Mathematics and Information Systems (Management Mathematical Engineering, Management Information Systems), History, Philosophy and Social Studies of Science and Technology (History and Social Studies of Technology, History and Social Studies of Science, Logic and Methodology of Science and Technology)

## Social Engineering

[http://www.soc.titech.ac.jp/major\\_En/index.html](http://www.soc.titech.ac.jp/major_En/index.html)

## Research Fields

National Land and Urban Planning (Urban Planning, National Land and Social System), Public System Design (Public Policy, Mechanism Design, Public Space, Historical Landscapes, Global Environmental Policy), Social Engineering Basic Theory (Decision Theory, Applied Economics, Social System)



## Graduate School of Innovation Management (2 Departments)

As of May 1, 2013

<http://www.mot.titech.ac.jp/english>

Our mission is to educate practical leaders who can manage the innovation cycles, from leading-edge technology development, to intellectual property management and business creation. We also work to produce innovative researchers in the field of technology management and innovation. Faculty members are developing new theories, and are studying at the frontiers of their fields in technology management strategy, intellectual property management, financial engineering, and information & service innovation.

## Management of Technology\*\*

<http://www.mot.titech.ac.jp/english>

## Research Fields

MOT Strategy, Intellectual Property Management, Finance Engineering, Information & Service Innovation, Leading-Edge Science & Technology\*

## Innovation\*\*\*

<http://www.mot.titech.ac.jp/english>

## Research Fields

MOT Strategy, Intellectual Property Management, Finance Engineering, Information & Service Innovation

Notes: \* Conducted in alliance with collaborative professors and their research groups from other departments or schools on campus.

\*\* Professional master's program only.

\*\*\* Doctoral program only.

# INSTITUTE, LABORATORIES, AND CENTERS

## Integrated Research Institute

As of May 1, 2013

<http://www.iri.titech.ac.jp/english/index.html>

The New Integrated Research Institute (IRI) was established in April 2010 to integrate the management of diversified research organizations at Tokyo Institute of Technology. The IRI is comprised of the Chemical Resources Laboratory, the Precision and Intelligence Laboratory, the Materials and Structures Laboratory, the Research Laboratory for Nuclear Reactors, the Imaging Science and Engineering Laboratory, the Materials Research Center for Element Strategy, the Frontier Research Center and the Solutions Research Laboratory. The Executive Vice President for Research is appointed to the position of Director-General of the IRI. The IRI Board, consisting of the IRI Director-General and the directors of various research organizations, sets basic policy for the operation of the IRI and its laboratories are managed accordingly. The Frontier Research Center and the Solutions Research Laboratory serve as platforms for organized collaborative research projects. The new IRI has succeeded in furthering the developments achieved by the former IRI (FY2005-2009) and is supported by the Program to Encourage Strategic Research Centers which falls under the umbrella of MEXT's Coordination Fund for Promoting Science and Technology. It also acts to mobilize university-wide research strengths and encourage collaborative research among Tokyo Institute of Technology's diverse science departments.

### Chemical Resources Laboratory

<http://www.res.titech.ac.jp/~documents/english/index.html>

The main mission of the Chemical Resources Laboratory is to explore both the fundamental sciences as well as the practical applications of the chemical utilization of natural resources. The Laboratory consists of various divisions covering a wide range of chemistry fields (organic chemistry, inorganic chemistry, physical chemistry, biochemistry, catalysis chemistry, polymer chemistry and chemical engineering). We focus on how to effectively use and recycle the limited natural resources of the earth without polluting our environment.

#### Research Fields

Inorganic Resources, Molecular Materials Design, Organic Resources, Bio-Resources, Catalytic Chemistry, Polymer Chemistry, Synthetic Organic Chemistry, Chemical Spectroscopy, Chemical System Synthesis, Process Systems Engineering, Chemistry for Inorganic Materials, Integrated Molecular Engineering, Smart Material Chemistry

#### Resources Recycling Process Laboratory

Basic and applied research on effective exploitation of resources on the earth. Research on utilization of photosynthetic microorganisms

### Precision and Intelligence Laboratory (P&I Lab.)

<http://www.pi.titech.ac.jp/english/>

The P&I Lab seeks to innovate through the synthesis of precision engineering and information science. It was founded in 1954 by combining the Research Laboratories of Precision Machinery and the Research Laboratory of Electrical Science. It is an interdisciplinary research organization with faculty members in information science, electronics, machinery, and materials, focused on contributing to the progress of society by exploring synergies between existing fields and pioneering new ones.

#### Research Fields

Advanced Information Processing (Intelligent Information Processing, Information Processing and Recognition, Human Interface), Advanced Microdevices (Electron Devices, Optical Devices, Applied Acoustic Devices), Precision Machine Devices (Ultrafine Machining, Precision Machine Elements, Integrated Mechanisms), Advanced Mechanical Systems (System Control, Dynamic Systems, Intelligent Systems), Advanced Materials (Materials Design, Mechanics and Engineering Design, Advanced Materials Evaluation), Intellectual Property Utilization System\*\*

#### Photonics Integration System Research Center

<http://vcisel-www.pi.titech.ac.jp/index-e.html>

Basic Research on Devices and Systems Toward Ultrahigh Speed Lightwave Communications and Ultraparallels Opto-Electronics

#### Secure Device Research Center

Interdisciplinary research and creation for secure devices are studied to develop the systems supporting the safety and security of society.

### Materials Research Center for Element Strategy (MCES)

The MCES was established on August 1, 2012 as the organization to strongly facilitate innovative materials research for a sustainable society through cross-disciplinary efforts.

### Materials and Structures Laboratory (MSL)

<http://www.msl.titech.ac.jp/eng/index-e.html>

The MSL is a unique nationwide collaborative research laboratory established in 1996. It is open to researchers from outside Tokyo Institute of Technology who wish to engage in multilateral collaboration and pursue fundamental and applied research on advanced inorganic materials and architectural structures.

#### Research Fields

Novel Functional Ceramics (Super Functional Thin Films, Oxide Nano-Technology, Quantum Functional Materials, Combinatorial Materials Science and Technology, Sugar Catalyst), Basic Research (Thermal Analysis, Crystal Structure Analysis, Electronic Analysis, Superstructure Analysis, Materials Dynamics, Materials for Ultimate Environment), Structural Engineering for Buildings (Materials for Disaster Prevention, Structural Design, Materials for Buildings), Chemical Design\*\*, Numerical Simulation of Impact Phenomena\*\*, Seismic Isolation\*\*

#### Secure Materials Research Center

<http://www.msl.titech.ac.jp/~secure/index.html>

The Secure Materials Research Center carries out research and development of safe and secure materials and fundamental technologies. Other important topics include the innovative development of new materials from abundant resources.

### Research Laboratory for Nuclear Reactors (RLNR)

<http://www.nr.titech.ac.jp/WelcomeE.html>

Founded in 1956, the RLNR researches the scientific principles and applications of nuclear engineering. Although relatively small in scale, the laboratory continues to achieve outstanding research results in nuclear energy and radiation utilization. It plays an important role in both research and the development of human resources in related fields.

#### Research Fields

Energy Engineering (High Density Energy Generation, High-Temperature Thermal-Energy, Energy Conversion, Thermo-Hydrodynamics of Functional Fluids, Environmental Energy Engineering\*\*) Mass Transmutation Engineering (Particle Beam Energy, Fuel Cycle, Transmutation, Mass Separation, Geological Disposal Engineering\*\*) System and Safety Engineering (Ultra-Rapid Energy Phenomena, Energy-System Materials, System Safety, System Design, Treatment Engineering for Nuclear Waste\*\*)

#### International Nuclear Research Cooperation Center

Promotion of International Nuclear Research Cooperation for Peaceful Use of Nuclear Energy and Non-Proliferation

### Imaging Science and Engineering Laboratory

<http://www.isl.titech.ac.jp/english/>

How is information quantified in physical forms (photons, charges, spins, etc.) and transmitted ubiquitously to human beings? The projection of physically-coded information in the spatial areas perceived by human beings gives rise to the concept of information imaging. The pursuit of such imaging is critical for both fundamental understanding in the sciences and for subjective use. Faculty members from physics, chemistry, electrical engineering, and information science collaborate on research and activities.

#### Research Fields

Image Recording, Image Analysis, Imaging Systems, Applied Imaging, Intelligent Systems, E-Government Systems-Care Engineering by NTT-DATA Corporation

### Solutions Research Laboratory

<http://www.ssr.titech.ac.jp/english/index.html>

The Solutions Research Laboratory addresses social and industrial issues. It works on them in cooperation with members from both Tokyo Institute of Technology and external organizations.

#### Research Centers

The International Research Center of Advanced Energy Systems for Sustainability and the Advanced Research Center for Social Information Science and Technology

#### Projects

Green ICE Initiative, Nuclear Fuel Cycle, Neuro-Rehabilitation, Bio-Mass Chemical Resources and Clean Environment, etc.

### Frontier Research Center

<http://www.frcr.titech.ac.jp/english/>

The Frontier Research Center was restructured in April 2010 to focus on promoting frontier research. It is highly active in various fields at Tokyo Institute of Technology and also collaborates with other universities, research organizations, industries and the government. The Center provides incentives and assistance to those who are leading such research and its exhibition space frequently exhibits to the public the results of their research activities.



## INSTITUTE, LABORATORIES, AND CENTERS

## RESEARCH AND SERVICE CENTERS

As of May 1, 2013

## Health Service Center

<http://www.titech.ac.jp/english/about/organization/health.html>

## Main Activities

This Health Service Center provides comprehensive health care services for students and staff, promoting physical and mental well-being of all at Tokyo Institute of Technology and maintaining environmental hygiene on the campuses.

## Global Scientific Information and Computing Center (GSIC)

<http://www.gsic.titech.ac.jp/en>

## Main Activities

The roles of GSIC are threefold. It is one of the leading supercomputing centers in Japan, conducting research on advanced High-Performance Computing as well as facilitating one of the fastest supercomputers in the world in the series of TSUBAME supercomputers, which was ranked No.4 in the world in 2010, and is part of the Japanese national HPCI (High-Performance Computing Infrastructure). Secondly, it serves as a centerpiece of Tokyo Institute of Technology's IT Infrastructures for education, research and administration, including the campus-wide network SuperTITANET, institutional AAA system, cloud hosting and storage services, and SW license management. Last but not least it leads Tokyo Institute of Technology's efforts to utilize advanced IT for international collaborations with leading institutions in the world.

## Research Center for Educational Facilities

<http://www.rcfef.g4.titech.ac.jp/center/index.htm>

## Main Activities

The Research Center for Educational Facilities researches the planning, design, and management of educational, cultural, academic, and sport facilities. It aims to improve their quality, providing all user groups with larger utility while serving life-long learning in the community.

## Volcanic Fluid Research Center

<http://www.ksvo.titech.ac.jp/~eng/index.html>

## Main Activities

The Volcanic Fluid Research Center performs research on volcanology and observes Kusatsu-Shirane and other active volcanoes. The center also provides field studies on volcanology for students.

## International Student Center

<http://www.ryu.titech.ac.jp/english/index.html>

## Main Activities

The International Student Center offers Japanese language classes and lectures about Japanese culture, consultation services to students, and promotes and supports the study abroad of Japanese students. In addition, it also conducts research and surveys in order to make its programs more effective and meaningful.

## Quantum Nanoelectronics Research Center

<http://www.pe.titech.ac.jp/qnec/index.shtml>

## Main Activities

The Quantum Nanoelectronics Research Center conducts research on photonic and electronic devices, opto-electronic devices using nanotechnology, quantum effects, development and processing of crystal-growing technologies, physics in quantum effect devices, and the design of integrated systems.

## Foreign Language Research and Teaching Center

[http://www.flc.titech.ac.jp/index\\_e.html](http://www.flc.titech.ac.jp/index_e.html)

## Main Activities

The Foreign Language Research and Teaching Center runs the foreign language courses at the university and conducts basic and applied research on linguistic theories, while exploring new methods of teaching foreign languages. Also acts as a medium for cross-cultural development on campus.

## Center for Biological Resources and Informatics

<http://www.grc.bio.titech.ac.jp/english/>

## Main Activities

The Center for Biological Resources and Informatics consists of the research and support divisions. The research division is mainly involved in bioinformatics research on proteins, genomes and RNA. The support division provides research facilities and basic training programs for gene manipulation and animal care and use.

## Center for Liberal Arts

## Main Activities

The Center for Liberal Arts was established to improve the humanities curriculum for common undergraduate subjects. The Center's academic staff are active members of society whose lectures and seminars are highly prized by students.

## Radiation Research and Management Center

## Main Activities

The Radiation Research and Management Center supports research utilizing radioactive isotopes and X-Ray generators and/or accelerators, which can be conducted at on-site experimental facilities in radiation controlled areas. The center is a key organization at Tokyo Institute of Technology for providing radiation safety management and radiation-related education and training.

## Global Edge Institute

<http://www.global-edge.titech.ac.jp>

As of May 1, 2013

The Global Edge Institute was founded in 2006 as a tenure-track and mentoring system. Excellent young researchers from all over the world are trained in an English-language environment, with the aim of realizing their independent research and creating an outstanding international research community. These junior faculty members are provided with start-up funds for the first two years before working towards the acquisition of competitive funds by the third. An annual evaluation leads to a final assessment in the fifth year, which determines tenure, with either associate or full professorship.

## Center for the Study of World Civilizations

<http://www.cswc.titech.ac.jp/home.html>

As of May 1, 2013

Genuine creativity and originality are indispensable to any cutting-edge pursuit of science or technology. Sheer knowledge and data are essential yet insufficient in isolation. Every student must also be able to intuitively create things in the age-old hands-on way. We know of no shortcuts for constructing one's own hypotheses in this way while gaining fresh perspectives.

Center for the Study of World Civilizations to open direct access to the sphere of the Arts and Philosophy via first-class practicing artists and teachers from around the world. Our instructors are committed to the highest level of learning based on earnest self-questioning to gain insights. We firmly believe that we can learn together in ways you will not easily experience outside Tokyo Tech.

## Innovator and Inventor Development Platform

As of May 1, 2013

The Innovator and Inventor Development Platform was founded on April 1, 2013 on the success and experience gained from the Young Researchers Training Program Innovation and the Career Development Program for Foreign Students.

The mission of the Platform is to contribute to science and technology development by nurturing talented individuals with the ability to understand social needs from a global perspective. By collaborating with organizations both within and outside the Institute, it offers integrated training programs and other opportunities to help students acquire the capabilities and insight needed to achieve their career goals.

For this purpose, the Platform has established three academies corresponding to various potential career paths available to Institute graduates. The academies work closely with the undergraduate and graduate schools to provide students with the specialized knowledge and skills necessary to pursue their desired careers.

The Platform also liaises with industry and government organizations and plays a central role in providing career support and mentoring services for all graduate students of the Institute. Additionally, it is striving to create a graduate-level career development system which it will expand to other universities that share similar qualities with the Institute to establish a cooperative body specializing in the cultivation of new talent.

## Career Advancement Professional School

As of May 1, 2013

In order to proactively explore the connection between society and science-and-technology-based policy recommendations, the Career Advancement Professional School aims to develop original continued education from the perspective of enhancing contributions to and cooperation with the community. It provides continuing-education programs in the fields of science and technology not only to pursue advanced technology, at which Tokyo Institute of Technology has always excelled, but also to broaden people's knowledge, as well as accommodate industry's needs for advanced techniques.

## Earth-Life Science Institute (ELSI)

<http://www.elsi.jp/en/>

Earth-Life Science Institute (ELSI) was launched on December 7, 2012 after being selected by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to participate in its World Premier International Research Center Initiative (WPI). This initiative reflects the Japanese government's effort to build globally outstanding science research centers in Japan.

ELSI's aim is to answer the fundamental question that has captured humanity's imagination: when and where did life originate and how did it evolve? We at ELSI will broaden the discussion to focus equally strongly on Earth and Life as the two are inseparable.

Outline of research

- (A) Formation of the Earth
- (B) Origin of Life
- (C) Evolution of the Earth-Life System
- (D) Bio-Planets in the Universe

## Technical Department

As of May 1, 2013

With the increasing sophistication required for carrying out research, providing a specialized and expert support staff to research students at Tokyo Institute of Technology has become a necessity. To accomplish this, the Technical Department consolidates technical staff at the university level and ensures specialized staff are available in specific technological areas to provide effective professional service and instruction to researchers. This department is comprised of ten technical centers, and contributes to the development of Tokyo Institute of Technology.

## Gender Equality Center

As of May 1, 2013

The Gender Equality Center at Tokyo Institute of Technology works to support university members in the creation of an environment of mutual respect in which male and female students and staff can express their full potential. Actions are implemented according to "Tokyo Tech's Policy to Promote Gender Equality" and the "Basic Guidelines for Promoting Gender Equality." Measures include a support program of baby sitters for all faculty and staff members as well as for students, and the hiring of assistants or adjunct instructors to help with research and teaching to provide relief for those with child and elder-care needs. The Center also organizes various events to encourage girls to take up science and engineering studies as well as encourage young female researchers to continue to pursue their research in science and technology.

## Public Outreach Office

As of May 1, 2013

In order to enhance public outreach further, the Public Outreach Office was established in April 2013 through the consolidation of the fund-raising Tokyo Tech Fund and alumni-community-building Tokyo Tech 130th Anniversary Project. The mission of the Public Outreach Office is to 1) formulate a basic policy and strategy for public outreach, 2) facilitate organized cooperation among sections and projects at the Institute in order to realize and support public outreach activities, 3) strengthen and expand the network among alumni, industry and the society, and 4) maintain and develop the Tokyo Tech Fund. As for future activities targeting stakeholders, including alumni, industry, current students, parents of current students, academic and administrative staff, Japanese society and the international community, the Public Outreach Office will maintain and promote a network between stakeholders and activate communication by:

- implementing cooperative programs,
- creating opportunity for exchange and communication, and
- making known Tokyo Tech educational and research activities.

The Public Outreach Office will realize social contributions through the above activities, with the aim of gaining support for the Institute, which would in turn lead to an expansion of supporters of the Tokyo Tech Fund.



Engaging with the local community via science:  
Tokyo Institute of Technology collaborates  
with Shimizukubo Elementary School on science projects

## Energy Conservation Promotion Office

As of May 1, 2013

The objective of the Energy Conservation Promotion Office is to raise awareness about the need to reduce energy consumption and to encourage faculty, staff and students to engage in energy conservation together. This office plans and implements a set of measures for energy conservation while coordinating and communicating with all parties and collecting information to maximize energy savings at Tokyo Institute of Technology.

## Research Administration Center

As of October 4, 2013

The Research Administration Center carries out the revision of research environments by utilizing management personnel in charge of research strategy to promote the acceleration of competitive research, create pioneering research fields and prepare research environments on a par with international standards. The center bases its actions on the results of situational analyses of the Institute's own research activities which are aimed at carrying out research activities surpassing global standards.

The center also carries out the promotion of collaborative international research; the support for the creation of international academic papers; and the promotion of environmental considerations for receiving researchers from overseas. Other areas of activity include the promotion of large-scale project base formation and joint research in different fields and issue-oriented research; the conducting of survey analyses for research reinforcement through database introductions; and, the support for acquisition of external funding for research costs etc., among others.



First Homecoming Day was a great success

# INSTITUTE, LABORATORIES, AND CENTERS

## J2 and J3 Buildings: Joint Lab/Office Building and University-Industry Cooperation Tower

The J2 Building, home to experimental laboratories and offices, and the J3 Building, the University-Industry Cooperation Tower, located at Suzukakedai Campus provide a comprehensive research space where high-level experiments and research are conducted in several fields.

The recently constructed J3 Building has: a base-isolated structure integrated with that of the J2 Building, which dampens seismic vibrations in the event of an earthquake; universal design features making it accessible to all; and, an emergency shower system creating a safe and secure environment for education and research. With the establishment of the Tokyo Tech J3 Rental Laboratories Project and new initiatives to encourage collaboration with industry, it is expected that many exciting developments and contributions to the global community will be forthcoming from the Suzukakedai Campus.



## North Building 3 (Environmental Energy Innovation Building)

North Building 3 at the Ookayama Campus emits 60% less carbon dioxide than most buildings and is nearly self-sufficient at producing the energy it consumes, making it unparalleled in the world. The installation of high-efficiency equipment produces significant energy savings. One of the research building's unique features is its 'solar envelope,' a sloping steel framework covered with high-density solar panels enveloping the building's south, west and top sides. The 'solar envelope' maximizes the space available for photovoltaic power generation. The panels coupled with another feature, a renewable/fossil-fuel composite distributed-model-type power generation fuel cell, contribute to the building's energy self-sufficiency. Additionally, the structure of North Building 3 has a special seismic-energy absorbing brace or 'basket' built into its peripheral walls that is designed to withstand a large-scale earthquake. Finally, the graceful architecture of the building harmoniously blends in with the surrounding urban space.

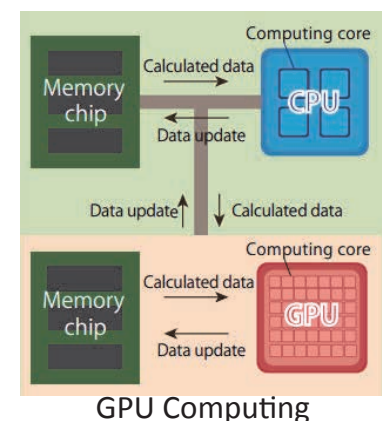
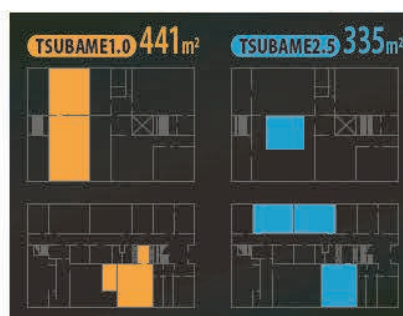
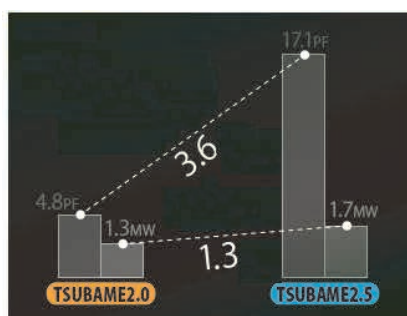


## TSUBAME2.5: No.1 in Japan in Single Precision FP, 17 Petaflops

- Applications in packaging technologies based on Tokyo Tech's diverse fundamental research
- Creating epochal scientific achievements
  - The Greenest Production Supercomputer in the World, ranked 4th on the TOP 500 list
  - Only 2/3 the footprint of TSUBAME1



TSUBAME Thin Node



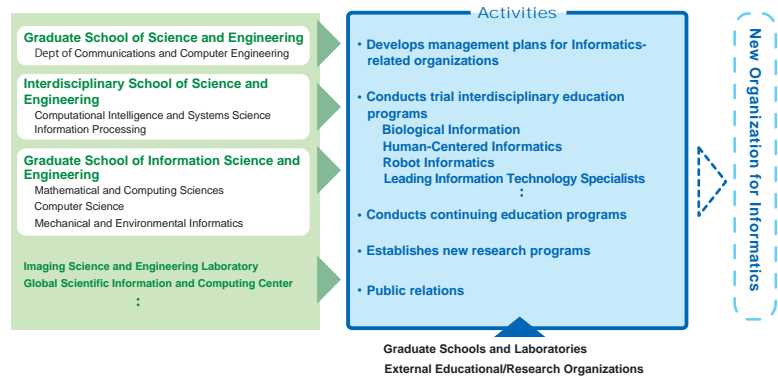
GPU Computing



## Inter-Departmental Organization for Informatics

The Inter-Departmental Organization for Informatics promotes education based on solutions to complex and varied research challenges in informatics through cooperation among different faculty members from a variety of departments.

Informatics-related organizations at Tokyo Institute of Technology



## Inter-Departmental Organization for Environment and Energy

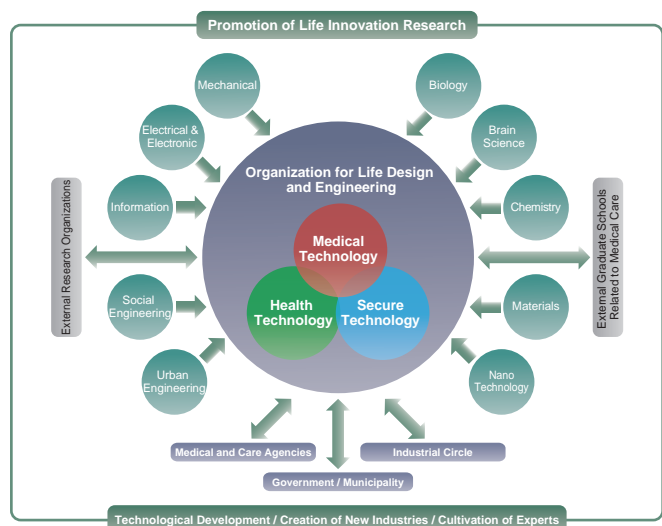
Two hundred and thirty faculty members in the fields of environment and energy gathered to form the Inter-Departmental Organization for Environment and Energy. The purpose of the organization is to foster, through interdisciplinary cooperation within Tokyo Institute of Technology, groundbreaking innovative developments in environment- and energy-related technologies. By fusing and restructuring the traditional separation of disciplines, the organization will be able to utilize human resources and specialized knowledge in new ways, contributing to the resolution of future environmental and energy issues.



## Organization for Life Design and Engineering

The Organization for Life Design and Engineering enjoys the support of faculty members from all research fields at Tokyo Institute of Technology. It has established three broad research groupings: medical technology, health technology, and secure technology. The organization's activities include:

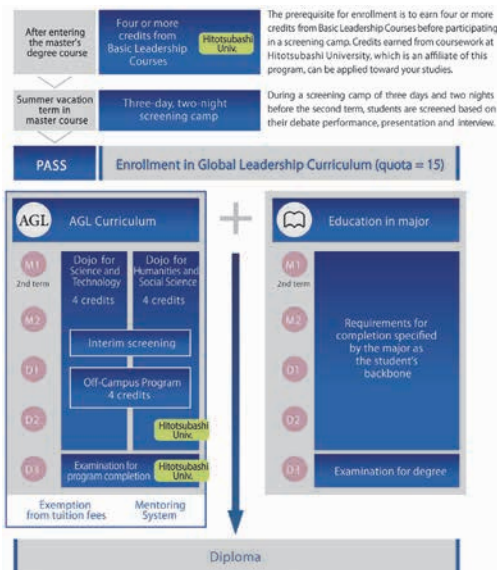
- the establishment of an information network between faculties and a researcher platform for new research development based on a fusion of diverse ideas
- the organization of on- and off-campus seminars, workshops, and symposia for information exchange and R&D trend spotting related to life innovations
- the promotion of collaborative research by boosting cooperation with medical institutions and external research organizations
- the implementation of cross-sectional education programs for life innovation by frequently organizing university-industry forums and regional technological seminars
- the fostering of experts who can inspire R&D and spearhead necessary innovations to deal with an aging society and a falling birthrate.



# INSTITUTE, LABORATORIES, AND CENTERS

## Academy for Global Leadership (AGL)

The Academy for Global Leadership cultivates selected Ph.D. candidates and develops their ability to become top leaders who can effectively take the initiative in business, economics, politics, and academia throughout the world. The academy was launched in 2011 and was further developed with the cooperation of Hitotsubashi University in 2013. AGL students do coursework related to their majors in order to acquire advanced knowledge and skills, while belonging to two Dojo Programs: the Dojo for Science and Technology and the Dojo for Economics and Humanities. The Dojo Programs hone a student's ability to build a consensus, an essential skill for anyone seeking to lead society, through debates and teamwork with students of various specializations.



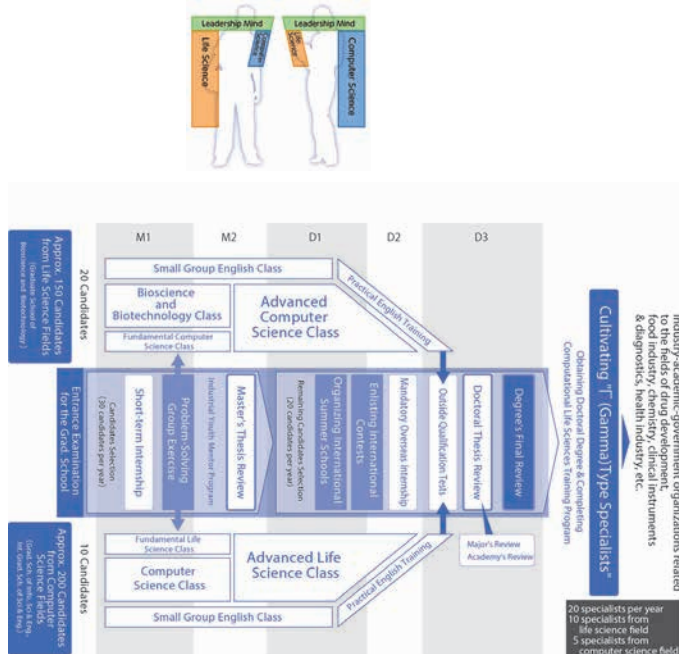
## Academy for Co-creative Education of Environment and Energy Science (ACEEES)

ACEEES has expertise in the fields of environment and energy research and aims to nurture human resources that will lead the **2S** (Safety, Sustainability)×**3E** (Energy, Economy, Environment) Era. It fosters global leaders who are equipped with a bird's-eye perspective, allowing them to quickly and accurately perceive resolutions to issues and lead the way with new innovations.



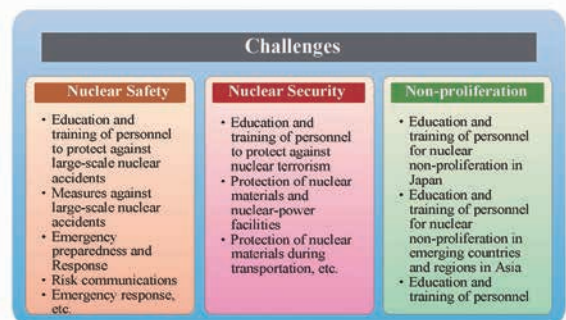
## Education Academy of Computational Life Sciences (ACLS)

The ACLS aims to train potential leaders in the disciplines of computer science and the life sciences, through a five-year combined master's and doctoral training course. Graduates will be prepared to play an active international role in multiple fields. We produce "T-(gamma)-type specialists" who have a deep practical knowledge in their specialty area along with relevant knowledge and experience in their secondary area.

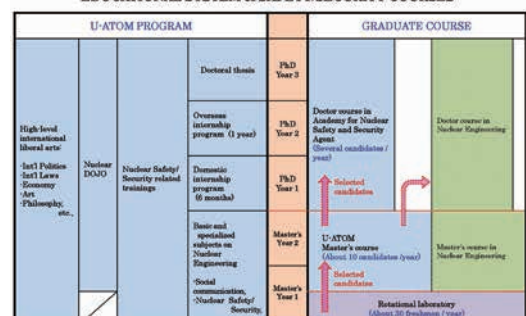


## Academy for Global Nuclear Safety and Security Agent

The Academy for Global Nuclear Safety and Security Agent has the important role of educating experts who will be prepared to lead as international specialists in high-level negotiations in industry, academia and international societies in the fields of nuclear safety and security. Topics include the proliferation of nuclear materials, nuclear terrorism, large-scale nuclear disasters and emergency radiation exposure, among others.



### EDUCATIONAL SYSTEM of SAFETY/SECURITY COURSES



# INSTITUTE LIBRARIES, TOKYO TECH HIGH SCHOOL OF SCIENCE AND TECHNOLOGY, AND ACCOMMODATIONS

## Institute Libraries (Ookayama Library and Suzukakedai Library)

[http://www.libra.titech.ac.jp/welcome\\_e.php](http://www.libra.titech.ac.jp/welcome_e.php)

The Institute Libraries annually collect a great number of international journals, e-journals and conference proceedings in the fields of science and technology. The libraries have served as one of the government-appointed National Centers for Overseas Periodicals, while supporting and facilitating the research of users both on and off campus. The library website provides the ability to search multiple databases, and since 2007 the Tokyo Tech Research Repository (T2R2) has been aggregating the research activities of the Institute in a unified system of data storage, management and dissemination. The new library building opened on the Ookayama Campus in July 2011.



New Library (2011)

## Museum, Tokyo Institute of Technology

<http://www.cent.titech.ac.jp>

Opened in 1987, the Centennial Hall was reorganized in 2011 as the Museum to convey Tokyo Institute of Technology's achievements to the wider community. The Museum collects and preserves the highlights of Tokyo Institute of Technology's activities since the time of its founding 130 years ago, as well as records the outcomes of its education and research in the fields of science and technology. The Museum also conducts research on the value of its historical materials and studies how to utilize them. It welcomes the public to its permanent and temporary exhibitions. The museum's collection is displayed at two locations: in the Centennial Hall at the Ookayama Campus and in the Frontier Research Center's exhibition space at the Suzukakedai Campus.



## Tokyo Tech High School of Science and Technology

As of May 1, 2013

<http://www.hst.titech.ac.jp/english>

About two percent of all high schools in Japan are specially supported by the government to promote high standards in science education. Tokyo Institute of Technology's High School of Science and Technology has been officially designated as a Super Science High School (SSH) since 2002, which means that a focus on science and technology is present at all levels of learning, in order to better prepare the students for university and science careers. Indeed a few select students smoothly move on to Tokyo Institute of Technology each year, enjoying the continuity of science education they have been especially prepared for.

	High School of Science and Technology				
	Admission	Enrollment			
		1st year	2nd year	3rd year	Total
Department of Science and Technology	200	196(29)			196(29)
Applied Chemistry Course			40(18)	40(13)	80(31)
Information Systems Course			38(2)	38(2)	76(4)
Mechanical Systems Engineering Course			40(7)	41(4)	81(11)
Electrical and Electronics Course			40(3)	41(3)	81(6)
Architectural Design Course			36(10)	34(9)	70(19)
Total	200	196(29)	194(40)	194(31)	584(100)

Note: Figures given in parentheses represent the number of female students.

## International House and other Accommodations

Tokyo Institute of Technology offers designated accommodation for students and researchers, providing easy access to each of the three campuses.

### International House

Located at the south end of Ookayama Campus, International House provides researchers from overseas with an apartment to live in, supporting residents in their daily lives in Japan.

### Umegaoka Dormitory

Accommodation for international students, located in Aoba-ku, Yokohama. It is within walking distance from Fujigaoka Station on the Tokyu-Den'entoshi Line.

### Shofu Dormitory

Another dormitory for international students, also located in Aoba-ku, Yokohama. The nearest station is Aobadai on the Tokyu Den'entoshi Line.

### Senzokuike International House

A women's dorm for both international and domestic students. Women researchers may also be accommodated. It is located within a 15-minute walk from the Ookayama Campus.

### Shofu Gakusha (Dorm)

A dormitory for domestic male students, located next to Shofu Dormitory.

### Tokyo Tech Nagatsuta House

A dormitory for international and domestic students, located in Midori-ku, Yokohama. The nearest station is Nagatsuta on the Tokyu Den'entoshi Line.

### Tokyo Tech Aobadai House

A men's dorm for both international and domestic students. Male researchers may also be accommodated. It is located inside Shofu Gakusha.

### Minamitsukushino House

A dormitory for international and domestic students, researchers' families may also be accommodated. It is located within a 5-minute walk from Suzukakedai Station.

### Suzukakedai House

A dormitory for international and domestic students and researchers. It is located within walking distance from Suzukakedai Station on the Tokyu -Den'entoshi Line.

### Tokyo International Exchange Center

A dormitory for international students and researchers, located in Aomi, Koto-ku. It is located within a 3-minute walk from Fune-no-Kagakukan Station on the New Transit Yurikamome Line.

### Komaba International House

A dormitory for international students, located in Meguro-ku, Tokyo. It is located within a 5-minute walk from Komaba-Todaimae Station on the Keio Inokashira Line.

House	Resident	Type of Accommodation	Number of Rooms	Area (m <sup>2</sup> )
International House	International Researchers	Family	12	56
		Couple	15	39
		Single	73	18
Umegaoka Dormitory	International Students	2 persons	10	40
		Single	50	12.5
Shofu Dormitory	International Students	2 persons	5	40
		Single	46	12.5-13.75
Senzokuike International House	International and Domestic Students and Researchers (women only)	2 persons	48	14.49-17.76
		Single	6	17.76
Shofu Gakusha	Domestic Male Students	Single	144	13
Tokyo Tech Nagatsuta House	International and Domestic Students	Single	124	7
Tokyo Tech Aobadai House	International and Domestic Students and Researchers (men only)	Single	16	13
Minamitsukushino House	International and Domestic Students and Researchers	Family	2	55.7
		Single	30	18
Suzukakedai House	International and Domestic Students and Researchers	Single	45	18
Tokyo International Exchange House	International Students and Researchers	Single	18	30
Komaba International House	International Students	Single	70	15.08



## STAFF/STUDENT NUMBERS

## Number of Staff

As of May 1, 2013

		The Board				Research and Teaching Staff								Office and Technical Staff				Total
		President	Executive Vice President	Auditor	Sub Total	Professor	Associate Professor	Lecturer	Assistant Professor	Research Associate	High School Teacher	High School Assistant	Sub Total	Administrative Staff	Technical Staff	Other	Sub Total	
The Board		1	4	2	7													7
Graduate School	Science and Engineering (Science)					46	36		60	2			144					144
	Science and Engineering (Engineering)					105	98	1	110	1			315					315
	Bioscience and Biotechnology					22	19	4	36	2			83					83
	Interdisciplinary Graduate School of Science and Engineering					48	44	6	38	2			138					138
	Information Science and Engineering					24	23	2	20				69					69
	Decision Science and Technology					28	24		23				75					75
	Innovation Management					8	3		1				12					12
Chemical Resources Laboratory						10	12	2	24				48					48
Precision and Intelligence Laboratory						15	10		18				43					43
Materials and Structures Laboratory						10	11		9				30					30
Research Laboratory for Nuclear Reactors						8	11		12				31					31
Imaging Science and Engineering Laboratory						6	4		2				12					12
Frontier Research Center						3							3					3
Solutions Research Laboratory						4							4					4
Research and Service Centers						41	31	3	16	1			92			4	4	96
High School of Science and Technology											43	6	49					49
Administration Bureau														472		2	474	474
Technical Department															92		92	92
Total		1	4	2	7	378	326	18	369	8	43	6	1,148	472	92	6	570	1,725

## Project-Based/Adjunct Staff

As of May 1, 2013

			Professor	Associate Professor	Lecturer	Assistant Professor	Other	Total	Visiting Professor	Visiting Associate Professor	Total
Instructors (including professors)	206	→	90	46	7	42	20	205		1	1
Researchers (including research professors)	315	→	8	8	1	32	266	315			
Lecturers	212	→					3	3	154	55	209
Education/Research Assistants	67										
Clerical Staff (fixed-term)	254										
Technical Staff (fixed-term)	92										
Research Associates on Projects	21										
Assistants (short-term)	518	→					518	518			
Total	1,685	Total	98	54	8	74	1,243	1,475	154	56	210

## Research Staff in FY2012

	Researchers from Industrial Firms (Sponsored Research)	Researchers from Industrial Firms (Collaborative Research)	Trainees from Private Universities and Others	Project Researchers	JSPS Fellows (Japan Society for the Promotion of Science)				Total
					PD	DC2	DC1	Total	
Graduate School of Science and Engineering (Science)		3			12	21	14	47	50
Graduate School of Science and Engineering (Engineering)	20	30			9	13	16	38	88
Graduate School of Bioscience and Biotechnology	3	4			3	8	3	14	21
Interdisciplinary Graduate School of Science and Engineering		18			13	13	22	48	66
Graduate School of Information Science and Engineering		9			5	4	7	16	25
Graduate School of Decision Science and Technology					5	1	3	9	9
Graduate School of Innovation Management	2				1			1	3
Chemical Resources Laboratory	2	15			1			1	18
Precision and Intelligence Laboratory	1	4						0	5
Materials and Structures Laboratory	1	1			1			1	3
Research Laboratory for Nuclear Reactors		1						0	1
Imaging Science and Engineering Laboratory								0	0
Frontier Research Center	2	12			1			1	15
Solutions Research Laboratory		3						0	3
Global Scientific Information and Computing Center								0	0
Center for Biological Resources and Informatics								0	0
Quantum Nanoelectronics Research Center					1			1	1
Research Project on Nanofiber Technology								0	0
Innovative Research Initiatives								0	0
Total	31	100	0	0	52	60	65	177	308

## Visiting Researchers in FY2012

Affiliation	
Graduate School of Science and Engineering (Science)	15
Graduate School of Science and Engineering (Engineering)	58
Graduate School of Bioscience and Biotechnology	9
Interdisciplinary Graduate School of Science and Engineering	45
Graduate School of Information Science and Engineering	12
Graduate School of Decision Science and Technology	18
Chemical Resources Laboratory	8
Precision and Intelligence Laboratory	9
Materials and Structures Laboratory	12
Research Laboratory for Nuclear Reactors	15
Frontier Research Center	7
Total	208

Country and Area		Country and Area		Country and Area				
Asia	China	39	North America	U.S.A.	10	Europe	Austria	1
	Korea	18		Canada	7		Sweden	1
	India	18		Argentina	1		Slovakia	1
	Indonesia	13	Peru	1	Serbia		1	
	Thailand	9	Germany	9	Hungary		1	
	Vietnam	8	Italy	6	Belgium		1	
	Taiwan	7	Spain	6	Poland		1	
	Malaysia	6	Finland	6	Romania		1	
	Japan	5	United Kingdom	3	Russia		1	
	Cambodia	4	Czech Republic	3	Australia		3	
	Bangladesh	2	Uzbekistan	2	Iran	2		
	Philippines	1	Netherlands	2	Saudi Arabia	1		
	Singapore	1	France	2	Turkey	1		
	Myanmar	1	Lithuania	2				
						Total 41	208	

## STAFF/STUDENT NUMBERS

## Undergraduate Students

As of May 1, 2013

Department	Admissions Quotas	Enrollment										Grand Total	
		1st-year		2nd-year		3rd-year		4th-year		Total			
		M	F	M	F	M	F	M	F	M	F		
School of Science	Total	185	194 (0)	13 (1)	173 (3)	13 (1)	180 (4)	19 (0)	261 (6)	17 (2)	808 (13)	62 (4)	870 (17)
	Mathematics	25			25 (0)	1 (0)	27 (1)	0 (0)	44 (1)	4 (1)	96 (2)	5 (1)	101 (3)
	Physics	54			56 (1)	4 (0)	57 (1)	7 (0)	71 (3)	3 (0)	184 (5)	14 (0)	198 (5)
	Chemistry	37			28 (0)	3 (1)	35 (1)	8 (0)	34 (1)	5 (1)	97 (2)	16 (2)	113 (4)
	Information Science	34			33 (1)	1 (0)	36 (1)	1 (0)	62 (1)	1 (0)	131 (3)	3 (0)	134 (3)
	Earth and Planetary Sciences	35			31 (1)	4 (0)	25 (0)	3 (0)	50 (0)	4 (0)	106 (1)	11 (0)	117 (1)
	1st-year		194 (0)	13 (1)							194 (0)	13 (1)	207 (1)
School of Engineering	Total	733	730 (27)	77 (6)	665 (24)	76 (4)	718 (30)	86 (7)	847 (33)	90 (13)	2,960 (110)	329 (34)	3,289 (144)
	Metallurgical Engineering	33	90 <sup>*2</sup>	7 <sup>*2</sup>	27 (0)	3 (0)	34 (1)	7 (0)	35 (2)	6 (1)	96 (3)	16 (1)	112 (4)
	Organic and Polymeric Materials	20			18 (1)	3 (0)	22 (1)	2 (0)	25 (0)	2 (0)	65 (2)	7 (0)	72 (2)
	Inorganic Materials	30			31 (0)	5 (0)	25 (0)	4 (0)	38 (0)	4 (0)	94 (0)	13 (0)	107 (0)
	Chemical Engineering	70	105 <sup>*3</sup>	14 <sup>*3</sup>	59 (0)	9 (0)	72 (6)	11 (2)	80 (1)	15 (5)	211 (7)	35 (7)	246 (14)
	Polymer Chemistry	30			26 (0)	8 (0)	31 (0)	5 (0)	35 (1)	3 (1)	92 (1)	16 (1)	108 (2)
	Mechanical Engineering and Science	52	231 <sup>*4</sup>	17 <sup>*4</sup>	55 (4)	1 (0)	52 (2)	4 (0)	52 (0)	7 (1)	159 (2)	12 (5)	171 (7)
	Mechanical and Intelligent Systems Engineering	40			36 (2)	3 (0)	32 (1)	3 (0)	52 (3)	1 (0)	120 (6)	7 (0)	127 (6)
	Mechano-Aerospace Engineering	40			41 (1)	3 (0)	46 (0)	1 (0)	37 (0)	1 (0)	124 (1)	5 (0)	129 (1)
	Control and Systems Engineering	43			48 (2)	5 (0)	53 (3)	3 (0)	52 (5)	5 (2)	153 (10)	13 (2)	166 (12)
	Industrial and Systems Engineering	36			35 (1)	3 (0)	33 (0)	4 (1)	37 (0)	7 (0)	105 (1)	14 (1)	119 (2)
	International Development Engineering (former)				0 (0)	0 (3)	0 (0)	0 (0)	1 (0)	1 (1)	1 (0)	1 (1)	2 (1)
	International Development Engineering	40			23 (5)	3 (1)	20 (5)	4 (2)	44 (11)	2 (2)	87 (21)	9 (7)	96 (28)
	Electrical and Electronic Engineering	82	224 <sup>*5</sup>	13 <sup>*5</sup>	70 (3)	4 (0)	102 (6)	4 (0)	111 (4)	1 (0)	283 (13)	9 (1)	292 (14)
	Computer Science	102			104 (3)	4 (0)	92 (4)	7 (1)	126 (3)	9 (0)	322 (10)	20 (1)	342 (11)
	Civil Engineering (former)		80 <sup>*6</sup>	26 <sup>*6</sup>	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	0 (0)	1 (1)	0 (0)	1 (1)
	Civil and Environmental Engineering	34			30 (1)	2 (0)	30 (0)	4 (0)	37 (1)	2 (0)	97 (2)	8 (0)	105 (2)
	Architecture and Building Engineering	45			30 (1)	15 (0)	37 (1)	17 (0)	45 (1)	14 (0)	112 (3)	46 (0)	158 (3)
	Social Engineering	36			32 (0)	5 (0)	37 (0)	6 (1)	39 (0)	10 (0)	108 (0)	21 (1)	129 (1)
	1st-year	20 <sup>*1</sup>	730 (27)	77 (6)							730 (27)	77 (6)	807 (33)
	School of Bioscience and Biotechnology	Total	150	133 (0)	30 (1)	108 (0)	28 (1)	122 (3)	38 (1)	138 (1)	32 (2)	501 (4)	128 (5)
Bioscience		75			53 (0)	8 (0)	59 (1)	9 (0)	73 (1)	9 (0)	185 (2)	26 (0)	211 (2)
Biotechnology		75			55 (0)	20 (1)	63 (2)	29 (1)	65 (0)	23 (2)	183 (2)	72 (4)	255 (6)
1st-year		10 <sup>*1</sup>	133 (0)	30 (1)							133 (0)	30 (1)	163 (1)
Grand Total		1,068	1,057 (27)	120 (8)	946 (27)	117 (6)	1,020 (37)	143 (8)	1,246 (40)	139 (17)	4,269 (127)	519 (43)	4,788 (170)

Notes: 1) An asterisk (\*) represents the number of transfer students moving into the 3rd-year.  
 2) Figures given in parentheses represent the number of international students.

	School of Science		School of Engineering										School of Bioscience and Biotechnology	
	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Group 7	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1st-year	194	13	90	7	105	14	231	17	224	13	80	26	133	30

Note: Regarding the relationship between the groups and the departments, please refer to page 30.

## Research Students

As of May 1, 2013

	Graduate School of Science and Engineering (Science)	Graduate School of Science and Engineering (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	Chemical Resources Laboratory	Precision and Intelligence Laboratory	Materials and Structures Laboratory	Research Laboratory for Nuclear Reactors	Imaging Science and Engineering Laboratory	Other Research Centers	Total
Japanese Students	1	16	0	4	1	1	0	0	2	0	0	2	2	29
International Students	0	15	1	13	5	5	2	2	7	5	1	0	8	64
Total	1	31	1	17	6	6	2	2	9	5	1	2	10	93



As of May 1, 2013

## Graduate Students

	Department	Admitted	Master's Program							Master's Program Total	Admitted	Doctoral Program								Doctoral Program Total
			Enrollment						Enrollment											
			1st-year		2nd-year		Total		1st-year			2nd-year		3rd-year		Total				
			M	F	M	F	M	F	M			F	M	F	M	F	M	F		
Graduate School of Science and Engineering	Total	664	645(55)	105(29)	700(59)	95(25)	1,345(114)	200(54)	1,545(168)	212	142(40)	36(22)	129(43)	28(18)	208(76)	32(24)	479(159)	96(64)	575(223)	
	Mathematics	22	25		26	1	51	1	52	8	4	1(1)	5		10	1	19	2(1)	21(1)	
	Physics (Particle, Nuclear and Astro-Physics)	23	20	4(1)	27	3	47	7(1)	54(1)	8	6(1)	1(1)	10		8(1)		24(2)	1(1)	24(3)	
	Physics (Condensed Matter Physics)	35	30(1)	2	33		63(1)	2	65(1)	12	6(1)	1	3		12	1(1)	21(1)	2(1)	23(2)	
	Chemistry	41	33	11	39	5	72	16	88	12	12	1(1)	12(1)	3	18	3(2)	42(1)	7(3)	49(4)	
	Earth and Planetary Sciences	19	12	6	16	3	28	9	37	7	3	3	6(1)	2	13		22(1)	5	27(1)	
	Chemistry and Materials Science	32	31(2)	6	37(1)	6	68(3)	12	80(3)	10	6(1)	1	2	1	8		16(1)	2	18(1)	
	Metallurgy and Ceramics Science	43	42(2)	6(3)	42(3)	8(1)	84(5)	14(4)	98(9)	13	10(4)	1(1)	8(4)	2(2)	11(8)	1(1)	29(16)	4(4)	33(20)	
	Organic and Polymeric Materials	51	48(1)	9(3)	56(8)	9(3)	104(9)	18(6)	122(15)	15	11(4)	7(3)	15(3)	1(1)	15(4)	10(5)	41(11)	18(9)	59(20)	
	Applied Chemistry	27	20	6(1)	26	4(1)	46	10(2)	56(2)	7	9		1		5	0	15	0	15	
	Chemical Engineering	28	30(1)	1	30(2)	1	60(3)	2	62(3)	9	4(1)	3(3)	4(2)	1(1)	4(5)	1(1)	12(8)	5(5)	17(13)	
	Mechanical Sciences and Engineering	44	43(3)	1	49(1)	3	92(4)	4	96(4)	12	4(1)	1(1)	3(1)	2(1)	5(3)		12(5)	3(2)	15(7)	
	Mechanical and Control Engineering	52	59(7)	4(3)	58(8)	5(2)	117(15)	9(5)	126(20)	15	5(1)	2(1)	9(7)	1(1)	11(3)		25(11)	3(2)	28(13)	
	Mechanical and Aerospace Engineering	29	31(4)	2	36(3)	2	67(7)	4	71(7)	9	7(3)	1	3(1)	1(1)	8(4)	1(1)	18(8)	3(2)	21(10)	
	Electrical and Electronic Engineering	35	39(2)	3(1)	36	3(2)	75(2)	6(3)	81(5)	13	14(5)		6(4)	2(2)	9(4)		29(13)	2(2)	31(15)	
	Physical Electronics	36	41(3)	2(1)	39(3)	3(2)	80(6)	5(3)	85(9)	12	10(5)		11(5)		17(12)	1(2)	38(22)	1(2)	39(24)	
	Communications and Integrated Systems (former)		5(3)		44(6)	2	49(9)	2	51(9)		3(2)		12(4)	1(1)	15(10)	3(2)	30(16)	4(3)	34(19)	
	Communications and Computer Engineering	32	34(3)				34(3)		34(3)	10	3(2)						3(2)		3(2)	
	Civil Engineering	27	21(5)	14(5)	28(10)	7	49(15)	21(5)	70(20)	8	4(1)	4(4)	5(4)	1(1)	5(4)	1(1)	14(9)	6(6)	20(15)	
	Architecture and Building Engineering	36	33(5)	13(2)	27(4)	18(5)	60(9)	31(7)	91(16)	11	4	1	4	1	6(4)		14(4)	2	16(4)	
	International Development Engineering	26	22(8)	12(8)	29(10)	11(8)	51(18)	23(16)	74(34)	9	9(4)	7(5)	3(2)	4(4)	15(8)	6(5)	27(14)	17(14)	44(28)	
	Nuclear Engineering	26	26(5)	3(1)	22	1(1)	48(5)	4(2)	52(7)	12	8(4)	1(1)	7(4)	5(3)	13(6)	3(2)	28(14)	9(6)	37(20)	
Graduate School of Bioscience and Biotechnology	Total	146	117(4)	32(7)	111(2)	39(10)	228(6)	71(17)	299(23)	44	30(3)	9(4)	29(4)	12(6)	32(11)	15(5)	91(18)	36(15)	127(33)	
	Life Science	29	19	9(2)	19	11(4)	38	20(6)	58(6)	8	6(1)	1(1)	3	1(1)	7(1)	2(1)	16(2)	4(3)	20(5)	
	Biological Sciences	26	19	6(3)	14	7(2)	33	13(5)	46(5)	9	4	4(1)	4	2(2)	7(2)	7(1)	15(2)	13(4)	28(6)	
	Biological Information	31	25(2)	6(2)	24(2)	10(2)	49(4)	16(4)	65(8)	9	9	2	6	1	7(4)	2(1)	22(4)	5(1)	27(5)	
	Bioengineering	30	26(1)	7	28	6(1)	54(1)	13(1)	67(2)	7	8(2)		8(3)	6(3)	5(1)	1	21(6)	7(3)	28(9)	
	Biomolecular Engineering	30	28(1)	4	26	5(1)	54(1)	9(1)	63(2)	11	3	2(2)	8(1)	2	6(3)	3(2)	17(4)	7(4)	24(8)	
Interdisciplinary Graduate School of Science and Engineering	Total	494	483(44)	61(12)	504(46)	68(14)	987(90)	129(26)	1,116(116)	219	120(32)	30(22)	109(33)	25(17)	197(50)	44(24)	426(115)	99(63)	525(178)	
	Innovative and Engineered Materials	44	44(2)	4	42(1)	4	86(3)	8	94(3)	22	14(2)	6(3)	13(1)	4(1)	17(1)	3	44(4)	13(4)	57(8)	
	Electronic Chemistry	48	43	9(2)	45(6)	9(2)	88(6)	18(4)	106(10)	20	13(2)	5(4)	12(6)	3(2)	20(7)	3(1)	45(15)	11(7)	56(22)	
	Materials Science and Engineering	43	41(1)	6(2)	40(2)	4	81(3)	10(2)	91(5)	19	3		7(3)	1(1)	15(2)	1(1)	25(5)	2(2)	27(7)	
	Environmental Science and Technology	40	39(7)	6(2)	37(5)	13(4)	76(12)	19(6)	95(18)	26	10(7)	8(7)	7(2)	2(2)	14(8)	10(7)	31(17)	20(16)	51(33)	
	Built Environment	44	32	11	42(4)	17(2)	74(4)	28(2)	102(6)	18	5		6(2)	4(2)	14(3)	8(4)	25(5)	12(6)	37(11)	
	Energy Sciences	41	40(3)	3	44(5)	3(2)	84(8)	6(2)	90(10)	17	9(4)		8(2)		11(5)	2	28(11)	2	30(11)	
	Environmental Chemistry and Engineering	40	40(1)	4	34(1)	6	74(2)	10	84(2)	16	12(1)	2(2)	7(1)	1(1)	16(3)	5(5)	35(5)	8(8)	43(13)	
	Electronics and Applied Physics	46	44(7)	5	48(6)	1	92(13)	6	98(13)	23	7(1)	1(1)	10(3)	2(2)	18(6)	1(1)	35(10)	4(4)	39(14)	
	Mechano-Micro Engineering (current)	31	37(3)	1	38(5)	2	75(8)	3	78(8)	10	8(2)		4(2)	3(3)	3(1)		15(5)	3(3)	18(8)	
	Computational Intelligence and Systems Science	76	73(13)	10(4)	79(5)	5(2)	152(18)	15(6)	167(24)	31	24(9)	6(4)	23(7)	3(2)	43(8)	8(2)	90(24)	17(8)	107(32)	
	Information Processing (current)	41	50(7)	2(2)	55(6)	4(2)	105(13)	6(4)	111(17)	17	15(4)	2(1)	12(4)	2(1)	26(6)	3(3)	53(14)	7(5)	60(19)	
Graduate School of Information Science and Engineering	Total	116	112(14)	7(2)	124(15)	15(2)	236(29)	22(4)	258(33)	38	23(5)	5(3)	20(12)	3(2)	38(18)	12(7)	81(35)	20(12)	101(47)	
	Mathematical and Computing Sciences	31	17(4)	2	30(2)	2	47(6)	4	51(6)	10	8(1)		5(2)		10(2)	2(1)	23(5)	2(1)	25(6)	
	Computer Science	45	55(8)	2(2)	56(10)	1(1)	111(18)	3(3)	114(21)	15	7(2)	1(1)	7(6)	2(1)	23(13)	6(6)	37(21)	9(8)	46(29)	
	Mechanical and Environmental Informatics	40	40(2)	3	38(3)	12(1)	78(5)	15(1)	93(6)	13	8(2)	4(2)	8(4)	1(1)	5(3)	4	21(9)	9(3)	30(12)	
Graduate School of Decision Science and Technology	Total	124	99(7)	25(13)	119(11)	28(11)	218(18)	53(24)	271(42)	44	19(7)	9(3)	22(5)	13(5)	51(8)	34(11)	92(20)	56(19)	148(39)	
	Human System Science	27	18(4)	10(8)	21(2)	5(4)	39(6)	15(12)	54(18)	11		3(2)	4(1)	4(2)	8(1)	12(4)	12(2)	19(8)	31(10)	
	Value and Decision Science	26	17	3(1)	22(3)	9(5)	39(3)	12(6)	51(9)	9	8(1)	1	7	4	14(4)	6	29(5)	11	40(5)	
	Industrial Engineering and Management	38	39(3)	3(1)	46(6)	2(1)	85(9)	5(2)	90(11)	13	8(5)	2(1)	6(4)	4(3)	18(2)	2(3)	32(11)	8(7)	40(18)	
	Social Engineering	33	25	9(3)	30	12(1)	55	21(4)	76(4)	11	3(1)	3	5	1	11(1)	14(4)	19(2)	18(4)	37(6)	
Graduate School of Innovation Management	Total	40	37(2)	5	44(1)	6(1)	81(3)	11(1)	92(4)	10	3	2(1)	3(1)	2	27(2)	7(1)	33(3)	11(2)	44(5)	
	Management of Technology*	40	37(2)	5	44(1)	6(1)	81(3)	11(1)	92(4)											
	Innovation**									10	3	2(1)	3(1)	2	27(2)	7(1)	33(3)	11(2)	44(5)	
Grand Total		1,584	1,493(126)	235(63)	1,602(134)	251(63)	3,095(260)	486(126)	3,581(386)	567	337(87)	91(55)	312(98)	83(48)	553(165)	144(71)	1,202(350)	318(174)	1,520(524)	

Notes: 1) Figures given in parentheses represent the number of international students.  
2) \* Professional master's program only.  
3) \*\* Doctoral program only.

## STAFF/STUDENT NUMBERS

## International Students

As of May 1, 2013

	Country and Area	Under-graduate Program	Master's Program	Doctoral Program	Non-Degree Program	Total
Asia	China	77 (25)	180 (75)	179 (69)	56 (19)	492 (188)
	Thailand	8 (4) [2]	48 (16)	69 (34)	11 (5)	136 (59) [2]
	Korea	32 (1)	26 (6)	62 (14)	8	128 (21)
	Indonesia	11 (3)	18 (4)	37 (10)	9 (4)	75 (21)
	Vietnam	15 (2)	26 (5)	25 (5)		66 (12)
	Malaysia	10 (1) [9]	12 (4)	16 (10)	5 (1)	43 (16) [9]
	Taiwan		4 (1)	8 (2)	6 (1)	18 (4)
	Philippines		4	13 (7)		17 (7)
	Mongolia	5 (1)	8 (5)	4 (3)		17 (9)
	Sri Lanka	1	2 (1)	7 (2)		10 (3)
	Bangladesh	3	1 (1)	6 (2)		10 (3)
	India	1	2	3	3	9
	Cambodia	1	4	4 (2)		9 (2)
	Nepal		2	3 (2)	1 (1)	6 (3)
	Pakistan			4	1 (1)	5 (1)
	Singapore	2 (1)	2			4 (1)
	Myanmar		2 (1)	2 (2)		4 (3)
	Brunei				1	1
	China (Hong Kong)		1			1
	China (Macau)			1		1
North America	U.S.A.		5 (1)	7 (1)	5	17 (2)
	Canada		1	2	1	4
Central and South America	Brazil	2	2	5	1 (1)	10 (1)
	Mexico		2	6		8
	Jamaica		2			2
	Colombia			1	1	2
	Peru		1	1 (1)		2 (1)
	Ecuador		1			1
	Argentina			1		1
	Cuba			1 (1)		1 (1)
	Costa Rica			1		1
Europe	France		4	2 (1)	9 (3)	15 (4)
	Germany			2	11	13
	Sweden			3 (1)	6 (1)	9 (2)
	Romania		1	2 (1)	3	6 (1)
	Russia		1	4		5
	Finland		1 (1)		4	5 (1)
	Switzerland				4 (3)	4 (3)
	Slovakia				4	4
Europe	Spain		1		3 (1)	4 (1)
	U.K.		1 (1)	2		3 (1)
	Italy		1 (1)	1	1 (1)	3 (2)
	Norway				3 (2)	3 (2)
	Kazakhstan		1	2 (1)		3 (1)
	Denmark		2		1	3
	Netherlands			1	1 (1)	2 (1)
	Ukraine			1	1 (1)	2 (1)
	Hungary		2 (1)			2 (1)
	Bulgaria		1 (1)		1 (1)	2 (2)
	Lithuania		1			1
	Poland			1		1
	Slovenia			1		1
	Greece				1	1
Europe	Czech Republic				1	1
	Tajikistan			1		1
	Austria		1			1
Oceania	Australia		2	1	1	4
	Turkey		4	6	2 (1)	12 (1)
Middle East	Iran	1 (1)		5 (2)	1	7 (3)
	Syria		1	3		4
	Palestine		1		1	2
	Iraq				1	1
	Arab			1		1
	Saudi Arabia	1 [1]				1 [1]
Africa	Algeria			7		7
	South Africa			3	1	4
	Egypt		1	1	2 (1)	4 (1)
	Kenya			2		2
	Tunisia			1 (1)	1 (1)	2 (2)
	Senegal			1	1	2
	Benin		1			1
	Ethiopia			1		1
	Sudan			1		1
	Ghana		1			1
	Cameroon			1		1
	Total	170 (39) [12]	386 (125)	525 (174)	147 (50)	1,255 (388) [12]

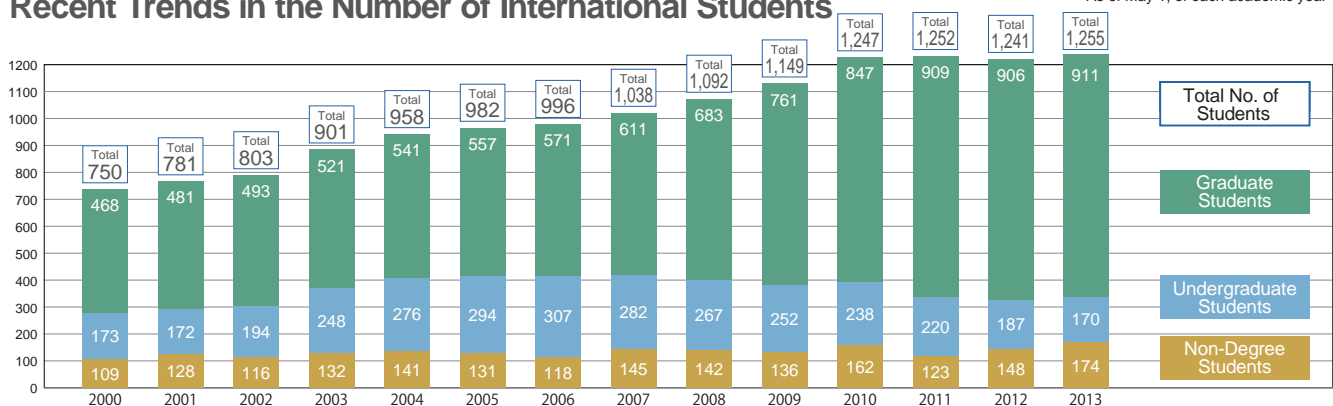
Notes: 1) Figures given in parentheses represent the number of female students.

2) Figures given in square brackets represent the number of students sent by their governments.

3) Non-degree students include research students, auditors, and the Japanese-language intensive course students.

## Recent Trends in the Number of International Students

As of May 1, of each academic year



# ENROLLMENT AND GRADUATION

## ENROLLMENT

### Enrollment in Undergraduate Program for FY2013

	Science	Engineering	Bioscience & Biotechnology	Total
Applicants	852	3,360	881	5,093
Admitted	185	690	153	1,028
Enrolled	193	763	152	1,108



### Enrollment in Graduate Program for FY2013

	Master's Program							Doctoral Program						
	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	Total	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	Total
Applicants	1,158	199	912	149	206	77	2,701	194	44	161	32	33	6	470
Admitted	664	146	494	116	124	40*	1,584	212	44	219	38	44	10	567
Enrolled	674 (69)	139 (10)	497 (67)	109 (14)	103 (13)	30 (10)	1,552 (183)	123 (56)	28 (7)	103 (55)	18 (10)	28 (7)	2 (3)	292 (142)

Notes: 1) Figures given in parentheses represent the number of students who enrolled in 2013.

2) Figures with an asterisk (\*) represent the number of students in the professional master's program.

### Enrollment in the International Graduate Program (October Start)

As of October 1, 2013

	2009			2010			2011			2012			2013			1993-2013		
	Master's	Doctoral	Sub-Total	Master's	Doctoral	Sub-Total	Master's	Doctoral	Sub-Total	Master's	Doctoral	Sub-Total	Master's	Doctoral	Sub-Total	Master's	Doctoral	Sub-Total
Graduate School of Science and Engineering	53	42	95	54	42	96	43	42	85	53	39	92	47	48	95	544	487	1,031
Graduate School of Bioscience and Biotechnology	12	10	22	10	8	18	11	9	20	9	6	15	11	5	16	121	107	228
Interdisciplinary Graduate School of Science and Engineering	28	28	56	40	27	67	35	31	66	41	45	86	43	33	76	294	283	577
Graduate School of Information Science and Engineering	4	7	11	5	6	11	3	3	6	4	7	11	9	4	13	78	64	142
Graduate School of Decision Science and Technology	8	2	10	7	5	12	6	3	9	10	3	13	2	2	4	77	40	117
Graduate School of Innovation Management	2	0	2	2	0	2	1	1	2	0	1	1	0	1	1	5	3	8
Total	107	89	196	118	88	206	99	89	188	117	101	218	112	93	205	1,119	984	2,103



## ENROLLMENT AND GRADUATION

## The Graduating Class of FY2012 and Where They Are Now

## ■ Bachelor's Degrees

	Number of Graduates	Further Study	Manufacturers	Non-Manufacturers	Education	Government or Public Agencies	Other/Unknown**
School of Science	192	161	2	23	0	1	5
School of Engineering	791	691	21	52	0	6	21
School of Bioscience and Biotechnology	157	144	1	8	0	0	4
Total	1,140	996	24	83	0	7	30

## ■ Master's Degrees

	Number of Graduates	Further Study	Manufacturers	Non-Manufacturers	Education	Government or Public Agencies	Other/Unknown**
Graduate School of Science and Engineering	726	111	388	179	9	15	24
Graduate School of Bioscience and Biotechnology	131	33	49	41	0	2	6
Interdisciplinary Graduate School of Science and Engineering	523	83	273	141	2	9	15
Graduate School of Information Science and Engineering	111	14	36	56	2	1	2
Graduate School of Decision Science and Technology	123	12	25	78	0	4	4
Graduate School of Innovation Management*	35	1	16	16	0	1	1
Total	1,649	254	787	511	13	32	52

## ■ Doctoral Degrees

	Number of Graduates	Manufacturers	Non-Manufacturers	Education	Government or Public Agencies	Other/Unknown**
Graduate School of Science and Engineering	160	36	69	22	3	30
Graduate School of Bioscience and Biotechnology	46	7	26	2	1	10
Interdisciplinary Graduate School of Science and Engineering	149	34	80	18	0	17
Graduate School of Information Science and Engineering	23	7	9	2	1	4
Graduate School of Decision Science and Technology	24	1	12	5	1	5
Graduate School of Innovation Management	17	6	9	0	0	2
Total	419	91	205	49	6	68

Notes: \* Professional master's program

\*\* Indicates research students and students studying or living abroad.

## Number of Doctoral Degrees Granted

As of March 31, 2013

		Graduate Program Ph.D.					Dissertation Ph.D.				
		Doctor of Science	Doctor of Engineering	Doctor of Philosophy	Doctor of MOT	Total	Doctor of Science	Doctor of Engineering	Doctor of Philosophy	Doctor of MOT	Total
Graduate School of Science and Engineering	FY2012	40	95	16	0	151	1	8	0	0	9
	Total number since the establishment	1,241	3,431	188	0	4,860	407	2,481	23	0	2,911
Graduate School of Bioscience and Biotechnology	FY2012	18	16	2	0	36	0	2	1	0	3
	Total number since the establishment	412	409	10	0	831	40	58	2	0	100
Interdisciplinary Graduate School of Science and Engineering	FY2012	20	105	7	0	132	0	7	0	0	7
	Total number since the establishment	520	2,133	89	0	2,742	138	822	12	0	972
Graduate School of Information Science and Engineering	FY2012	8	14	2	0	24	0	2	0	0	2
	Total number since the establishment	98	211	67	0	376	17	48	4	0	69
Graduate School of Decision Science and Technology	FY2012	3	9	13	0	25	0	0	1	0	1
	Total number since the establishment	13	157	223	0	393	1	17	19	0	37
Graduate School of Innovation Management	FY2012	0	1	1	6	8	0	0	0	0	0
	Total number since the establishment	0	6	6	16	28	0	0	0	0	0
Total		2,284	6,347	583	16	9,230	603	3,426	60	0	4,089

# NEW FEATURES OF RESEARCH PROGRAMS

## Materials Research Center for Element Strategy



Materials research Center for Element Strategy

<http://www.mces.titech.ac.jp/en/>

The Materials Research Center for Element Strategy (MCES) was established on August 1, 2012, under the Integrated Research Institute of Tokyo Tech, as an organization for the development of novel materials. Element strategy is one of the critical national strategies for Japan due to the fact that it is poor in natural resources. Tokyo Tech was selected on June 29, 2012 to establish a national project named Tokodai Institute for Element Strategy (TIES), which is one of the national projects for electronic materials in the MEXT Elements Strategy Initiative to Form Core Research Centers. MCES has a number of researchers in TIES who give lectures, promote research activities, and foster industry liaisons. MCES together with TIES is pioneering a new element frontier in electronic materials, leaving behind conventional guiding principles for material designs based on previous successes, and establishing a new principle based upon freely derived inspirations.

MCES is also establishing novel materials for use in electronic components such as semiconductors, transparent conductors, and dielectrics, through strong collaborations with the National Institute for Materials Science, the High Energy Accelerator Research Organization, the University of Tokyo, and others who are concurrently doing research in fundamental physics, computational science, and state-of-the-art materials analyses. Based on the novel materials, MCES develops alternative electronic materials composed of abundant and nontoxic elements. It also develops novel functional materials, while actively promoting secure intellectual property and industry liaisons aiming at the materialization and commercialization of these new materials. MCES is constructing a new building at the Suzukakedai Campus, the MCES Building, which is the first facility exclusively for Element Strategy in the world. It will serve as a central gathering hub for Element Strategy researchers from academia, industry, and government after its completion in early 2015.

## Organization

Research representatives from TIES, the Director of MCES at Tokyo Tech, and young and energetic researchers at the Institute are closely collaborating to achieve the goal of the MCES.

## Project

Term & Budget: 2012-2023; approx. 7G JPY in cooperation with the National Institute for Materials Science, the High Energy Accelerator Research Org., and the University of Tokyo; CMSI operated by the Materials Research Center for Element Strategy of Tokyo Tech.

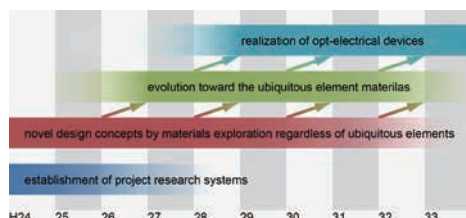


MCES building to be completed in early 2015

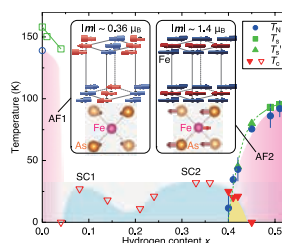
## Purpose & Goal

### Establishment of an International Institute for Element Strategy

By breaking the spell of previous successes in materials research, pioneering the frontiers of electronic materials, establishing new design concepts with unrestricted approaches, and by creating practical materials composed of ubiquitous elements, we are establishing a novel materials science.

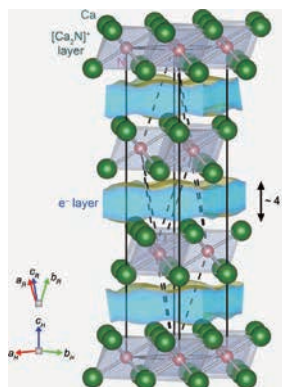
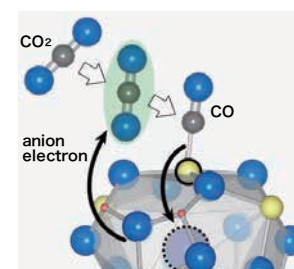


## Early Achievements



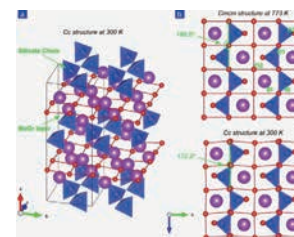
- Discovery of new magnetic phase in Iron Pnictide superconductors [submitted to Nature Phys.]

- Room-temperature decomposition of CO<sub>2</sub> by C12A7:e<sup>-</sup> electrides [Nature Comm. ncomms 3378]



- Discovery of new magnetic phase in Iron Pnictide superconductors [submitted to Nature Phys.]

- Discovery of novel lead-free non-perovskite ferroelectrics Bi<sub>2</sub>SiO<sub>5</sub> [Angew Chem. Int. Ed. **52**, 8088 (2013)]



# NEW FEATURES OF RESEARCH PROGRAMS

## Earth-Life Science Institute (ELSI)



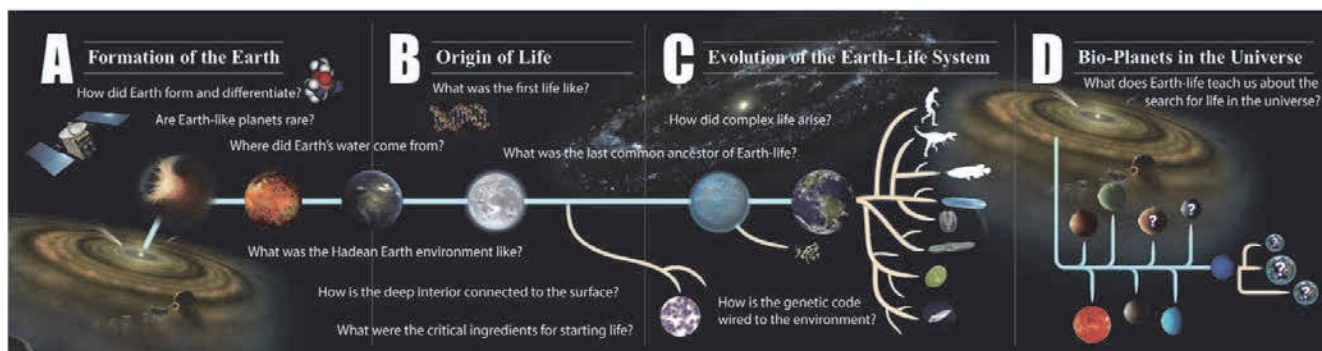
The Earth-Life Science Institute (ELSI) was launched on December 7, 2012 after being selected by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to participate in its World Premier International Research Center Initiative (WPI). This initiative reflects the Japanese government's effort to build globally outstanding science research centers in Japan.

### Exploring the Origins of the Earth-Life System...

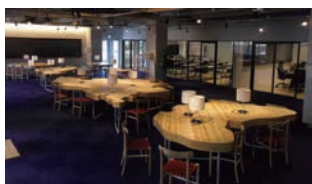
ELSI's aim is to answer the fundamental questions that have long captured humanity's imagination: when and where did life originate, and how did it evolve? Until recently, discussions about the origin and evolution of life have mainly been limited to the biochemistry of proto-life forms. We at ELSI will broaden the discussion to focus equally on the relationship between Earth and Life. Life is a phenomenon that is sustained through the exchange of energies and matters with the surrounding environment, thus the origin-of-life question cannot be separated from the study of the origin and evolution of the Earth.

### ...and Life in the Universe

By elucidating the origins of life in the context of the Earth, we will learn about both the unique and universal aspects of our planet that allowed life to emerge and evolve. Our research will therefore shed light upon the possibility and characteristics of life elsewhere.



### ELSI Activities



One of ELSI's goals is to become an international hub for research on the origins and evolution of the Earth-Life system. In addition to our annual ELSI International Symposium, we actively support our scientists to host workshops as well as invite visitors to our institute. By providing the opportunity and space for exchange, this traffic produces inspiration and collaborations. We also sponsor workshops outside of ELSI, as a way to encourage our members' involvement in other organizations and institutes. Day-to-day activities at ELSI include weekly seminars presented by both our own scientists as well as visitors, lunch talks, study groups, and afternoon coffee breaks attended by all present in the building, including administrative staff.





## Endowment Chairs of Private Companies

As of May 1, 2013

### Division of e-Government System-Care Engineering funded by NTT-DATA Corporation

**Affiliation:** Imaging Science and Engineering Laboratory  
This division provides structured guidance on how to establish IT-Governance and keep information systems effective beyond their life cycle. Through analyses of practical examples, the division also provides useful and practical assistance for the government concerning the e-Government system.

### Materials for Energy Conversion (Funded by Toppan Printing)

**Affiliation:** Chemical Resources Laboratory  
This division is active in basic research and teaching, while always keeping practical applications in mind. The main areas of development are the research of new materials for energy conversion, specifically the synthesis of polymers, e.g. by organometallic polycondensation using nickel complexes, and the preparation of polymer films for energy converting devices. (Pyridine- and phenylene-based polymers are examples.)

### Biometabolic Engineering (ALA) funded by SBI Pharmaceuticals Corporation

**Affiliation:** Frontier Research Center  
This course focuses on the application of 5-aminolevulinic acid (ALA). This research aims to establish new medical technologies (tumor therapy, tumor diagnosis and treatment of various diseases related to basal metabolism).

### The 130th Anniversary of Tokyo Institute of Technology Commemorative Course - Creative Food Science, Technology and Culture in the Future funded by Hisao Taki and Gourmet Navigator Incorporated

**Affiliation:** Graduate School of Innovation Management  
This course aims to build a business model for the creation of a new food industry. It also seeks to train human resources for this new industry and offers several courses related to food.

### Railway Technology Innovation and Standardization (Endowed Chair by East Japan Railway Company)

**Affiliation:** Graduate School of Science and Engineering  
The goals of this division are to develop international standardized resources and international perspectives; develop international standardization methodology and strategies for railway companies; and, share and exchange ideas between faculty and guest speakers.

### Advanced Free Radical Technology and Life Science

**Affiliation:** Graduate School of Bioscience and Biotechnology  
This division provides technological development in the fields of life science and medical technology. This research aims to elucidate the mechanism of the redox system and the treatment of various diseases related to aging society.

### International Nuclear Power Human Resource Training (Hitachi-GE) Chair Course

**Affiliation:** Graduate School of Science and Engineering  
The course aims to develop human resources capable of aggressively tackling environmental and energy resource problems as well as those in formulating energy policy. It promotes human resource development, such as the education and training of personnel and researchers. The course also seeks to develop highly reliable nuclear power generation systems and surveys the long-term stable energy supply system.

### Medical and Biological Engineering Creation

**Affiliation:** Graduate School of Bioscience and Biotechnology  
The main purpose of this division is to establish a central hub for the development of medical devices and to foster human resource development in the field of medical and biological engineering in order to contribute to human health, longevity, and medical treatment.

### Dainichiseika-Donated Chair of Research Division for Innovative Biomaterials

**Affiliation:** Center For Biological Resources and Informatics  
This division aims to research and develop biomaterials with new functions, and develop applied technologies with them. In addition, this division establishes bases of regenerative medicine and the technology that will become alternatives to animal experiments. This research is concerned with biomedical engineering through the collaboration between industry and academia to promote the welfare of animals and humans.

### Biomaterials Design for Regenerative Medical Engineering

**Affiliation:** Graduate School of Bioscience and Biotechnology  
New biomaterials will be designed and developed to be applied in large scale cultures of ES/iPS cells and differentiated cells for regenerative medicine and the replacements of animal experiments.

## Collaborative Research Chairs and Divisions

As of July 1, 2013

### AGC Collaborative Research Division for Glass and Inorganic Materials

**Collaborator:** Asahi Glass Co., Ltd.  
**Term:** April 1, 2010 - March 31, 2014  
**Affiliation:** Materials and Structures Laboratory  
**Research Title:** Basic Research on Glass, Development of New Inorganic Materials

### Collaborative Research Division for Information Distribution Platform System

**Collaborator:** NTT Communications Corporation  
**Term:** April 1, 2010 - March 31, 2014  
**Affiliation:** Solution Research Laboratory  
**Research Title:** Research on Information Distribution Platform System

### NTT/NTT Facilities Collaboration Research Unit

**Collaborator:** Nippon Telegraph and Telephone Corporation NTT Facilities  
**Term:** April 1, 2010 - March 31, 2015  
**Affiliation:** Solutions Research Laboratory (AES Center)  
**Research Title:** Smart Energy Network in Next-Generation Communities

### Celgene Collaborative Research Chair

**Collaborator:** Celgene Corporation  
**Term:** April 1, 2012 - November 30, 2013  
**Affiliation:** School and Graduate Bioscience and Biotechnology  
**Research Title:** Development of Novel Drugs Targeted for Cereblon (CRBM) and its related factors

### SEC-TITECH Future Technology Joint Research Program

**Collaborator:** Samsung Electronics Co., Ltd.  
**Term:** May 1, 2012 - March 31, 2015  
**Affiliation:** Interdisciplinary Graduate Science and Engineering  
**Research Title:** Research on the Architecture of Information Portals for Future Internet Societies

### Toshiba Collaborative Research Division for Smart City Infrastructure

**Collaborator:** Toshiba Corporation  
**Term:** July 1, 2013 - June 30, 2016  
**Affiliation:** Solutions Research Laboratory  
**Research Title:** Research on Integrated Solutions for Smart City Infrastructure

### Tokyo Gas Collaboration Research Unit

**Collaborator:** Tokyo Gas Co., Ltd.  
**Term:** April 1, 2010 - March 31, 2015  
**Affiliation:** Solutions Research Laboratory (AES Center)  
**Research Title:** Smart Energy Network Toward a Low-Carbon Society

### ENEOS Collaboration Research Unit

**Collaborator:** JX Nippon Oil & Energy Corporation  
**Term:** April 1, 2010 - March 31, 2015  
**Affiliation:** Solutions Research Laboratory (AES Center)  
**Research Title:** Low-Carbon Emissions Energy Systems

### Mitsubishi Corp. Collaboration Research Unit

**Collaborator:** Mitsubishi Corporation  
**Term:** April 1, 2010 - March 31, 2015  
**Affiliation:** Solutions Research Laboratory (AES Center)  
**Research Title:** Renewable Energy Utilization

### Collaborative Research Division for Environmental Monitoring Sensor Control System

**Collaborator:** Fujitsu Laboratories, Ltd.  
**Term:** April 1, 2012 - March 31, 2015  
**Affiliation:** ICE Cube Center  
**Research Title:** Collaborative Research on Environmental Monitoring Sensor Control System

### Collaborative Research Division for Sensing Solutions for Infrastructure

**Collaborator:** Omron Social Solutions Co., Ltd.  
**Term:** June 1, 2013 - May 31, 2015  
**Affiliation:** Graduate School Science and Engineering  
**Research Title:** Development of Sensing and Monitoring System for Civil Engineering Structures

# NEW FEATURES OF RESEARCH PROGRAMS

## Innovative Research Initiatives (10 Projects)

As of April 1, 2013

Title	Project Leader	
Value-Added Remote Sensing	Interdisciplinary Graduate School of Science and Engineering	Prof. HATORI Yoshinori
Design of Photonic Material Based on Dynamic Structure	Graduate School of Science and Engineering	Prof. KOSHIHARA Shin-ya
State-of-the-Art Inorganic Materials	Solutions and Research Laboratory	Prof. HARA Michikazu
Measurement and Control of Visual Functions	Interdisciplinary Graduate School of Science and Engineering	Prof. UCHIKAWA Keiji
Structural Integrity Assessment and Smart Material & Structures	Graduate School of Science and Engineering	Prof. TODOROKI Akira
Research Project for Urban Infrastructure Systems	Graduate School of Science and Engineering	Prof. ASAKURA Yasuo
Transport Studies Unit	Interdisciplinary Graduate School of Science and Engineering	Prof. YAI Tetsuo
Combinatorial Science Research Initiatives	Graduate School of Science and Engineering	Associate Prof. TANAKA Hiroshi
Research Group for Signal Processing and Network Technologies for Advanced Radio Systems	Graduate School of Science and Engineering	Prof. SUZUKI Hiroshi
Versatile Innovative Plasma Science: VIPs	Interdisciplinary Graduate School of Science and Engineering	Prof. HOTTA Eiki

## The Global COE Programs at Tokyo Institute of Technology

As of July 2013

[http://www.rso.titech.ac.jp/cat5/detail\\_44.html](http://www.rso.titech.ac.jp/cat5/detail_44.html)

The Global COE Program was introduced by MEXT as the successor to the 21st-Century COE Program. Started in 2007, the program aims to further strengthen and enhance the functions of graduate schools and create centers of excellence in accord with the highest world standards.

Note: COE: Center of Excellence MEXT: Ministry of Education, Culture, Sports, Science and Technology

Start	Finish	Field of Study	Program	Program Leader
2007	2011	Life Sciences	Evolving Education and Research Center for Spatio-Temporal Biological Network	Prof. TOKUNAGA Makio
		Chemistry, Material Sciences	Education and Research Center for Material Innovation	Prof. TAKEZOE Hideo
			Education and Research Center for Emergence of New Molecular Chemistry	Prof. SUZUKI Keisuke
		Information, Electrical and Electronic Sciences	Computationism as a Foundation of the Sciences	Prof. WATANABE Osamu
			Photonics Integration - Core Electronics	Prof. KOYAMA Fumio
2008	2012	Mathematics, Physics, Earth Sciences	Nanoscience and Quantum Physics	Prof. SAITO Susumu
		Mechanical, Civil Engineering, Architectural and Other Fields of Engineering	International Urban Earthquake Engineering Center for Mitigating Seismic Mega Risk	Prof. TOKIMATSU Kohji
		Interdisciplinary, Combined Fields, New Disciplines	Multidisciplinary Education and Research Center for Energy Science	Prof. HIRAI Shuichiro
2009	2013	Interdisciplinary, Combined Fields, New Disciplines	From the Earth to "Earths": Interdisciplinary Study on Habitable Planets	Prof. IDA Shigeru

# UNIVERSITY/INDUSTRY RELATIONS



## Office of Industry Liaison

<http://www.sangaku.titech.ac.jp/english>

### Tokyo Institute of Technology's One-Stop Service for Industry Liaison

As a gateway to the one-stop service for university-industry cooperation activities, the Office of Industry Liaison (OIL) puts Tokyo Institute of Technology's efforts into practice, emphasizes cooperation between university and industry, creates new industries, contributes to the promotion of innovation, and strives to create intellectual property. OIL also focuses on international university-industry collaboration.



## Organizational Alliances

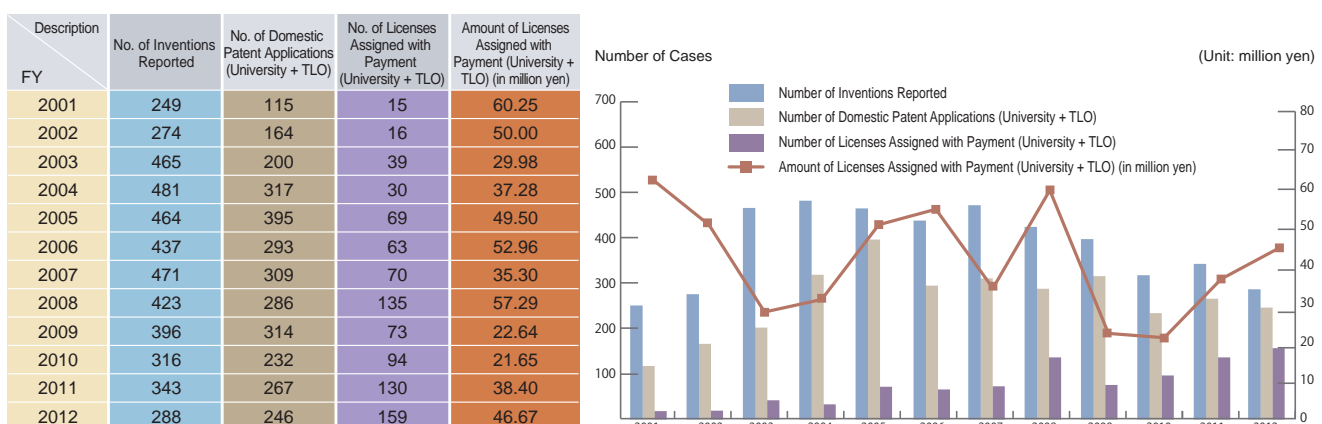
As of September 1, 2013

One of OIL's major activities is the Research Alliance Program, which provides an opportunity for Tokyo Institute of Technology and companies to conduct organizational research. Tokyo Institute of Technology concluded agreements with the following partners in the past resulting in successful research achievements.

Industry	Company Name	Date of Agreement	Theme
Manufacturing Companies	Fujitsu Laboratories Ltd.	Jan. 21, 2004	Information Technology
	Mitsubishi Chemical Corporation	Jan. 22, 2004	Chemical Process and New Functional Materials
	Mitsubishi Electric Corporation	Feb. 27, 2004	Future Devices Technology
	Panasonic Corporation	Mar. 11, 2004	Core Technology of Electronics
	Toppan Printing Co., Ltd.	Oct. 13, 2004	Technology of Coating and Nano-Thin Layer
	Sumitomo Chemical Co., Ltd.	Apr. 06, 2005	Advanced Materials, Catalysts, and Life Sciences
	Canon Inc.	Aug. 02, 2005	Advanced Materials and Imaging Technology
	Semiconductor Technology Academic Research Center	Sept. 01, 2006	Advanced Semiconductor Technology
	Hitachi, Ltd.	Jul. 01, 2011	Next-Generation Technologies for Social Innovation
	Sumitomo Mitsui Banking Corporation	Oct. 01, 2004	Technology Matching
Non-Manufacturing Companies	Nippon Telegraph and Telephone Corporation	Sept. 10, 2008	Research and Development Information and Telecommunications
	Nomura Research Institute, Ltd.	Sept. 22, 2008	Research and Development on Service Innovation
	Nomura Securities Co., Ltd.	Sept. 01, 2013	Commercialization of Research Results and Intellectual Property
Non-Profit Organization	Kanagawa Academy of Science and Technology	Apr. 02, 2007	R&D for Industrial Development and Fostering R&D Human Resources

## IP Management

As of April 30, 2013





## UNIVERSITY/INDUSTRY RELATIONS

## Tokyo-Tech-Launched Venture Companies

As of May 1, 2013

Approved on:	Company	Summary of Business	Type	Established on
Jan. 09, 2003	Nippon CAD Co., Ltd.	Manufacture, construction and maintenance of mechanical and computer systems for golf driving ranges, such as chain conveyors for ball trolleys and the tee up devices.	3	Apr. 28, 1977
Jan. 09, 2003	OKK, Inc.	Development and sales of original products featuring measurement with an optical technology.	2	Apr. 11, 1981
Jan. 09, 2003	Brain Functions Laboratory, Inc.	Development and sales of "Emotion Spectrum Analyser (ESA)," a system to display emotion quantitatively through EEG-analysis.	2	Feb. 01, 1994
Jan. 09, 2003	New Technology Management Co., Ltd.	R&D of ECF (Electro-Conjugate Fluid) technology and its industrial applications.	2	July 21, 1995
Jan. 09, 2003	Tytemn Corporation	Sales, manufacturing, and R&D on high performance slurries for silicon water final polishing and for CMP in IC processing.	3	Apr. 03, 1996
Jan. 09, 2003	DINO Co., Ltd.	Development and sales of computer software.	2 3	Aug. 14, 1998
Jan. 09, 2003	Fu's Lab Co., Ltd.	Development & planning of 3-D camera systems, image storage systems, and image processing software for improvement and restoration.	1	July 30, 1999
Jan. 09, 2003	EcoMEET Solutions Co., Ltd.	Basic planning and optimum design for industrial waste disposal process and facilities based on the system of waste gasification and power generation as the core technologies.	1	July 25, 2000
Jan. 09, 2003	ChemGenesis, Inc.	Development, manufacture and sales of chemical libraries and biological tools based on combinatorial chemistry.	1	Mar. 01, 2001
Jan. 09, 2003	Optical Comb, Inc.	Development, manufacturing and sales of "Optical Frequency Comb Generators," application products and related services.	1 2	Apr. 01, 2002
Jan. 09, 2003	GenoMembrane, Inc.	Gene cloning, gene expression and functional analysis of drug transporters.	1	Apr. 01, 2002
Jan. 09, 2003	Aphoenix, Inc.	Drug discovery, development and production based on magnetic bead technology.	1 2	Apr. 10, 2002
Jan. 09, 2003	ai-Phase Co., Ltd.	Manufacture and sales of thermal property measurement systems and thermal analysis systems. High quality services for supplying thermal property measurement and thermal analysis.	1	Apr. 16, 2002
May 12, 2003	Micro Energy, Ltd.	Development, manufacture and sales of gasification power generation systems using industrial waste as fuel.	3	Apr. 09, 2003
July 15, 2003	Connectous Co.	Consulting and training for information systems.	2	Dec. 20, 2001
July 15, 2003	Thin-Film Process Soft, Inc.	Development of thin film manufacturing processes for LC and PDP, and device sales.	1	July 07, 2000
May 18, 2004	HiBot Corporation	Research, development and sales of robots.	2 3	Apr. 15, 2004
June 15, 2004	Tokyo Geotech Co., Ltd	Development, production and sales of the subsoil-behavior-analysis and simulation software DACSAR. Construction of civil engineering/architecture structures and the analysis of subsoil in natural disasters.	1 2 3	May 18, 2000
Aug. 09, 2004	TRIONSITE	Support of industry promotion policies taken by local governments with planning and implementation. Surveys, consulting, and the establishment/sales/operation of websites.	1 2	July 02, 2004
Sept. 13, 2004	eCompute Corporation	Provides software consulting and development, specializing in image processing, virtual reality and the Linux system.	2 3	Jan. 15, 2004
Sept. 13, 2004	Tokyo Tech Engineering Solutions, Inc.	Survey, planning, design, safety-check, monitoring, and retrofit of construction products.	2 3	July 22, 2004
Sept. 13, 2004	mimi.inc	Development and sales of application software for cellular phones.	3	May 18, 2004
Nov. 02, 2004	Luvina Software Company	Software development and operation. Consulting on investments in Vietnam.	3	Aug. 06, 2004
Dec. 13, 2004	Techno Management Solutions, Ltd.	Development and sales of next-generation management systems and consulting service for a process plant life cycle.	2	Oct. 01, 2004
Dec. 13, 2004	HUB Networks, Inc.	Development of software and hardware control systems.	2 3	Apr. 10, 2003
Aug. 29, 2005	Chimeraworks	Software development, sales, and management. R&D in information technology and medical devices.	3	Aug. 04, 2005
Oct. 11, 2005	Interlocus, Inc.	R&D, sales and education on CAD, CAM, CAE and CG systems. Provision of engineering services and/or solutions.	1 2	Sept. 09, 2005
Oct. 11, 2005	Kawazoe Frontier Technology, Co., Ltd.	R&D of materials technology and technology consulting services on hydrogen energy systems.	2	Jan. 06, 2003
Dec. 06, 2005	AMSIS, Inc.	R&D, design, production and sales of semiconductor devices and modules for microwave- and millimeterwave-systems.	2	Oct. 11, 2005
Feb. 27, 2006	Oisix Co., Ltd.	Online food retailing. Working with a network of dairies and alcoholic drink retailers.	3	June 01, 2000
Mar. 14, 2006	Technovarth	Software development, sales, lease, and maintenance/management services.	3	Feb. 08, 2006
Apr. 25, 2006	Kozo Zairoy Building Research Co., Ltd.	R&D and technology consulting services for the building of steel and seismic-resistant structures.	2	Oct. 01, 1986
Feb. 27, 2007	MERSTech, Inc.	Industrialization and commercialization of MERS-technology-based power electronics products and services. (MERS: Magnetic Energy Recovery Switch)	1	Jan. 15, 2007
Apr. 02, 2007	iMott, Inc.	R&D and consultation for segmented-DLC coating technologies, coating services and patent licensing.	1	Feb. 08, 2007
Apr. 02, 2007	PRESYSTEMS, Inc.	Sales and development of our testing tools on software systems.	2 3	Feb. 01, 2007

Approved on:	Company	Summary of Business	Type	Established on
July 23, 2007	PopLiberal, Inc.	Research, development and sales of computer software, primarily web applications.	3	May 25, 2007
Sept. 10, 2007	PhosMega Co., Ltd.	Development of medical and electronic measurement equipment, robots, and the manufacture and sales of prototype instrumentation and systems.	2	Aug. 10, 2007
Oct. 09, 2007	Visual Technology Laboratory, Inc.	Development and sales of simulation software for lighting design, color application and landscape design, as well as patent consultation.	3	Aug. 17, 2007
Nov. 19, 2007	Tech Engine Co., Ltd.	Information quality control and development.	3	May 01, 2007
Mar. 17, 2008	INFERRET JAPAN K.K.	Development of mobile-oriented applications based on technologies such as automatic speech recognition (ASR) and natural language processing (NLP). Special focus on carrier independent voice- and speech-enabled search applications.	2	Aug. 09, 2007
May 26, 2008	Inputex Corporation	Haptic/tactile interfaces. Licensing, development and sales of components, development tools and embedded systems for quick and flexible human-machine user interfaces.	1	Mar. 27, 2008
Oct. 06, 2008	Plasma Concept Tokyo, Inc.	Development, consultation and sales of atmospheric plasma sources.	2	July 02, 2008
Nov. 17, 2008	MCX Corporation	Research, development, consultation and sales of energy supply systems and facilities, heat exchangers and related equipment.	1	Mar. 03, 2008
Mar. 06, 2009	EffecTech Institute of Strategy, Inc.	Strategy structuring for technology management, new business development, and investigative research for science and technology policies.	2	May 02, 2008
Mar. 06, 2009	MieruPC, Inc.	Development, manufacture and sales of computers and computer-related products.	2 3	Feb. 19, 2009
Sept. 18, 2009	NuSAC, Inc.	Surveys, research, education, personnel training, recruitment and proposals for solutions related to nuclear energy.	2	Apr. 28, 2009
Jan. 07, 2010	Bi2-Vision Co.	Sales of 3D photographic systems. Sales of 'active stereo vision systems' for robotics researchers at universities and at public and private research institutes.	1	Aug. 28, 2009
Mar. 12, 2010	Meko Edu.	Educational guidance to overseas students, cram school operations, and advisory services for studying in Japan.	3	Apr. 02, 2009
Nov. 09, 2010	Techidea Corporation	R&D and sales of analog and RF CMOS circuit technology. Technology consulting and education.	1	Apr. 23, 2010
Dec. 03, 2010	Building Structure Institute	Research planning, experiment verification and product development for aseismic structures, vibration-controlled structures and isolated structures.	1 2	Sept. 17, 2010
July 06, 2011	Resonic GmbH	Sales and production of the measurement systems for rigid-body property identification and measurement services for rigid-body property identification.	1	Mar. 14, 2011
Oct. 07, 2011	Plasma Factory Co., Ltd.	Development, manufacture and sales of atmospheric pressure plasma treatment systems.	1 2	July 04, 2011
Nov. 28, 2011	Energy Storage Materials LLC	Research, development, consulting, production and sales of materials and devices for energy storage systems. Development and sales of software for materials technology.	1	Aug. 10, 2011
Nov. 28, 2011	MedTech Hert, Inc.	Research and development of medical devices and pharmaceuticals; licensing contracts of medical devices and pharmaceuticals; manufacture, sales and export/import of medical devices and pharmaceuticals; and, management of training and seminars related to clinical uses of medical devices.	1	Aug. 22, 2011
Dec. 19, 2011	X Compass Ltd.	Development of technology to commercialize the learning of the artificial intelligence system SOINN; application development; and, business development.	1	Oct. 17, 2011
June 11, 2012	Zetta Co., Ltd.	Development and sales of nanofiber-manufacturing machinery and nanocoating machinery for electro-spray deposition (ESD) as well as research and development of applications using nanofiber and nanocoating technologies (carbon nanofibers, sea water desalination, drug delivery system (DDS) for plants etc.).	1	Nov. 11, 2011
Nov. 19, 2012	SolarFlame Corporation	Consultations for determining evaluation measures (procedures and methods) and the development of a pertinent art for companies aiming to make use of solar power generation, solar fuel production, and solar condensation, etc.	1	Aug. 01, 2012
Dec. 13, 2012	Hasegawa Research Laboratory	Technology consulting about a robot's intellectual control which utilizes the original imaging technology, "ICGM."	1	Nov. 01, 2012

## Notes:

## 1) Former Criteria (until Sept. 14, 2010)

- Criteria 1: A company making use of any intellectual property owned by the staff or students of Tokyo Institute of Technology
- Criteria 2: A company making use of any fruit or technology resulting from research activities at Tokyo Institute of Technology
- Criteria 3: A company established by a student at Tokyo Institute of Technology or in which a student of Tokyo Institute of Technology is involved

## 2) Present Criteria (after Sept. 15, 2010)

- Criteria 1: A company making use of intellectual property owned by a researcher or student at Tokyo Institute of Technology and/or any technological fruits acquired by Tokyo Institute of Technology through its research activities
- Criteria 2: A company established by a student at Tokyo Institute of Technology or in which a student of Tokyo Institute of Technology is involved

## 3) Companies liquidated after conferral are not listed above.

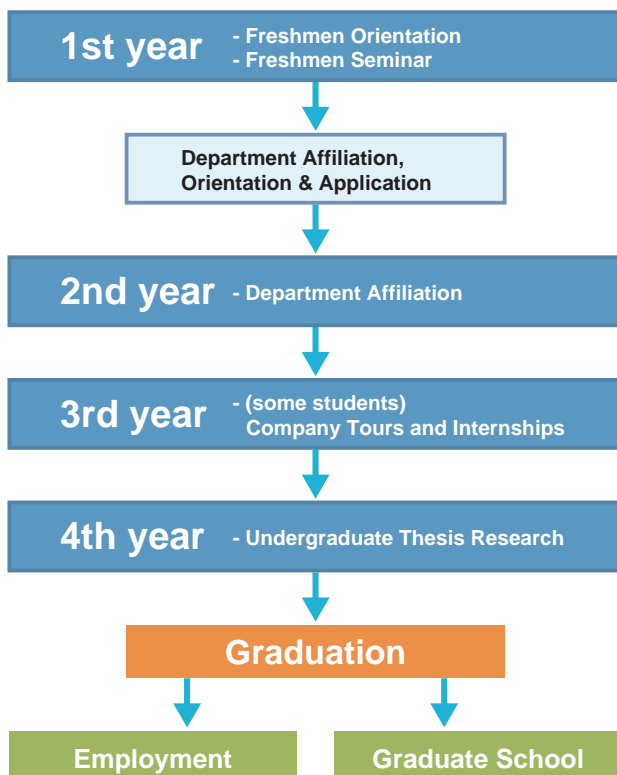
As of May 1, 2013

## Number of New Business Ventures and Tokyo Tech Venture Titles Granted

Description	FY	Pre-2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Titles Granted		—	—	16	3	11	6	3	9	5	4	2	5	2	2
New Ventures		13	3	7	4	7	4	3	9	3	4	3	5	2	0
Aggregate Total of New Ventures		22	16	23	27	34	38	41	50	53	57	60	65	67	67

# NEW FEATURES OF EDUCATION PROGRAMS

## The Flow from Admission to Graduation



## About the Admission by Group System

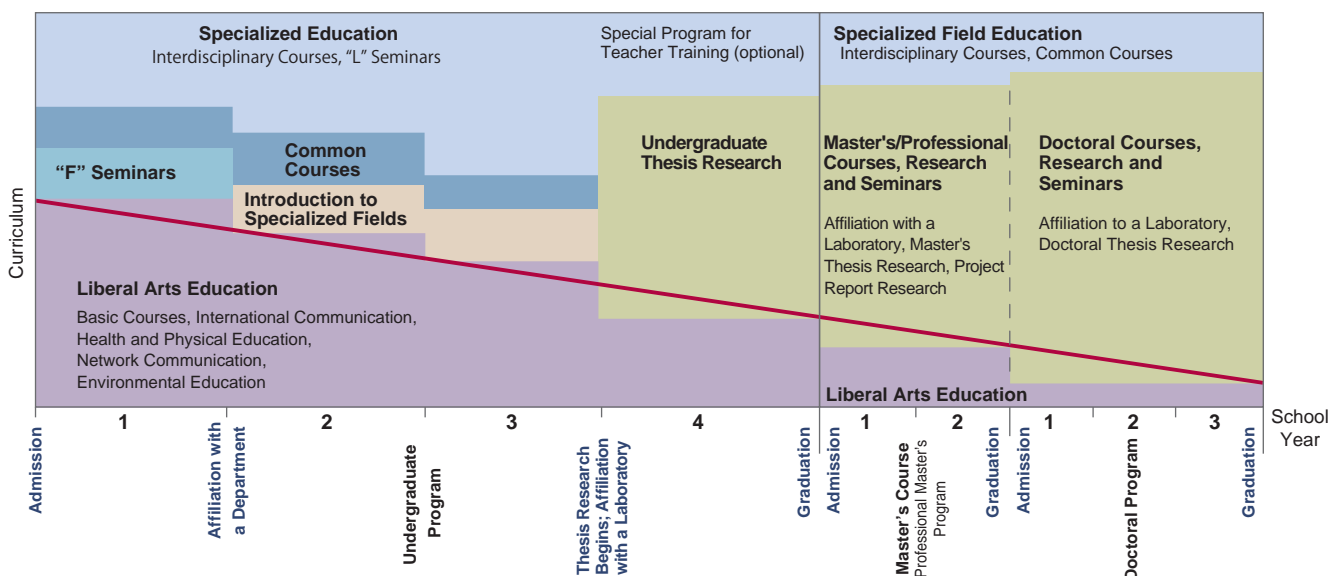
Before choosing a department, freshmen first belong to one of the groups that are under each of the three schools (Science, Engineering, Bioscience and Biotechnology). This allows time for students to discover the most appropriate path for them before starting a departmental affiliation in the second year. (In some cases students may move on to a department outside of their initial group.)

## List of Subjects by Group

School of Science	Group 1	Mathematics	School of Engineering	Group 4	Mechano-Aerospace Engineering
		Physics			International Development Engineering
		Chemistry			Social Engineering
		Information Science			Control and Systems Engineering
School of Engineering	Group 2	Earth and Planetary Sciences		Group 5	Electrical and Electronic Engineering
		Metallurgical Engineering			Computer Science
		Organic and Polymeric Materials			Social Engineering
		Inorganic Materials			Civil and Environmental Engineering
School of Engineering	Group 3	Social Engineering		Group 6	Architecture and Building Engineering
		Chemical Engineering			Social Engineering
		Polymer Chemistry			Bioscience
		Social Engineering			Biotechnology
School of Engineering	Group 4	Industrial and Systems Engineering	School of Bioscience and Biotechnology	Group 7	
		Mechanical Engineering and Science			
		Mechanical and Intelligent Systems Engineering			

About 90% of students go on to graduate school

## Program of Undergraduate and Graduate Study



## Student Clubs

### Music Clubs

Orchestra, Los Guaracheros, Latin Jazz Big Band, Classical Guitar, Rock, Modern Jazz, Chor Kleines (Mixed Chorus), Folksongs

### Art Clubs

Art, Animation, SF, Theater, Photography, Movie, Design

### Cultural Clubs

English Speaking Society, Manga, Tea Ceremony, Railway

### Recreational Clubs

Mountain Climbing, Go, Shogi

### Social Clubs

Social Sciences, Environmental, Journalist, Oriental Philosophy, Modern Issues

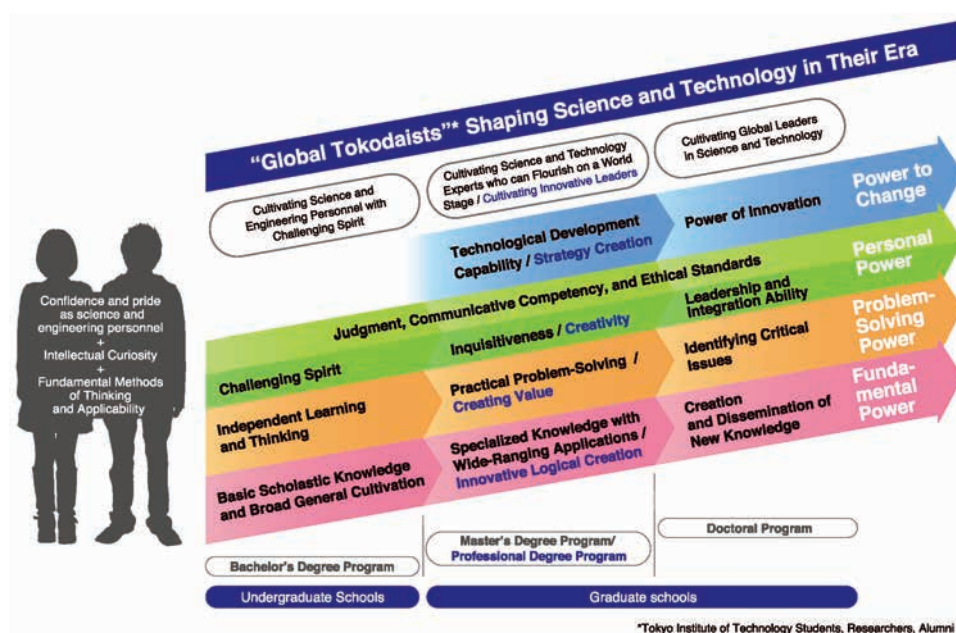
### Technology Clubs

Astronomy, Glider, Robotics, Automotive, Wireless, Broadcasting, Meister Craftsman, Science & Technology, Bio Creative Staff, Jug Tech, International Development Academy

### Sports Clubs

Baseball, Tennis, Soccer, Rugby, Handball, Volley Ball, Badminton, Ping-Pong, Basket Ball, Golf, Aikido, Judo, Shorinji Kempo, Kyudo, Kendo, Karate, Rowing, Track & Field, Orienteering, Competitive Skiing, Swimming, Sailing, Mountaineering, Weight Lifting, Folk Dance, Fencing, Dance, Gymnastics, American Football, Triathlon, Futsal, Cycling, Hang Glider, Street Dance

## Policy on Education



## Undergraduate Education Programs

Characterized by a high level of originality and expert teaching in science and technology, Tokyo Institute of Technology's innovative education programs for undergraduates have won widespread acclaim. For example, the Multidisciplinary Joint Education Certificate Courses of the Confederation of the Four Universities provide students with the opportunity to expand their horizons of knowledge and experience while acquiring a dual bachelor's degree. The participating institutions are Tokyo Medical and Dental University, Tokyo University of Foreign Studies, and Hitotsubashi University.

## Graduate Education Programs

Tokyo Institute of Technology offers a wide range of graduate education programs in science and technology, covering numerous research fields. The varied nature of these programs enables students to learn in conditions suitable to their aims and experience. Many of them benefit from the support of the government (MEXT), which provides funding for educational innovation in education.

- The Integrated Doctoral Education Program allows students to be awarded a doctoral degree in a shorter period than the standard graduate program.
- The Dual Degree Program enables students taking a doctoral program to gain a professional master's degree in addition to their doctorate.
- The Special Graduate Course offers integrated research across various departmental boundaries.
- The Tokyo Tech-Tsinghua University Joint Graduate Program provides students with the opportunity to study on both campuses and obtain a dual master's or doctoral degree.

## International Graduate Program

[http://www.titech.ac.jp/english/graduate\\_school/international/international\\_graduate/index.html](http://www.titech.ac.jp/english/graduate_school/international/international_graduate/index.html)

For many years, Tokyo Institute of Technology has admitted international students and provided them with the highest standard of education. Based on past experiences, the university launched the International Graduate Program in 2007 to provide opportunities to pursue advanced studies leading to Ph.D. degrees, or master's degrees in some cases, in English. The students are selected internationally with priority given to graduates or students of Tokyo Institute of Technology's partner universities with which Tokyo Institute of Technology has concluded exchange agreements. Of those students selected, outstanding students are chosen to be awarded Japanese government scholarships.

The study fields span various subjects in science and technology, many of which are related to issues of global interest. The students are given an opportunity to study and conduct research under the supervision of faculty members instructing outside departmental boundaries. In addition to scientific and technological research, Japanese language courses from introductory to advanced level, and classes on Japanese culture are also provided. The courses and classes aim to facilitate and enhance students' quality of life in Japan and prepare them for work or future opportunities in Japan.

### Program

- Sustainable Engineering Program
- Postgraduate Program for Multinational Architects in Conjunction with Engineering and Urban Design
- International Graduate Program for Bioscience and Biotechnology
- International Program for Interdisciplinary Science and Engineering
- Education Program of Advanced Information Technology Leaders
- International Graduate Program for Global Leaders on Engineering Systems with Humanities, Social Sciences, and Cultural Studies
- International Program on Earthquake Engineering
- Tokyo Tech-Tsinghua University Joint Graduate Program
- Tokyo Tech-RIKEN International School



# NEW FEATURES OF EDUCATION PROGRAMS

## Creativity Education and Accredited Subjects

The Educational Planning Office at Tokyo Institute of Technology encourages students to develop the creativity that has always been at the heart of science and technology. A series of specially designed and accredited subjects for fostering creativity in undergraduate and graduate students has been highly evaluated.

There are over 70 subjects including: Column Land; Crafts; Creative Design for Bioscience and Biotechnology I, II; Creative Experiments on Electrical and Electronic Engineering; Creativity Laboratory in Metallurgy; Laboratory Works in Concrete Materials and Structures; Mechanical Design Projects I, II; Mechanical Engineering Literacy; System Modeling; and, Transdisciplinary Collaboration Practice among others.

## Number of Students Participating in the Multidisciplinary Joint Education Certificate Courses of the Confederation of the Four Universities

Students can expand their horizons of knowledge through the Multidisciplinary Joint Education Certificate Courses offered by the Confederation of the Four Universities: Tokyo Institute of Technology, Tokyo Medical and Dental University, Tokyo University of Foreign Studies, and Hitotsubashi University.

		2007		2008		2009		2010		2011		2012		2013	
		Applications	Approved	Applications	Approved	Applications	Approved	Applications	Approved	Applications	Approved	Applications	Approved	Applications	Approved
With Three Universities Participating	Subtotal	29	26	39	31	29	28	12	12	16	15	18	18	42	39
	Comprehensive Life Sciences Course <sup>1</sup>	25	23	31	25	26	25	8	8	15	14	15	15	28	27
	Overseas Cooperation Course <sup>1</sup>	4	3	2	2	3	3	2	2	1	1	2	2	7	6
	Research on Living Spaces Course <sup>1</sup>			6	4			2	2	0	0	1	1	7	6
With Two Universities Participating	Subtotal	77	54	90	68	81	74	33	33	61	56	42	39	56	53
	Scientific Technology and Intellectual Property Course <sup>2</sup>	12	12	13	13	12	12	6	6	8	8	2	2	7	7
	Technology and Management Course <sup>2</sup>	28	6	26	6	13	6	3	3	10	6	6	5	5	5
	General Arts and Sciences Course <sup>2</sup>	19	18	22	20	33	33	14	14	30	29	15	15	23	21
	Medical Engineering Course <sup>3</sup>	14	14	24	24	16	16	8	8	8	8	12	11	15	14
	International Technical Writing Course <sup>4</sup>	4	4	5	5	7	7	2	2	5	5	7	6	6	6
Total		106	80	129	99	110	102	45	45	77	71	60	57	98	92

Notes: 1) Tokyo Institute of Technology, Hitotsubashi University and Tokyo Medical and Dental University

2) Tokyo Institute of Technology and Hitotsubashi University

3) Tokyo Institute of Technology and Tokyo Medical and Dental University

4) Tokyo Institute of Technology and Tokyo University of Foreign Studies

5) Hitotsubashi University and Tokyo Medical and Dental University (Tokyo Institute of Technology is NOT participating in this program.)

As of May 1, 2013

## Enrollment in the Tokyo Tech-Tsinghua University Joint Graduate Program

A dual master's degree can be earned upon the completion of supervised studies and the submission of a graduate thesis at both universities under this program. For the doctoral program, thesis submission to either participating university is necessary to meet the degree requirements.

	Academic Year 2011			Academic Year 2012			Academic Year 2013		
	Master's Program		Doctoral Program	Master's Program		Doctoral Program	Master's Program		Doctoral Program
	Tokyo Institute of Technology	Tsinghua University		Tokyo Institute of Technology	Tsinghua University		Tokyo Institute of Technology	Tsinghua University	
Nanotechnology Course	0	3	1	5	3	1	2	Figure to be fixed in October 2013	Figure to be fixed in October 2013
Bioscience and Biotechnology Course	3	2	1	3	2	0	3		
Decision Science and Technology Course	3	3	2	4	3	1	3		
Total	6	8	4	12	8	2	8		

# INTERNATIONAL COLLABORATION

International collaboration creates new opportunities and expands the global reach of Tokyo Institute of Technology for the benefit of all participants. International agreements covering academic and student exchange offer a bridge between Japan and over three dozen countries on all continents, which students and researchers can use to further their research and share their progress with an ever-growing community of top-level scientists. Specifically, Tokyo Institute of Technology has reorganized its international functions under the International Office, which formulates the Institute's global strategy to strengthen collaborative partnerships abroad, while domestically focusing on developing a more international environment on campus. This internationalization makes it easier for overseas researchers to come to Japan and better prepares Japanese researchers to go abroad.

## International Office

### Domestic Students

- Help improve English proficiency and/or other foreign language skills
- Encourage study abroad
- Foster an international mindset

### International Students

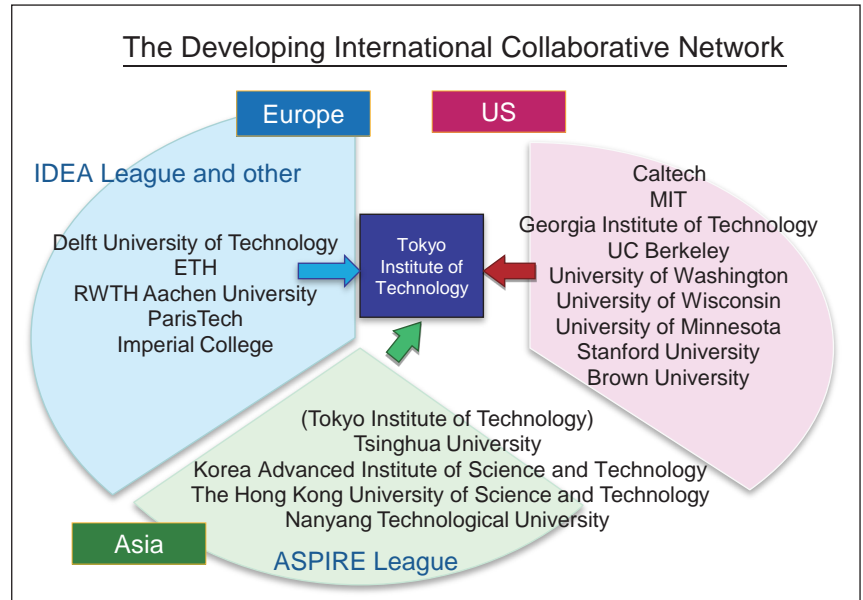
- Conduct more PR programs
- Reinforce scholarship system
- Promote cooperation with partner universities

- Provide support to enhance English proficiency
- Increase multinational academic staff
- Promote exchanges with overseas institutions
- Increase the number of visiting scholars from overseas

- Reorganize into the integrated international office
- Establish an international advisory board
- Improve English-language skills among office staff
- Provide more information in English
- Support international industry-university-government alliance projects

- Restructure and reinforce the International Graduate Program
- Provide distance learning opportunities to overseas students
- Joint postgraduate programs
- Education via satellite communications networks or over the Internet

## International Networks



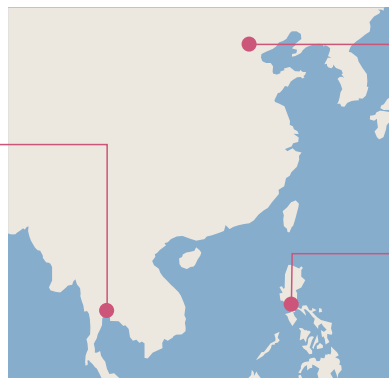
Tokyo Institute of Technology is active in developing international networks with leading science and engineering universities around the globe.

## Overseas Offices

Tokyo Institute of Technology has university-wide exchange agreements and departmental agreements with about 220 institutions worldwide. To facilitate strategic and collaborative partnerships, we have established three overseas offices: one in Thailand, one in the Philippines, and one in China.

### Tokyo Tech Thailand Office

Founded in the Thailand Science Park in 2002, this office offers distance education using satellite communications systems and high-speed Internet, while operating the Thailand Advanced Institute of Science and Technology-Tokyo Tech (TAIST) program in cooperation with the National Science and Technology Development Agency of Thailand (NSTDA).



### Tokyo Tech China Office

Founded in 2006 at the Tsinghua University Campus, Beijing, this office seeks to promote exchange programs. Notably, the Tokyo Institute of Technology-Tsinghua University Joint Graduate Program allows students to obtain a dual degree.

### Tokyo Tech Philippines Office

Founded in 2005 at the De La Salle University Campus, Manila, satellite communications systems and a TV conference system are utilized to support the various research and education projects under way, reflecting the longstanding friendship between the two countries.

## INTERNATIONAL COLLABORATION

## Academic Cooperation Agreements (University-Wide Agreements)

As of May 1, 2013

Country and Area		University/Institute	Concluded	Area of Exchange	Country and Area	University/Institute	Concluded	Area of Exchange	
Asia	China	Harbin Institute of Technology	10/1980	F.S.I.	North America	Canada	University of Waterloo	12/2006	F.S.I.
		Tsinghua University	4/1985	F.S.I.			The University of British Columbia	3/2013	F.S.I.
		Shanghai Jiao Tong University	8/1991	F.S.I.		U.S.A.	University of Washington	5/1974	F.S.I.
		Xi'an Jiaotong University	8/1991	F.S.I.			Georgia Institute of Technology	1/2001	F.S.I.
		Zhejiang University	9/1993	F.S.I.			University of California, Berkeley	4/2012	F.S.I.
		Beijing Institute of Technology	12/1993	F.S.I.			University of Minnesota	4/2013	F.S.I.
		University of Science and Technology of China	9/1997	F.S.I.	Central and South America	Brazil	Universidade de São Paulo	5/1991	F.S.I.
		Dalian University of Technology	11/2006	F.S.I.		Europe	Belgium	Ghent University	9/1992
		Tongji University	4/2007	F.S.I.	Denmark		Technical University of Denmark	9/1992	F.S.I.
		Tianjin University	8/2007	F.S.I.			University of Copenhagen	8/2007	F.S.I.
		The Hong Kong University of Science and Technology	4/2010	F.S.I.	Finland		Aalto University	10/1995	F.S.I.
		Indonesia	Bandung Institute of Technology	6/1988			F.S.I.	Lappeenranta University of Technology	4/1999
	Universitas Indonesia		12/1992	F.S.I.	France		École Nationale des Ponts et Chaussées (École des Ponts ParisTech)*	9/1992	F.S.I.
	Universitas Gadjah Mada		2/2000	F.S.I.			École Nationale Supérieure d'Arts et Métiers (Arts et Métiers ParisTech)*	4/2002	F.S.I.
	Korea	Korea Advanced Institute of Science and Technology (KAIST)	5/1986	F.S.I.			University of Rennes 1	5/2002	F.S.I.
		Korea Institute of Science and Technology (KIST)	12/1991	F.I.			Université de Strasbourg	4/2004	F.S.I.
		Korea University	9/1992	F.S.I.			École Polytechnique*	2/2006	S.
		Kyungpook National University	7/1993	F.S.I.			Paris Tech**	4/2007	F.S.I.
		Hanyang University	4/1996	F.S.I.			École Nationale Supérieure des Mines de Paris (Mines Paris Tech)*	4/2007	F.S.I.
		Yonsei University	4/2002	F.S.I.	Germany		Technische Universität München	7/1982	F.S.I.
		Pohang University of Science and Technology	3/2003	F.S.I.			Universität Stuttgart	4/1992	F.S.I.
		Seoul National University	3/2007	F.S.I.			Leibniz Universität Hannover	2/2004	F.S.I.
		Sungkyunkwan University	10/2008	F.S.I.			Rheinisch-Westfälische Technische Hochschule Aachen	9/2007	F.S.I.
	Mongolia	Mongolian University of Science and Technology	6/2003	F.S.I.	Berlin Institute of Technology		10/2008	F.S.I.	
		National University of Mongolia	4/2007	F.S.I.	Italy		University of Bologna	3/1997	F.S.I.
	Philippines	De La Salle University	5/1992	F.S.I.			The University of Rome La Sapienza	9/1998	F.S.I.
		University of the Philippines	8/1992	F.S.I.			Politecnico di Milano	5/2002	F.S.I.
	Singapore	National University of Singapore	2/1991	F.S.I.	Netherlands		Delft University of Technology	2/2009	F.S.I.
		Nanyang Technological University	12/2009	F.S.I.			Norway	Norwegian University of Science & Technology	2/1993
	Taiwan	National Cheng Kung University	11/1997	F.S.I.	Sweden		Royal Institute of Technology (KTH)	9/1991	F.S.I.
		National Tsing Hua University	11/1998	F.S.I.			Chalmers University of Technology	10/1992	F.S.I.
		National Taiwan University	1/1999	F.S.I.			Linköping University	2/2008	F.S.I.
		National Chiao Tung University	11/2004	F.S.I.	Switzerland		Swiss Federal Institute of Technology, Zurich (ETH)	9/1978	F.S.I.
		National Central University	10/2007	F.S.I.		University of Zurich	7/2007	F.S.I.	
	Thailand	Chulalongkorn University	10/1985	F.S.I.		École Polytechnique Federale de Lausanne (EPFL)	3/2011	F.S.I.	
		King Mongkut's Institute of Technology Ladkrabang	11/1992	F.S.I.	U.K.	University of Strathclyde	2/1993	F.S.I.	
		Thammasat University	3/1996	F.S.I.		Churchill College, University of Cambridge	3/2001	F.I.	
		Kasetsart University	12/1996	F.S.I.		University of Durham	11/2010	F.S.I.	
		National Science and Technology Development Agency (NSTDA)	9/2001	F.S.I.	Oceania	Australia	The University of Melbourne	8/1994	F.S.I.
		King Mongkut's University of Technology North Bangkok	1/2005	F.S.I.		Iran	Sharif University of Technology	11/2000	F.S.I.
		Asian Institute of Technology	12/2005	F.S.I.	Middle East	Turkey	Middle East Technical University	12/1992	F.S.I.
		TAIST-Tokyo Tech	12/2006	F.S.I.			Boğaziçi University	3/1998	F.S.I.
		King Mongkut's University of Technology Thonburi	10/2007	F.S.I.			Istanbul Technical University	6/2012	F.S.I.
	Vietnam	Hanoi University of Science and Technology	8/1995	F.S.I.		Notes: * French "grandes ecoles"			
		Vietnam National University, Hanoi, University of Science	8/1995	F.S.I.	** Institution created by "grandes ecoles" of science and technology in Paris				
		Ho Chi Minh City University of Technology	2/2012	F.S.I.					

Notes: \* French "grandes écoles"

\*\* Institution created by "grandes écoles" of science and technology in Paris

F stands for faculty, staff and/or researchers, S for students, and I for academic information.

## Academic Cooperation Agreements (School-to-School Agreements)

As of May 1, 2013

Country and Area	University/Institute	Counterpart	Concluded	Area of Exchange
Asia	China	University of Science and Technology Beijing	School of Engineering, Interdisciplinary Graduate School of Science and Engineering.	8/1980 F.I.
		Tsinghua University (Center of Science, Technology and Society)	Graduate School of Decision Science and Technology (Industrial Engineering and Management)	9/2001 F.S.I.
		Dalian University of Technology (School of Materials Science and Engineering)	Graduate School of Science and Engineering (Metallurgy and Ceramics Science)	3/2008 F.S.I.
		Northeast Normal University (School of Physics, School of Urban and Environmental Science, School of Computer Science)	Interdisciplinary Graduate School of Science and Engineering	6/2008 F.S.I.
		Nanjing University of Science and Technology (School of Mechanical Engineering)	Interdisciplinary Graduate School of Science and Engineering	9/2009 F.S.I.
		Chinese Academy of Sciences (The Key of Solar Thermal Energy and Photovoltaic System, Institute of Electrical Engineering)	Solutions Research Organization, Integrated Research Institute	11/2009 F.S.I.
		Southeast University (State Key Laboratory of Bioelectronics)	Chemical Resources Laboratory	1/2010 F.S.I.
		Beijing University of Chemical Technology (College of Materials Science and Engineering)	Chemical Resources Laboratory	1/2010 F.S.I.
		Southeast University (School of Biological Science and Medical Engineering)	Interdisciplinary Graduate School of Science and Engineering	3/2010 F.S.I.
		Beijing University of Chemical Technology (College of Materials Science and Engineering)	Interdisciplinary Graduate School of Science and Engineering	3/2010 F.S.I.
		University of Electronic Science and Technology of China (School of Microelectronics and Solid Electronics)	Chemical Resources Laboratory	6/2011 F.S.I.
		Beijing Normal University (College of Water Sciences)	Interdisciplinary Graduate School of Science and Engineering (Environmental Science and Technology)	9/2011 F.S.I.
		Shanghai Jiao Tong University (School of Life Sciences and Biotechnology)	Graduate School of Bioscience and Biotechnology	12/2011 S.
		Research Institute of Southeast University in Suzhou	Chemical Resources Laboratory	12/2011 F.S.I.
		Graduate School of Nanjing University	Interdisciplinary Graduate School of Science and Engineering	4/2012 F.S.I.
		Chinese Academy of Sciences (Shanghai Institute of Ceramics)	Materials and Structures Laboratory	10/2012 F.S.I.
	India	VIT University (School of Information Technology and Engineering (SITE))	Graduate School of Information Science and Engineering	5/2010 F.S.I.
		Indian Institute of Technology Madras (Department of Biotechnology)	Global Scientific Information and Computing Center	11/2011 F.S.I.
	Indonesia	Indonesian National Atomic Energy Agency	Research Laboratory for Nuclear Reactors	6/1997 F.I.
		Institute Technology of Bandung (Faculty of Mining and Petroleum Engineering)	Interdisciplinary Graduate School of Science and Engineering	10/2011 S.
		Universitas Indonesia (Faculty of Computer Science)	Imaging Science and Engineering Laboratory	12/2011 F.S.I.
	Korea	Inha University (Department of Chemical Engineering)	Graduate School of Science and Engineering (Chemical Engineering)	2/2000 F.S.I.
		Korea University (Department of Materials Science and Engineering)	Graduate School of Science and Engineering (Metallurgy and Ceramics Science)	10/2005 F.S.I.
		Korea Institute of Machinery & Materials	Precision and Intelligence Laboratory	4/2008 F.I.
		Chungnam National University (Department of Architectural Engineering, College of Engineering)	Interdisciplinary Graduate School of Science and Engineering (Environmental Science and Technology)	2/2012 F.S.I.
		Korea Institute of Industrial Technology (Technical Textile Technology Center, Gyeonggi Regional Division)	Graduate School of Science and Engineering (Organic and Polymeric Materials)	7/2012 F.S.I.
		Seoul National University (Department of Nuclear Engineering, Center for Advance Research in Fusion Reactor Engineering)	Research Lab. for Nuclear Reactors	8/2012 F.S.I.
		Cheorwon Plasma Research Institute	Innovative Research Initiatives (Versatile Innovative Plasma Science)	2/2013 F.S.I.
	Laos	Government of Luang Prabang, Lao PDR (Department of Heritage Luang Prabang)	Graduate School of Science and Engineering (International Development Engineering) Global Scientific Information and Computing Center	4/2006 F.I.
	Malaysia	Universiti Tenaga Nasional (Department of Electrical Power Engineering, Department of Electronics and Communication Engineering)	Graduate School of Science and Engineering (Electrical and Electronic Engineering, Physical Electronics)	12/2012 F.S.I.
	Mongolia	National University of Mongolia (Nuclear Research Center)	Center for Research into Innovative Nuclear Energy Systems	9/2011 F.S.I.
	Nepal	Tribhuvan University (Institute of Engineering)	Interdisciplinary Graduate School of Science and Engineering	7/2012 F.S.I.
	Philippines	University of the Philippines (Department of Civil Engineering, TTC, NHRC, SURP)	School of Engineering (Civil and Environmental Engineering)	4/1993 F.S.I.
		De La Salle University (Department of Chemical Engineering)	Graduate School of Science and Engineering (Chemical Engineering)	9/2005 F.S.I.
		Technological University of the Philippines (College of Engineering)	Graduate School of Science and Engineering (International Development Engineering)	9/2010 F.S.I.
	Taiwan	National Taiwan University (College of Engineering/College of Electrical Engineering and Computer Science)	School of Engineering	5/2011 S.
	Thailand	Thammasat University (Chemical Engineering Dept., Faculty of Engineering)	Graduate School of Science and Engineering (Chemical Engineering)	9/2006 F.S.I.
		Chulalongkorn University (Faculty of Engineering)	Global Scientific Information and Computing Center	6/2007 F.I.
		Chiang Mai University (Faculty of Engineering)	Graduate School of Science and Engineering (Engineering)	3/2010 F.S.I.
		Chiang Mai University (Faculty of Engineering)	Global Scientific Information and Computing Center	3/2010 F.I.



## INTERNATIONAL COLLABORATION

Country and Area		University/Institute	Counterpart	Concluded	Area of Exchange
Asia	Thailand	Chulalongkorn University (Department of Nuclear Technology, Faculty of Engineering)	Research Laboratory for Nuclear Reactors	5/2010	F.I.
		Mahidol University (Faculty of Science, Faculty of Graduate Studies)	Graduate School of Bioscience and Biotechnology	6/2010	F.S.I.
		United Nations Educational Scientific and Cultural Organization, Asia and Pacific Regional Bureau for Education (UNESCO BANGKOK)	Global Scientific Information and Computing Center, Graduate School of Science and Engineering (International Development Engineering)	2/2011	F.S.I.
		Thailand Institute of Nuclear Technology	Research Laboratory for Nuclear Reactors	7/2011	F.I.
		Chiang Mai University (Faculty of Engineering)	Interdisciplinary Graduate School of Science and Engineering	5/2012	F.S.I.
	Vietnam	Vietnam Atomic Energy Commission	Research Laboratory for Nuclear Reactors	11/1999	F.I.
		Vietnam National University Hanoi University of Science (Department of Physics)	Research Laboratory for Nuclear Reactors	10/2003	F.S.I.
		Hanoi University of Science and Technology Hitachi-GE Nuclear Energy, Ltd.	Research Laboratory for Nuclear Reactors	4/2011	F.S.I.
		Electric Power University	Research Laboratory for Nuclear Reactors	7/2011	F.I.
		Le Quy Don Technical University (Faculty of Information Technology)	Center for Agent-Based Social Systems Sciences	11/2011	F.S.I.
North America	U.S.A.	University of Washington (Department of Architecture, School of Architecture & Urban Planning)	School of Engineering (Architecture and Building Engineering)	1/1978	F.S.I.
		Massachusetts Institute of Technology (Department of Mechanical Engineering)	School of Engineering (Control and Systems Engineering)	6/1991	F.S.I.
		Stanford University (Department of Mechanical Engineering)	Graduate School of Science and Engineering (Mechanical Engineering Department)	10/1999	F.S.I.
		University of Minnesota (College of Science and Engineering)	Graduate School of Science and Engineering (Engineering)	2/2005	S.
		Massachusetts Institute of Technology (Center for Advanced Nuclear Energy Systems)	Center for Research into Innovative Nuclear Energy Systems	2/2006	F.S.I.
		Rice University (Department of Electrical and Computer Engineering)	Imaging Science and Engineering Laboratory	5/2006	F.S.I.
		Rice University (Department of Electrical and Computer Engineering)	Interdisciplinary Graduate School of Science and Engineering (Electronics and Applied Physics)	2/2008	F.S.I.
		Rice University (Richard E. Smalley Institute for Nanoscale Science & Technology)	Graduate School of Science and Engineering (Condensed Matter Physics)	2/2008	F.S.I.
		College of Engineering of University of California, Berkeley (Pacific Earthquake Engineering Research Center)	Center for Urban Earthquake Engineering	2/2008	F.S.I.
		Pennsylvania State University (Department of Materials Science and Engineering)	Graduate School of Science and Engineering (Ceramics Science Division in the Department of Metallurgy and Ceramic Science)	4/2009	F.S.I.
		University of Wisconsin-Madison (College of Engineering)	Graduate School of Science and Engineering (Engineering)	9/2010	S.
		University of Hawaii at Manoa (Mechanical Engineering)	Graduate School of Science and Engineering (Mechanical and Control Engineering)	3/2011	F.S.I.
		University of Hawaii at Manoa (College of Languages, Linguistics, and Literature)	Graduate School of Decision Science and Technology	3/2012	F.S.I.
		The University of Nevada, Reno (Center for Civil Engineering Earthquake Research)	Center for Urban Earthquake Engineering	8/2011	F.S.I.
		Northwestern University (Department of Civil and Environmental Engineering)	Graduate School of Science and Engineering (Civil Engineering)	10/2012	F.S.I.
Europe	Austria	Vienna University of Technology (Faculty of Architecture and Planning)	Graduate School of Science and Engineering (Engineering)	9/2009	F.S.I.
	Finland	University of Jyväskylä (Faculty of Information Technology and Agora Center)	Graduate School of Decision Science and Technology	3/2009	F.S.I.
		University of Tampere (School of Information Science)	Graduate School of Decision Science and Technology	12/2012	F.S.I.
	France	École d'Architecture de Paris la Villette	School of Engineering	7/2000	S.
		CEMHTI, Centre National de la Recherche Scientifique	Research Laboratory for Nuclear Reactors (Engineering)	9/2008	F.S.I.
		Ecole National des Ponts et Chaussées	Graduate School of Science and Engineering, Decision Science and Technology, Interdisciplinary Graduate School of Science and Engineering	9/2010	F.S.I.
		Telecom ParisTech	Graduate School of Decision Science and Technology	3/2012	F.S.I.
		Pierre et Marie Curie University	Graduate School of Science and Engineering (Engineering)	3/2012	S.
		Université d'Aix-Marseille (Physique des Interactions Ioniques et Moléculaires (PIIM))	Chemical Resources Laboratory	7/2012	F.S.I.
		Université Paris-Sud 11 (The Light-Matter Federation (LUMAT))	Chemical Resources Laboratory	7/2012	F.S.I.
		Ecole Centrale Paris (Laboratoire Structures, Propriétés, Modélisation des Solids)	Materials and Structures Laboratory	9/2012	F.S.I.
		Grenoble Institute of Technology	Interdisciplinary Graduate School of Science and Engineering (Electronics and Applied Physics)	11/2012	F.S.I.
	Germany	Paul-Drude-Institut Berlin	Quantum Nanoelectronics Research Center	9/1994	F.I.
		Forschungszentrum Karlsruhe GmbH	Research Laboratory for Nuclear Reactors	2/1998	F.I.
		Ludwig-Maximilians-Universität München (Humanwissenschaftliches Zentrum)	Interdisciplinary Graduate School of Science and Engineering	5/2001	F.S.I.
		German Cancer Research Center	Graduate School of Bioscience and Biotechnology	5/2008	F.S.I.
		Fraunhofer Ernst-Mach-Institut	Materials and Structures Laboratory	11/2008	F.S.I.

Country and Area		University/Institute	Counterpart	Concluded	Area of Exchange
Europe	Germany	Max Planck Institute (Center for Adaptive Behavior and Cognition)	Graduate School of Decision Science and Technology	3/2009	F.S.I.
		Heidelberg University (Institute of Pharmacy and Molecular Biotechnology (IPMB))	Graduate School of Bioscience and Biotechnology	9/2009	F.S.I.
		Heidelberg University (Biochemistry Center)	Graduate School of Bioscience and Biotechnology	9/2009	F.S.I.
		Hamburg University of Technology (School of Management Science and Technology)	Graduate School of Decision Science and Technology	10/2010	F.S.I.
		University of Erlangen-Nuremberg (School of Engineering)	Global Scientific Information and Computing Center	11/2010	F.S.I.
		Rheinisch-Westfälische Technische Hochschule Aachen (Faculty of Mathematics, Computer Science and Natural Sciences, Civil Engineering, Mechanical Engineering, Georesources and Materials Engineering, Electrical Engineering and Information Technology)	Graduate School of Science and Engineering (Engineering)	2/2012	S.
		Hamburg University of Technology (Faculty of Management Science and Technology)	Graduate School of Innovation Management	6/2012	F.S.I.
	Italy	Istituto dei Materiali per l' Eletttronica ed il Magnetismo, Consiglio Nazionale delle Ricerche	Graduate School of Science and Engineering (Science)	10/2007	F.S.I.
		University of Trento (Faculty of Cognitive Science)	Graduate School of Decision Science and Technology	2/2010	F.S.I.
		University of Pisa (Faculty of Engineering)	Graduate School of Science and Engineering (Engineering)	4/2010	F.S.I.
		Institute for Computing Applications-National Research Council (CNR)	Global Scientific Information and Computing Center	2/2011	F.I.
		University of Perugia (Faculty of Engineering)	Interdisciplinary Graduate School of Science and Engineering	8/2012	F.S.I.
	Kazakhstan	Al-Farabi Kazakh National University (Chemistry Faculty)	Graduate School of Science and Engineering (Chemical Engineering)	11/2006	F.S.I.
		Kazakh-British Technical University (Faculty of Energy and Oil and Gas Industry)	Graduate School of Science and Engineering (Chemical Engineering)	11/2006	F.S.I.
	Netherlands	Leiden University (Science Faculty)	Graduate School of Science and Engineering (Science)	7/2012	F.S.I.
	Romania	Babes-Bolyai University of Cluj-Napoca (Faculty of Physics)	Research Laboratory for Nuclear Reactors	3/2008	F.S.I.
	Russia	Borskov Institute of Catalysis (BIC)	Research Laboratory for Nuclear Reactors	1/2008	F.S.I.
		Russian Academy of Sciences (Central Economics and Mathematics Institute)	Center for Agent-Based Social Systems Sciences	11/2008	F.S.I.
	Serbia	University of Belgrade (Vinca Institute of Nuclear Sciences)	Research Laboratory for Nuclear Reactors	4/2011	F.S.I.
		University of Belgrade (Faculty of Mechanical Engineering)	Interdisciplinary Graduate School of Science and Engineering	3/2012	F.S.I.
	Slovenia	University of Ljubljana (Faculty of Arts)	International Student Center	2/2007	F.S.I.
	Spain	University of Seville (Department of Condensed Matter Physics)	Materials and Structures Laboratory	3/2010	F.S.I.
		Technical University of Madrid	Graduate School of Science and Engineering (Engineering)	5/2010	F.S.I.
		University of Granada	Graduate School of Science and Engineering (Science)	10/2012	F.S.I.
		Technical University of Madrid	Graduate School of Science and Engineering (Engineering)	10/2012	S.
	Switzerland	University of Geneva (Faculty of Science)	School of Science, School of Engineering, Interdisciplinary Graduate School of Science and Engineering	4/2002	F.S.I.
		École Polytechnique Fédérale de Lausanne (EPFL) (Institute of Bioengineering)	Graduate School of Bioscience and Biotechnology	9/2009	F.S.I.
		École Polytechnique Fédérale de Lausanne (EPFL), (Institute of the Physics of Biological System (IPSB))	Graduate School of Bioscience and Biotechnology	9/2009	F.S.I.
	Sweden	Gotland University (School for Game Design, Technology and Learning Processes)	Center for the study of world civilizations	5/2012	F.S.I.
		Luleå University of Technology (Faculty of Engineering)	Interdisciplinary Graduate School of Science and Engineering	7/2012	F.S.I.
	U.K.	University of Cambridge (Department of Engineering)	Graduate School of Science and Engineering (Engineering)	4/2005	S.
		Imperial College of Science, Technology and Medicine (Faculty of Engineering)	Graduate School of Science and Engineering (Engineering)	4/2005	S.
		University of Oxford (Department of Engineering Science)	Graduate School of Science and Engineering (Engineering)	10/2006	S.
		University of Warwick (School of Engineering)	Graduate School of Science and Engineering (Engineering)	10/2007	S.
		University of Oxford (Department of Chemistry)	Graduate School of Science and Engineering (Engineering)	1/2008	S.
		University of Cambridge (Department of Chemistry)	Graduate School of Science and Engineering (Engineering)	4/2008	S.
		University of Oxford (Department of Materials)	Graduate School of Science and Engineering (Engineering)	5/2008	S.
		University of Bristol (Earthquake Engineering Research Centre)	Center for Urban Earthquake Engineering	1/2009	F.S.I.
		University of York (Department of Chemistry)	Chemical Resources Laboratory	2/2011	F.S.I.
		University of Manchester (Photon Science Institute, School of Chemistry)	Chemical Resources Laboratory	2/2011	F.S.I.
		Imperial College of Science, Technology and Medicine (Department of Chemistry)	Graduate School of Bioscience and Biotechnology	3/2011	F.S.I.
		University of Southampton	Graduate School of Science and Engineering (Engineering)	6/2011	F.S.I.
		University of Hull (Business School)	Center for Agent-Based Social Systems Sciences	9/2006	F.S.I.

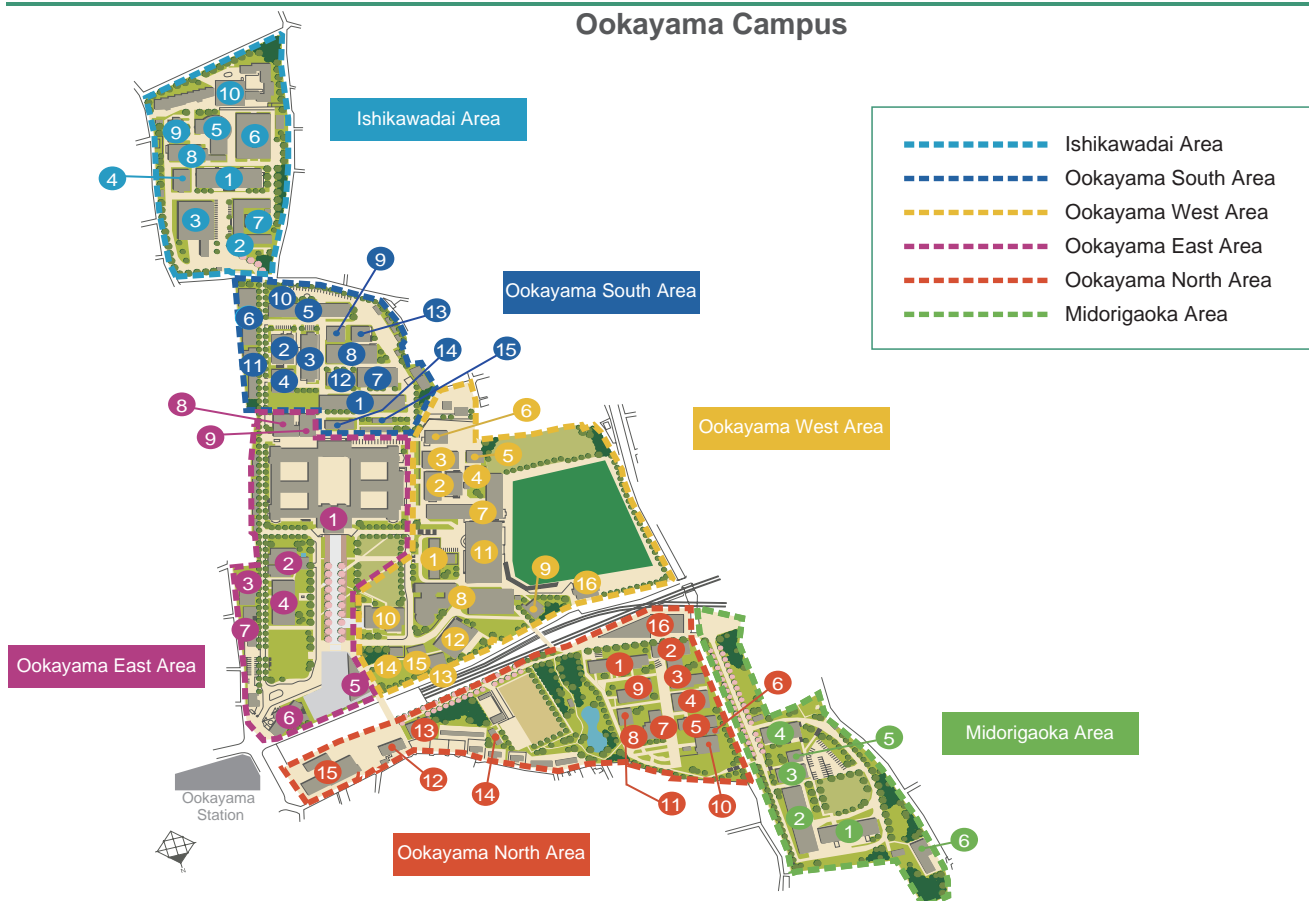
## INTERNATIONAL COLLABORATION

Country and Area		University/Institute	Counterpart	Concluded	Area of Exchange
Oceania	Australia	Royal Melbourne Institute of Technology (School of Architecture and Design, Faculty of Infrastructure and Environment)	School of Engineering (Architecture and Building Engineering)	8/1999	F.S.I.
		Curtin University (Department of Civil Engineering)	Global Scientific Information and Computing Center	8/2012	F.S.I.
Middle East	Bahrain	Royal College of Surgeons in Ireland Medical University of Bahrain	Organization for Life Design and Engineering	3/2013	F.S.I.
	Turkey	Yildiz Technical University (Electrical-Electronics Engineering Faculty, Mechanical Engineering Faculty, Civil Engineering Faculty, Chemical and Metallurgical Engineering Faculty, Naval Architecture and Maritime Faculty, Graduate School of Natural and Applied Sciences)	Graduate School of Science and Engineering (Engineering)	7/2011	F.S.I.
Africa	Egypt	Assiut University	Research Laboratory for Nuclear Reactors	2/2010	F.S.I.
		Egypt-Japan University of Science and Technology (E-JUST)	Graduate School of Science and Engineering (Engineering), Graduate School of Decision Science and Technology	1/2012	F.S.I.
Other	League	Asia-Oceania Top University League on Engineering (AOTULE)	Graduate School of Science and Engineering (Engineering)	3/2007	F.S.I.
	Consortium	European Japanese Exchange Project in Nuclear Disciplines (EUJEP)	Graduate School of Science and Engineering (Nuclear Engineering), Research Laboratory for Nuclear Reactors	6/2010	F.S.I.
		European Nuclear Education Network Association	Graduate School of Engineering (Nuclear Engineering), Research Laboratory for Nuclear Reactors	3/2009	F.S.I.
		Joint Research Center (JRC), European Commission, Rosatom, Russia	Center for Research into Innovative Nuclear Energy Systems	11/2010	F.I.
		Erasmus Mundus BEAM	Graduate School of Science and Engineering (Engineering)	7/2010	F.S.I.

Note: F stands for faculty, staff and/or researchers, S for students, and I for academic information.

## CAMPUS MAP

## Ookayama Campus



## Ishikawadai Area

1 Ishikawadai Bldg. 1	9,700 m <sup>2</sup>	6 Ishikawadai Bldg. 6	6,830 m <sup>2</sup>
2 Ishikawadai Bldg. 2	2,934 m <sup>2</sup>	7 Ishikawadai Lab. Bldg. 1	341 m <sup>2</sup>
3 Ishikawadai Bldg. 3	6,520 m <sup>2</sup>	8 Earth-Life Science Institute Bldg.	2,998 m <sup>2</sup>
4 Ishikawadai Bldg. 4	2,109 m <sup>2</sup>	9 Global Scientific Information and Computing Center (Collaboration)	1,180 m <sup>2</sup>
5 Ishikawadai Bldg. 5	2,653 m <sup>2</sup>	10 International House	4,453 m <sup>2</sup>

## Ookayama South Area

1 South Bldg. 1	7,545 m <sup>2</sup>	9 South Bldg. 9	3,753 m <sup>2</sup>
2 South Bldg. 2	2,528 m <sup>2</sup>	10 South Lecture Bldg.	187 m <sup>2</sup>
3 South Bldg. 3	9,544 m <sup>2</sup>	11 South Lab. Bldg. 2	615 m <sup>2</sup>
4 South Bldg. 4	2,793 m <sup>2</sup>	12 South Lab. Bldg. 4	1,191 m <sup>2</sup>
5 South Bldg. 5	7,443 m <sup>2</sup>	13 Research Laboratory of Ultra-High Speed Electronics	935 m <sup>2</sup>
6 South Bldg. 6	3,605 m <sup>2</sup>	14 Research Center for Low Temperature Physics	474 m <sup>2</sup>
7 South Bldg. 7	6,890 m <sup>2</sup>	15 Laboratory of Low Temperature Physics	204 m <sup>2</sup>
8 South Bldg. 8	9,379 m <sup>2</sup>		

## Ookayama West Area

1 West Bldg. 1	1,318 m <sup>2</sup>	8 West Bldg. 9	21,108 m <sup>2</sup>
2 West Bldg. 2	1,795 m <sup>2</sup>	9 Environment Safety Management Bldg.	374 m <sup>2</sup>
3 West Bldg. 3	5,237 m <sup>2</sup>	10 70th Anniversary Auditorium	1,301 m <sup>2</sup>
4 West Bldg. 4	3,262 m <sup>2</sup>	11 Gymnasium	4,811 m <sup>2</sup>
5 West Bldg. 5	1,287 m <sup>2</sup>	12 Student Hall (Cafeteria)	2,981 m <sup>2</sup>
6 West Bldg. 6	854 m <sup>2</sup>	13 Extracurricular Bldg. 1	798 m <sup>2</sup>
7 West Bldg. 7	964 m <sup>2</sup>	14 Extracurricular Bldg. 2	214 m <sup>2</sup>
8 West Bldg. 8 (W)	9,830 m <sup>2</sup>	15 Extracurricular Bldg. 3	298 m <sup>2</sup>
9 West Bldg. 8 (E)	8,000 m <sup>2</sup>	16 Extracurricular Bldg. 4	1,147 m <sup>2</sup>

## Ookayama East Area

1 Main Bldg.	26,600 m <sup>2</sup>	6 Museum and Centennial Hall	2,687 m <sup>2</sup>
2 Administration Bureau Bldg. (1・2)	2,998 m <sup>2</sup>	7 Office of Industry Liaison (1・2)	787 m <sup>2</sup>
3 Administration Bureau Bldg. 3	599 m <sup>2</sup>	8 East Bldg. 1	2,870 m <sup>2</sup>
4 Global Scientific Information and Computing Center (Computing)	3,507 m <sup>2</sup>	9 East Bldg. 2	2,756 m <sup>2</sup>
5 Institute Library	8,588 m <sup>2</sup>		

## Ookayama North Area

1 North Bldg. 1	3,275 m <sup>2</sup>	9 North Lab. Bldg. 6	998 m <sup>2</sup>
2 North Bldg. 2	3,330 m <sup>2</sup>	10 Van de Graaff Lab.	364 m <sup>2</sup>
3 North Lab. Bldg. 1	1,033 m <sup>2</sup>	11 Radioisotope Lab.	504 m <sup>2</sup>
4 North Lab. Bldg. 2A・2B	1,816 m <sup>2</sup>	12 Health Service Center	452 m <sup>2</sup>
5 North Lab. Bldg. 3A	695 m <sup>2</sup>	13 80th Anniversary Hall	704 m <sup>2</sup>
6 North Lab. Bldg. 3B	101 m <sup>2</sup>	14 Extracurricular Bldg. 5	121 m <sup>2</sup>
7 North Lab. Bldg. 4	732 m <sup>2</sup>	15 Tokyo Tech Front	4,076 m <sup>2</sup>
8 North Lab. Bldg. 5	200 m <sup>2</sup>	16 North Bldg. 3 (Environmental Energy Innovation Bldg.)	9,554 m <sup>2</sup>

## Midorigaoka Area

1 Midorigaoka Bldg. 1	6,595 m <sup>2</sup>	4 Midorigaoka Bldg. 4	1,256 m <sup>2</sup>
2 Midorigaoka Bldg. 2	1,509 m <sup>2</sup>	5 Midorigaoka Lecture Bldg.	193 m <sup>2</sup>
3 Midorigaoka Bldg. 3	2,554 m <sup>2</sup>	6 Research Center for Urban Infrastructure	1,155 m <sup>2</sup>



## CAMPUS MAP

## Suzukakedai Campus



B-Area	
1 B1 Bldg.	7,723 m <sup>2</sup>
2 B2 Bldg.	8,380 m <sup>2</sup>
3 B1•B2-Annex A	2,753 m <sup>2</sup>
4 B1•B2-Annex B	1,622 m <sup>2</sup>
5 B1•B2-Annex C	980 m <sup>2</sup>

S-Area	
1 S1 Bldg.	6,000 m <sup>2</sup>
2 S2 Bldg.	7,687 m <sup>2</sup>
3 S3 Bldg.	4,697 m <sup>2</sup>
4 S4 Bldg.	613 m <sup>2</sup>
5 S5 Bldg.	440 m <sup>2</sup>
6 S6 Bldg.	593 m <sup>2</sup>
7 S7 Bldg.	1,672 m <sup>2</sup>

R-Area	
1 R1 Bldg.	8,180 m <sup>2</sup>
2 R1-Annex A	1,395 m <sup>2</sup>
3 R1-Annex B	216 m <sup>2</sup>
4 R2 Bldg.	8,582 m <sup>2</sup>
5 R2-Annex A	656 m <sup>2</sup>
6 R2-Annex B	1,001 m <sup>2</sup>
7 R2-Annex C	711 m <sup>2</sup>
8 R3 Main Bldg.	4,865 m <sup>2</sup>
9 R3-Annex A	200 m <sup>2</sup>
10 R3-Annex B	225 m <sup>2</sup>
11 R3-Annex C	844 m <sup>2</sup>
12 R3-Annex D	1,500 m <sup>2</sup>

G-Area	
1 G1 Bldg.	9,571 m <sup>2</sup>
2 G2 Bldg.	7,665 m <sup>2</sup>
3 G3 Bldg.	11,669 m <sup>2</sup>
4 G4 Bldg.	2,053 m <sup>2</sup>
5 G4-Annex A	494 m <sup>2</sup>
6 G5 Bldg.	6,720 m <sup>2</sup>

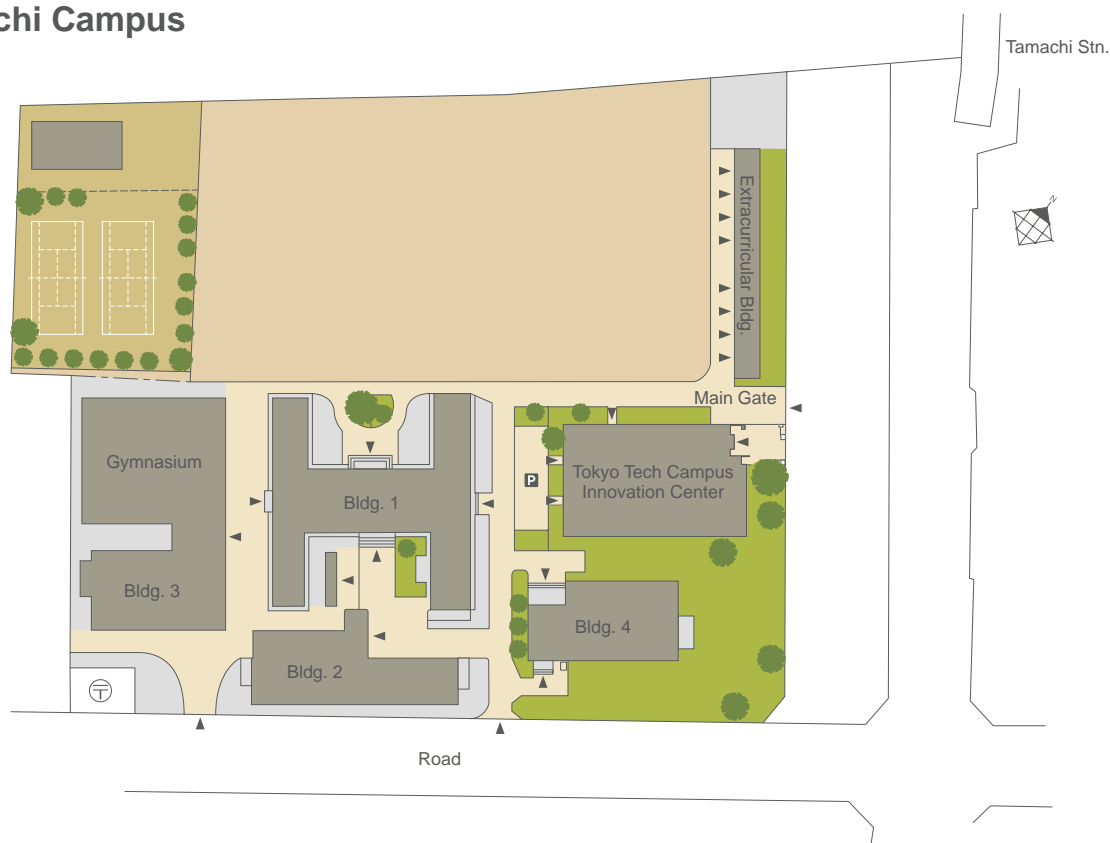
H-Area	
1 H1 Bldg.	3,191 m <sup>2</sup>
2 H2 Bldg.	

J-Area	
1 J1 Bldg.	6,277 m <sup>2</sup>
2 J2•J3 Bldg.	29,270 m <sup>2</sup>

Introductory Guide	
Graduate School of Bioscience and Biotechnology	B1-2
Interdisciplinary Graduate School of Science and Engineering	G1-5
Suzukake Hall	H1-2
Chemical Resources Laboratory	R1
Precision and Intelligence Laboratory	R2
Imaging Science and Engineering Laboratory	R2
Materials and Structures Laboratory	R3
Administration Office	J1 J2
Collaborative Research Bldg.	S1
Frontier Research Center	S2
Institute Library	S3

## Tamachi Campus



## Tokyo Tech Facilities

Location/Area	Facilities	Address
Ookayama	<b>Ookayama Campus</b> 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, Research Laboratory for Nuclear Reactors, School of Science, School of Engineering, Administration Bureau	2-12-1 Ookayama, Meguro-ku, Tokyo 152-8550
	Tokyo Institute of Technology International House	1-1-18 Ishikawa-cho, Ota-ku, Tokyo 145-0061
Suzukakedai	<b>Suzukakedai Campus</b> Graduate School of Bioscience and Biotechnology, Interdisciplinary Graduate School of Science and Engineering, Chemical Resources Laboratory, Precision and Intelligence Laboratory, Materials and Structures Laboratory, School of Bioscience and Biotechnology, Collaborative Research Bldg. Administration Office	4259 Nagatsuta-cho, Midori-ku, Yokohama, Kanagawa Prefecture 226-8503
Tamachi	<b>Tamachi Campus</b> Tokyo Tech High School of Science and Technology	3-3-6 Shibaura, Minato-ku, Tokyo 108-0023
Matsukazedai	Shofu Gakusha Dormitory	21-13 Matsukazedai, Aoba-ku, Yokohama, Kanagawa Prefecture 227-0067
Umegaoka	Umegaoka Dormitory	17-2 Umegaoka, Aoba-ku, Yokohama, Kanagawa Prefecture 227-0052
Toda	Toda Boat House	1-55 Toda-Koen, Toda-shi, Saitama Prefecture 335-0024
Enzan	Yanagisawa-Toge Mountain Hut	2319-1 Aza-Namezawa, Oaza-Oyashiki, Enzan, Koshu-shi, Yamanashi Prefecture 402-0211
Kusatsu	Kusatsu-Shirane Volcano Observatory	641-36 Aza-Takijirihara, Oaza-Kusatsu, Kusatsu-cho, Agatsuma-gun, Gunma Prefecture 377-1711

# HISTORY

## History

### 1881 May

Tokyo Institute of Technology was founded by the Japanese Government, Department of Education, as the Tokyo Vocational School.

### 1890 March

Tokyo Vocational School was renamed Tokyo Technical School.

### 1901 May

Tokyo Technical School was renamed Tokyo Higher Technical School.

### 1929 April

The status of Tokyo Higher Technical School was elevated to a degree-conferring university with the name **Tokyo Kogyo Daigaku** (Tokyo Institute of Technology).

### 1949 May

The enactment of the National School Establishment Law promoted the reorganization of Tokyo Institute of Technology so as to comply with the nation's education system reform, extending its three-year courses into four years and establishing the School of Engineering within the university.

### 1951 April

The former Denpa Kogei High School and Kogei High School of Chiba University were integrated into the Technical High School, the Institute's affiliated high school.

### 1953 April

The Graduate School of Engineering was established.

### 1954 April

Tokyo Tech's six research laboratories: the Research Laboratory of Building Materials, the Research Laboratory of Resources Utilization, the Research Laboratory of Precision Machinery, the Research Laboratory of Ceramic Industry, the Research Laboratory of Electronics, and the Research Laboratory of Fuel Science, which were established in 1934, 1939, 1939, 1943, 1944, and 1944, respectively, were integrated and reorganized into four research laboratories: the Research Laboratory of Building Materials, the Research Laboratory of Resources Utilization, the Precision and Intelligence Laboratory and the Research Laboratory of Ceramic Industry.

### 1955 July

The School of Engineering was renamed the School of Science and Engineering.

### 1956 April

The Graduate School of Engineering was renamed the Graduate School of Science and Engineering.

### 1958 April

The Research Laboratory of Building Materials and the Research Laboratory of Ceramic Industry were integrated and reorganized into the Research Laboratory of Engineering Materials.

### 1964 April

The Research Laboratory for Nuclear Reactors was established.

### 1967 June

The School of Science and Engineering was divided into the School of Science and the School of Engineering. Tokyo Institute of Technology's affiliated high school, the Technical High School, was attached to the School of Engineering.

### 1971 April

The Health Service Center was established.

### 1975 April

The Interdisciplinary Graduate School of Science and Engineering was established at the Nagatsuta Campus (the current Suzukakedai Campus).

### 1976 May

The Computer Center was established.

### 1979 April

The International Cooperation Center for Science and Technology was established.

### 1982 April

The Center for Research Cooperation and Information Exchange was established.

### 1983 April

The Research Center for Educational Facilities was established.

### 1988 April

The Education Center for Foreign Students was established. Also the Kusatsu-Shirane Volcano Observatory was established.

### 1989 May

The Gene Research Center was established in Ookayama. (Later it was moved to the Suzukakedai Campus.)

### 1990 June

The School of Bioscience and Biotechnology was established on the Nagatsuta Campus.

### 1991 April

The Experimental Center for Very Low Temperature and Energy Technique, established in 1981, was reorganized into the Research Center for Very Low Temperature Systems.

### 1992 April

The Graduate School of Bioscience and Biotechnology was established on the Nagatsuta Campus. The Research Center for Carbon Recycling and Utilization was established.

### 1993 April

The Research Center for Educational Facilities was reorganized into the Research and Development Center for Educational Facilities.

### 1994 April

The Graduate School of Information Science and Engineering was established.

### June

The Education Center for Foreign Students was reorganized into the International Student Center. The Research Center for Quantum Effect Electronics was established. The Research Center for Experimental Biology was established.

### 1996 April

The Graduate School of Decision Science and Technology was established.

### May

The Foreign Language Research and Teaching Center was established. The Research Laboratory of Engineering Materials was reorganized into the Materials and Structures Laboratory.

### 1997 April

The Radioisotope Research Center was established.

### 1998 May

The Center for Research Cooperation and Information Exchange was reorganized into the Frontier Collaborative Research Center.

### 1999 April

The Center for Research in Advanced Financial Technology was established.

**2000 April**

The Kusatsu-Shirane Volcano Observatory was reorganized into the Volcanic Fluid Research Center. The International Research Center of Macromolecular Science was established.

**2001 April**

The Computer Center and the International Cooperation Center for Science and Technology were reorganized into the Global Scientific Information and Computing Center. The Research Center for Very Low Temperature Systems was reorganized into the Research Center for Low Temperature Physics.

**May**

The Nagatsuta Campus was renamed the Suzukakedai Campus.

**November**

The Research Strategy Office was established.

**2002 April**

The Research Center for Carbon Recycling and Utilization was reorganized into the Research Center for Carbon Recycling and Energy. The Evaluation Office and the International Planning Office were established.

**October**

The General Safety Management Center and the Center for Public Relations and Coordination were established.

**2003 April**

The Research and Development Center for Educational Facilities was reorganized into the Research Center for Educational Facilities. The Gene Research Center, the Research Center for Experimental Biology, and the Radioisotope Research Center were integrated into the Center for Biological Resources and Informatics.

**May**

The Department of Precision Machinery Systems was renamed the Department of Mechano-Micro Engineering.

**September**

The Center for Urban Earthquake Engineering was established. The Office of Industry Liaison was established. The Educational Planning Office was established.

**2004 April**

Tokyo Institute of Technology was reestablished as an independent administrative institution with the name "**National University Corporation Tokyo Institute of Technology**." The Research Center for Quantum Effect Electronics was reorganized into the Quantum Nanoelectronics Research Center. The Planning Office and the Financial Management Office were established.

**2005 April**

The Graduate School of Innovation Management was established. The Technical High School attached to the School of Engineering was reorganized into the Tokyo Tech High School of Science and Technology. The Center for Research in Advanced Financial Technology was reorganized. The Large-scale Knowledge Resources Center, the Research Center for Nanometer-Scale Quantum Physics, the Bio-Frontier Research Center, the Center on Agent Based Social Systems Sciences, the Center for Molecular Science and Technology, the Research Center for the Evolving Earth and Planets, and the Research Center for the Science of Institutional Management of Technology were established. Also established was the Collaboration Center for Design and Manufacturing. The Department of Information Processing and the Department of Advanced Applied Electronics, both in the Interdisciplinary Graduate School of Science and Engineering, were integrated and reorganized into the Department of Electronics and Applied Physics and the new Department of Information Processing.

**September**

The Emerging Nanomaterial Research Center was established.

**October**

The Integrated Research Institute was established.

**2006 January**

The Center for Research into Innovative Nuclear Energy Systems was established.

**April**

The Center for Materials Design affiliated with the Materials and Structures Laboratory was reorganized into the Secure Materials Center affiliated with the Materials and Structures Laboratory. The Super-Mechano Systems R&D Center, the Student Services Center, and the Center for the Study of World Civilizations were established.

**July**

The Global Edge Institute was established.

**December**

The Center for Photonic Nano-Device Integrated Engineering was established.

**2007 April**

The new Admissions Office was established. The Technical Department was established. The Department of Civil Engineering was renamed the Department of Civil and Environmental Engineering.

**October**

The Information Infrastructure Management Office was established. The Center for Public Relations and Coordination was reorganized into the Center for Public Information and the Center for University Communications and Coordination. The Strategic Management Office was established.

**November**

The Frontier Collaborative Research Center, the 80th Anniversary Center for Research, Collaborative Research Building, the Venture Business Laboratory and the Incubation Center were merged into the new Frontier Research Center.

**2008 April**

The Secure Device Research Center affiliated with the Precision and Intelligence Laboratory was established. The Photovoltaics Research Center was established. The Inter-Departmental Organization for Informatics was established.

**May**

The Asia-Africa Biology Research Center was established.

**July**

The Gender Equality Center was established. The Productive Leader Incubation Platform was established.

**October**

The Office for the 130th Anniversary Project was established.

**November**

The Center for CompView Research and Education was established.

**2009 March**

The Tokyo Tech Front was constructed.

**April**

The Multidisciplinary Research Center For Energy Science was established. The Career Advancement Professional School was established. The Tokyo Tech Archive Initiative was established.

**May**

The University Management Center was established.

**August**

The Research Project Support Center was established.

**November**

The Multidisciplinary Research Center For Energy Science was reorganized into the Inter-Departmental Organization for Environment and Energy.



## HISTORY

**2010 April**

The Microsystem Research Center was reorganized into the Photonics Integration System Research Center affiliated with the Precision and Intelligence Laboratory. The International Nuclear Research Cooperation Center affiliated with the Research Laboratory for Nuclear Reactors was established. The Imaging Science and Engineering Laboratory affiliated with the Graduate School of Science and Engineering was reorganized into the Imaging Science and Engineering Laboratory. The Frontier Research Center was reorganized. The Solutions Research Laboratory was established. The Research Center for Carbon Recycling and Energy (Research and Service Centers) was reorganized into the Research Center for Carbon Recycling and Energy (Common Facilities). The Advanced Education Research Center was established. The Osmotic Power Research Center was established. Conclusion of operations at the Large-Scale Knowledge Resources Center. The Integrated Research Institute was reorganized.

**October**

The Energy Conservation Promotion Office was established.

**November**

The Research Center for Low Temperature Physics (Research and Service Centers) was reorganized into the Research Center for Low Temperature Physics (Common Facilities). The Organization for Life Design and Engineering was established. Conclusion of operations at the Strategic Management Office.

**2011 January**

The Center for Liberal Arts was established.

**April**

The Center for Research and Development of Educational Technology (Research and Service Centers) was reorganized into the Center for Research and Development of Educational Technology (Common Facilities). The TITECH Earth Database Center was established. The ICE Cube Center was established. The Centennial Hall was reorganized into the Museum. Conclusion of operations at the Center for Advanced Materials Analysis. The Academy for Global Leadership was established.

**August**

The University Contents Utilization Center was established.

**October**

A section of the Center for Biological Resources and Informatics was reorganized into the Radiation Research and Management Center. The Admissions Center was established.

**December**

The Academy for Co-Creative Education of Environment and Energy Science was established. The Education Academy of Computational Life Sciences was established. The Academy for Global Nuclear Safety and Security Agent was established.

**2012 April**

Conclusion of operations at the Emerging Nanomaterial Research Center. Conclusion of operations at the Center for Photonic Nano-Device Integrated Engineering. Conclusion of operations at the Tokyo Tech Archive Initiative.

**October**

Conclusion of operations at the Asia-Africa Biology Research Center.

**December**

Earth-Life Science Institute was established.

**2013 April**

The Center for University Communications and Coordination and the Office for the 130th Anniversary Project were reorganized into the Public Outreach Office. The Department of Communications and Integrated Systems was renamed the Department of Communications and Computer Engineering. The Research Center for Educational Facilities was reorganized. Conclusion of operations at the Research Center for the Evolving Earth and Planets. Conclusion of operations at the Center for CompView Research and Education. The Research Center for Nanometer-Scale Quantum Physics was reorganized into the International Research Center for Nanoscience and Quantum Physics. Innovator and Inventor Development Platform was established. Conclusion of operations at the Productive Leader Incubation Platform.

**August**

Conclusion of operations at the International Research Center of Macromolecular Science.

**October**

The Research Project Support Center was reorganized into the Research Administration Center.

## Development of the Institute

As of May 1, 2013

	School		Graduate School				Land (m <sup>2</sup> )	Building (m <sup>2</sup> )	Number of Books (Volumes)
	Admitted	Number of Graduates	Master's Course		Doctoral Course				
			Admitted	Number of Degrees Conferred	Admitted	Number of Degrees Conferred			
1929	150	0						3,834	21,525
1940	252	178					262,902	54,542	51,848
1945	400	358					293,345	56,383	72,555
1950	460* 300	392					312,211	58,499	92,925
1955	355	335	135	37	68		309,514	71,114	111,173
1960	505	387	145	44	73	12	309,484	78,581	145,107
1965	705	590	213	205	87	37	308,737	111,166	200,208
1970	895	773	294	348	149	72	484,515	146,473	284,677
1975	774	790	617	512	205	68	510,683	185,309	360,499
1980	774	775	643	613	248	91	529,515	245,791	444,765
1985	836	776	665	694	250	86	531,848	261,968	538,884
1990	1,182	1,107	720	840	250	139	533,242	277,672	647,330
1995	1,317	1,282	908	1,154	331	253	535,239	319,404	750,172
2000	1,068	1,237	1,290	1,488	534	349	534,728	362,769	858,316
2001	1,068	1,188	1,290	1,497	534	346	534,728	368,935	871,089
2002	1,068	1,243	1,290	1,538	534	291	534,728	396,634	886,484
2003	1,068	1,156	1,291	1,559	535	357	534,728	419,728	879,397
2004	1,068	1,113	1,292	1,642	536	313	566,366	428,653	891,753
2005	1,068	1,175	1,322 (30)	1,633	543	382	566,366	428,492	904,293
2006	1,068	1,188	1,322 (30)	1,671	543	370	566,544	430,079	771,003
2007	1,068	1,161	1,322 (30)	1,677	543	387	566,544	430,171	774,552
2008	1,068	1,168	1,322 (30)	1,648	543	387	566,605	439,433	774,712
2009	1,068	1,128	1,327 (35)	1,546	546	384	566,605	447,714	780,421
2010	1,068	1,130	1,327 (35)	1,726	546	338	567,688	474,202	793,390
2011	1,068	1,164	1,584 (40)	1,667	567	396	568,538	468,770	801,345
2012	1,068	1,140	1,584 (40)	1,650	567	376	566,922	467,667	800,814

Notes: 1) An asterisk (\*) represents the number of students admitted under the old education system.  
2) Figures given in parentheses represent the number of Professional Master's Course graduates.

# MEMBERS OF THE BOARD, COMMITTEES, AND COUNCIL

As of October 2013

## ■ The Board

MISHIMA Yoshinao	President
OKADA Kiyoshi	Executive Vice President for Planning and Personnel
MARUYAMA Toshio	Executive Vice President for Education and International Affairs
TATSUMI Takashi	Executive Vice President for Research
OTANI Kiyoshi	Executive Vice President for Finance and Public Relations
SHIMIZU Yasutaka	Auditor
SUZUKI Motoyuki	Auditor

## ■ Vice President

YAMAGUCHI Satoshi	Vice President for General Affairs
KINOSHITA Shione	Vice President for Human Rights
MIZUMOTO Tetsuya	Vice President for Education
UYEMATSU Tomohiko	Vice President for Safety and Compliance
MARUYAMA Tsuyoshi	Vice President for Special Mission

## ■ Management Committee

ARIKAWA Yoshiko	Executive Vice President, Japan Women's University
KUDO Tomonori	Auditor, Tokyo Denki University
KOBATAKE Hidefumi	President, Institute of National Colleges of Technology, Japan
SHOYAMA Etsuhiko	Chairman Emeritus, Hitachi, Ltd. President, Tokyo Tech Alumni Association (Kuramae Kogyokai)
SEKI Nobuo	Former President & CEO, Chiyoda Corporation
DOI Miwako	Chief Fellow, Corporate Research & Development Center, Toshiba Corporation
NAKAJIMA Kunio	Director, Tokyo Tech Alumni Association (Kuramae Kogyokai)
HASHIMOTO Genichi	Former President, NHK (Japan Broadcasting Corporation)
MISHIMA Yoshinao	President
OKADA Kiyoshi	Executive Vice President for Planning and Personnel
MARUYAMA Toshio	Executive Vice President for Education and International Affairs
TATSUMI Takashi	Executive Vice President for Research
OTANI Kiyoshi	Executive Vice President for Finance and Public Relations
ENKAWA Takao	Professor, Graduate School of Decision Science and Technology
YOKOTA Shinichi	Professor, Precision and Intelligence Laboratory
YAMAGUCHI Satoshi	Vice President for General Affairs Director-General

## ■ Education and Research Council

MISHIMA Yoshinao	President
OKADA Kiyoshi	Executive Vice President for Planning and Personnel
MARUYAMA Toshio	Executive Vice President for Education and International Affairs
TATSUMI Takashi	Executive Vice President for Research
OTANI Kiyoshi	Executive Vice President for Finance and Public Relations
NISHIMORI Hidetoshi	Dean, Graduate School of Science
KISHIMOTO Kikuo	Dean, School of Science
SEKINE Mitsuo	Dean, Graduate School of Engineering
UCHIKAWA Keiji	Dean, School of Engineering
YONEZAKI Naoki	Dean, Graduate School of Bioscience and Biotechnology
MUTO Shigeo	Dean, School of Bioscience and Biotechnology
FUJIMURA Shuzo	Dean, Interdisciplinary Graduate School of Science and Engineering
AKITA Munetaka	Dean, Graduate School of Information Science and Engineering
SATO Makoto	Dean, Graduate School of Information Science and Engineering
ITO Mitsuru	Dean, Graduate School of Information Science and Engineering
YANO Toyohiko	Dean, Graduate School of Information Science and Engineering
YAMADA Kotaro	Dean, Graduate School of Decision Science and Technology
OKADA Tetsuo	Dean, Graduate School of Decision Science and Technology
SUSA Masahiro	Dean, Graduate School of Innovation Management
SATOH Isao	Director, Chemical Resources Laboratory
NAKAMURA Satoshi	Director, Precision and Intelligence Laboratory
YUASA Hideya	Director, Materials and Structures Laboratory
	Director, Research Laboratory for Nuclear Reactors
	Professor, Graduate School of Science
	Professor, Graduate School of Science
	Professor, Graduate School of Engineering
	Professor, Graduate School of Engineering
	Professor, Graduate School of Bioscience and Biotechnology
	Professor, Graduate School of Bioscience and Biotechnology

KATO Masaharu	Professor, Interdisciplinary Graduate School of Science and Engineering
HOTTA Eiki	Professor, Interdisciplinary Graduate School of Science and Engineering
NADAOKA Kazuo	Professor, Graduate School of Information Science and Engineering
WATANABE Osamu	Professor, Graduate School of Information Science and Engineering
ITO Kenji	Professor, Graduate School of Decision Science and Technology
NAKAI Norihiro	Professor, Graduate School of Decision Science and Technology
HIGA Kunihiko	Professor, Graduate School of Innovation Management
YAMAGUCHI Shinobu	Professor, Global Scientific Information and Computing Center

## ■ President Nomination Committee

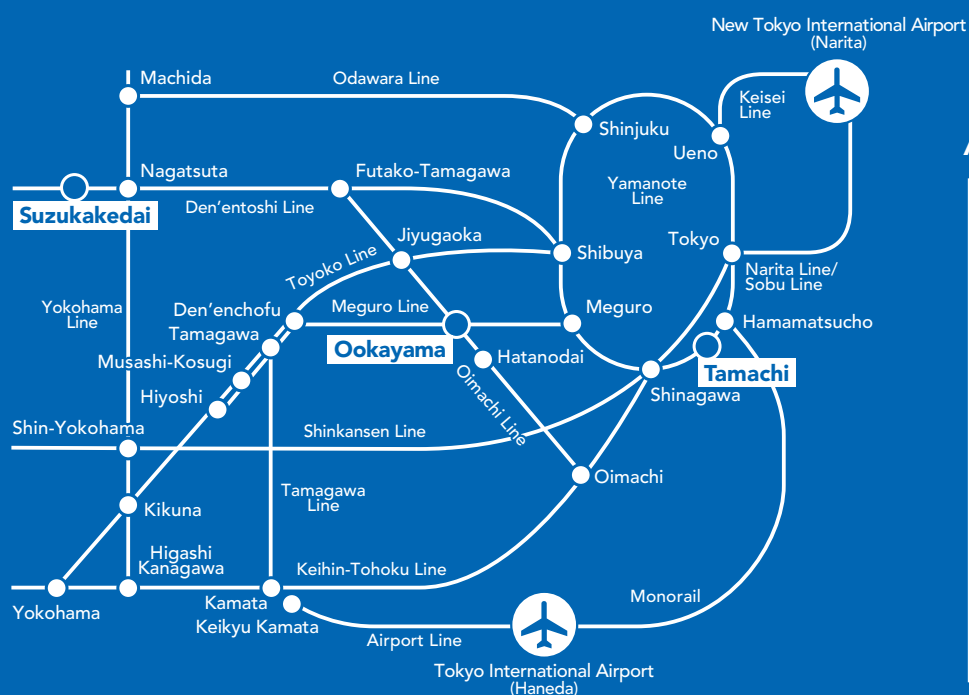
ARIKAWA Yoshiko	Executive Vice President, Japan Women's University
SHOYAMA Etsuhiko	Chairman Emeritus, Hitachi, Ltd. President, Tokyo Tech Alumni Association (Kuramae Kogyokai)
SEKI Nobuo	Former President & CEO, Chiyoda Corporation
NAKAJIMA Kunio	Director, Tokyo Tech Alumni Association (Kuramae Kogyokai)
HASHIMOTO Genichi	Former President, NHK (Japan Broadcasting Corporation)
NISHIMORI Hidetoshi	Dean, Graduate School of Science
SATOH Isao	Professor, Graduate School of Engineering
SEKINE Mitsuo	Dean, Graduate School of Bioscience and Biotechnology
FUJIMURA Shuzo	Dean, Graduate School of Innovation Management
SATO Makoto	Director, Precision and Intelligence Laboratory
OKADA Kiyoshi	Executive Vice President

## ■ Deans & Directors

NISHIMORI Hidetoshi	Dean, Graduate School of Science
KISHIMOTO Kikuo	Dean, School of Science
SEKINE Mitsuo	Dean, Graduate School of Science and Engineering
UCHIKAWA Keiji	Dean, Graduate School of Engineering
YONEZAKI Naoki	Dean, School of Engineering
MUTO Shigeo	Dean, Graduate School of Bioscience and Biotechnology
FUJIMURA Shuzo	Dean, School of Bioscience and Biotechnology
AKITA Munetaka	Dean, Interdisciplinary Graduate School of Science and Engineering
SATO Makoto	Dean, Graduate School of Information Science and Engineering
ITO Mitsuru	Dean, Graduate School of Information Science and Engineering
YANO Toyohiko	Dean, Graduate School of Decision Science and Technology
TAKAHASHI Eiichi	Dean, Graduate School of Innovation Management
SAITO Yoshio	Director, Chemical Resources Laboratory
ITO Toshiya	Director, Precision and Intelligence Laboratory
	Director, Materials and Structures Laboratory
	Director, Research Laboratory for Nuclear Reactors
	Director, Institute Library
	Principal, Tokyo Tech High School of Science and Technology
	Director, Technical Support Department

## ■ Administration Bureau

YAMAGUCHI Satoshi	Director-General
KOJIMA Hirotaka	Director, General Affairs Department
SAKAGUCHI Hiroshi	Director, Finance Department
KANEKO Tadatoshi	Director, International Affairs Department
MATSUMOTO Taneaki	Director, Student Service Department
NISHIYAMA Kazunori	Director, Research Promoting Department
KOYAMA Kaoru	Director, Facilities Department
TOMURA Kazuhiro	Director, Suzukakedai Administration Office



## ACCESS

### Ookayama Campus

Ookayama Station on the Tokyu Oimachi and Tokyu Meguro Lines

**About 45 minutes from Haneda Airport**

**About 100 minutes from Narita Airport**

**About 30 minutes from Tokyo Station**

### Suzukakedai Campus

Suzukakedai Station on the Tokyu Den'entoshi Line

**About 70 minutes from Haneda Airport**

**About 130 minutes from Narita Airport**

**About 55 minutes from Tokyo Station**

### Tamachi Campus

Tamachi Station on the JR Yamanote and Keihin-Tohoku Lines

**About 25 minutes from Haneda Airport**

**About 90 minutes from Narita Airport**

**About 10 minutes from Tokyo Station**