



Tohoku University has been committed to the "Research First" principle and "Open Door" policy since its foundation, and is internationally recognized for its outstanding standards in education and research.

The university contributes to world peace and equity by devoting itself to research useful in solving societal problems, and educating human resources in leadership skills.

HISTORY H I S T O R Y

Tohoku University was founded in 1907 as the third Imperial University of Japan, following Tokyo Imperial University and Kyoto Imperial University. From its start, it displayed to the world an unswerving commitment to an "Open Door" policy. Departing from the norms of other imperial universities, it accepted graduates from technical schools and higher normal schools, and despite opposition from the government at that time, became Japan's First University to admit female students in 1913 (admitting three in that year).

At the time of its founding, Tohoku University was able to attract a group of young and brilliant researchers who had trained around the world to serve on its faculty. For this reason, a "Research First" principle was established, calling upon scholars to not only pursue highly productive research but to also put their findings to work in the teaching of their students. In addition to this, Tohoku University has nurtured a tradition of "Practice Oriented Research and Education," in which the results of cutting edge research are being put to use for the good of society and the improvement of living standards. Evidence of our pioneering practice (before the Second World War) includes the establishment of local venture businesses which have contributed to regional industry, and our status as the nation's center for research on family law; the domestic branch of law which is closely associated with our daily lives.

This spirit, which continued strongly through World War II and the rapid economic growth of the postwar period, remains alive and can be seen in today's new era of advanced globalization.

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*This Annual Review 2011 covers activities conducted from April 2010 to July 2011.

*Personal information of those who are in this Annual Review including affiliation, position, and age is not current.



Our Path Toward Becoming a World-Class University

Ever since Tohoku University was established in 1907, our philosophy has always been to put "Research First," maintain an "Open-Door" policy, and to emphasize "Practice-Oriented Research and Education." Under these principles, we have conducted research and education at the world's highest level. Tohoku University's Annual Review 2011 describes our remarkable achievements and highlights of the previous academic year.

Human society today is facing a variety of difficult and complex challenges that need to be addressed on a global basis. By applying the knowledge we have accumulated over the past century, and by continuing our efforts to achieve innovation in the fields of research and education, our university is determined to play a leading role as a "world-class university" in developing human society.

That is why Tohoku University announced the "Inoue Plan 2007" in March 2007, which outlined an action plan with five pillars; Education, Research, Social contribution, Campus environment, and Organization/ Management.

Four years have now passed since the plan was drawn up, and during this period the university has made steady progress. In the field of education, for example, we have moved forward to develop our new proprietary liberal arts curriculum and globalize our educational programs, including the expansion of the overseas internship program, and the Global 30 Project for Establishing Core Universities for Internationalization. Further, we founded the "International Advanced Research and Education Organization" to foster researchers who will lead science in the 21st century with their excellent, creative and comprehensive knowledge. We also and inaugurated the Advanced Institute for Materials Research (WPI-AIMR) following the adoption of the World Premier International Research Center Initiative (WPI). Thus, we have created novel research frontiers that integrate different fields. We are also pursuing a number of highly original strategies; improving our global presence with participation in The Association of Pacific Rim Universities (APRU), the Top Industrial Managers for Europe (T.I.M.E.), and The Association of

> President of Tohoku University Akihisa Inoue

East Asian Research Universities (AEARU); developing our campus to meet international standards; introducing a personnel system to improve global competitiveness; establishing the Tohoku University Foundation; and implementing external evaluation by the European University Association (EUA).

2011 — Even a hub of research and education such as Tohoku University must question its purpose during this time of ongoing and unprecedented global upheaval. The tragedy of the March 11, 2011 Great East Japan Earthquake made all engaged in academic research keenly aware that as specialists they cannot just dismiss their obligations by saying a disaster was "unforeseeable," but rather it is their responsibility to take up the challenges that such events pose with renewed determination. Tohoku University's mission hereafter will be to build public understanding for the steps that must now be taken, in addition to striving side-by-side with a multitude of others in order to contribute to the development of human society as a university worthy of the trust, respect and affection that the community has given it.

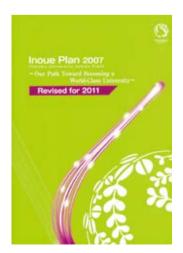


Tohoku University News and Events (April 2010 — July 2011)

2010	
Apr 2	"Inoue Plan 2007 (Tohoku University Action Plan, Revised for 2010)" announced
Apr 6	2010 Tohoku University Entrance Ceremony
Jul 28, 29	Tohoku University Open Campus
Sep 24	Tohoku University Commencement Ceremony
Oct 9, 10	Tohoku University Homecoming Day
Oct 28 - 31	Tohoku University Festival 2010
December 31	"Yosuke Yamashita's Silvester," Silvester Concert at the Tohoku University Kawauchi Hagi Hall
2011	
Feb 25, 26	2011 Tohoku University Entrance Examination: First Examination for General Admission
Mar 11	Great East Japan Earthquake occurred
May 6	Faculty Commencement Ceremony/Orientation for New Students of each Faculty
May 7	All Campus Orientation/New Students Special Seminar
Jun 30	"Inoue Plan 2007 (Tohoku University Action Plan, Revised for 2011)" announced
Jul 27, 28	Tohoku University Open campus

inoue Plan 2007 (Revised for 2011)

This is the latest edition of the Tohoku University Action Plan. It deals with challenges on which President Inoue wants to focus in aiming to be a world-leading university. It consists of the five pillars: education, research, social contribution, the campus environment, and organization/management. The university periodically reviews the plan according to changes in the university environment and steady progress made on the plan, and updates the contents to keep it on course.



1 Education	As a "Transmitter of knowledge," we will restructure the system of instruction we use to pass along our store of accumulated wisdom, and as a "Creator of knowledge," we will strive to produce future leaders with a strong liberal arts background, specialized expertise, and an international outlook.
2 Research	As a "Creator of knowledge" our goal must be to develop original, innovative research structures capable of producing world-class results through strategic, original research as well as through basic research carried out with a long-term perspective.
3 Social contribution	As an institution "open to the community and open to the world," we will contribute to the progress of human society by applying our human and intellectual resources to the community.
4 The campus environment	Establish a world-class campus environment to support the diverse research and educational activities that will need to be carried out by the university in its capacity as a "Creator of knowledge" and as a "Transmitter of knowledge."
5 Organization/ Management	Establish a management infrastructure with a sound financial base capable of transforming our university into an "Enterprise of knowledge," which can adapt to changes in the environment surrounding the university and better respond to the needs of the times.

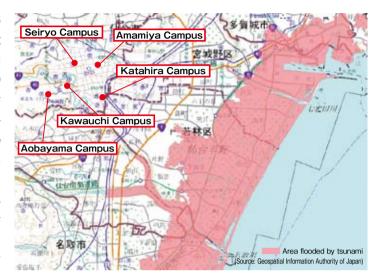
http://www.bureau.tohoku.ac.jp/president/open/plan/plan2011.pdf

The Great East Japan Earthquake

On March 11, 2011, at 2:46 in the afternoon, a great earthquake hit the Tohoku region. It was of magnitude 9.0 and had a maximum intensity of 7 on the Japanese sevenstage scale, the greatest in the history of seismic observation in Japan.

Tremendous damage was caused to the coastal areas by tsunami.

The five campuses of the universit were not damaged by tsunami.



Status of damage at Tohoku University

Some facilities and equipment in the university were severely damaged. Some walls were crumbled, and research equipment was destroyed. However, the campuses were safe and there were no injuries among the students and staff. A risk evalution survey that was implemented afterward indicated that 90% of the buildings were safe to use.



Research building with damaged walls (Kawauchi Campu



Books scatterd around Tohoku University Library (Kawauchi Campus)



Research equipment damaged (Katahira Campus



0% of the buildings were severely damaged, (Aobayama Campu

Status of Tohoku University restoration

To deal with damage to the facilities and equipment, the undamaged ones are being shared. Our university is now restoring not just the original educational environment, but also moving forward to become an even more excellent education and research institution.

On May 6, 2011, the Entrance Ceremonies, which had been postponed, were held in each faculty. On May 9, classes were started, and lectures, seminars and practical training have since been resumed. Students are active again in club activities, so the campuses are as lively as they were as before the earthquake.



Entrance Ceremony at the faculties and the graduate schools



Lively club activities



Lectures being conducted as usual



Students undergoing practical training

After the Great East Japan Earthquake of March 11, inaccurate rumors were spread about the effects of the earthquake, tsunami and radioactivity on education/research at Tohoku University.

In order to correct such rumors, further promote education, research and social contribution, and showcase our world-leading university's contributions to world society domestically and overseas, we have conducted various university-wide restoration



publicity campaigns since July 1. For these, we have created a variety of content, such as establishing a formal logo mark for the campaigns.

Status of restoration of Sendai City

Disaster damage was minor in the central part of Sendai City, where Tohoku University is located. The infrastructure, living environment and traffic environment have been restored and put back in place. People are once again living normal lives there.

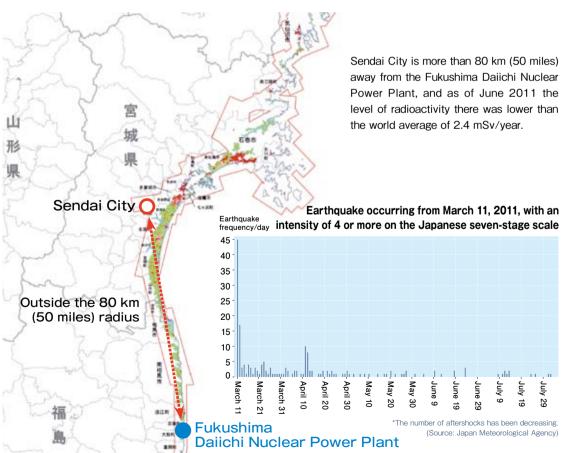
Tohoku Shinkansen bullet train service was restored to its normal time table on September 23. Sendai Airport was also re-opened on September 25.





The Shinkansen Line is operating normally (photo shows JR Sendai Station)

Sun Mall Ichibancho Street, busy and lively with people (near Katahira Campus)



(Source: Geospatial Information Authority of Japan)

Aid activities of Tohoku University

Our university has made contributions to the local community in various forms since immediately after the earthquake.

- O Disseminating earthquake O Providing robots to work in disaster information from experts
- O Providing medical care at Tohoku O Providing and storing archive University Hospital
- O Radiation monitoring etc. by O Energetic volunteerism by students radiation exparts
- areas
- information on the earthquake
 - in activities for the stricken areas







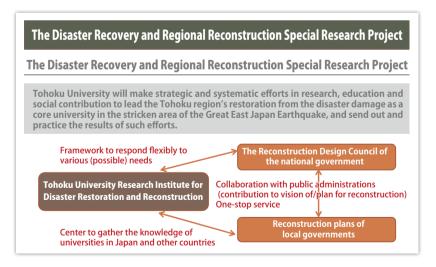
Picture of people carrying medical supplies

Robot working in a disaster area

Student volunteers cleaning a disaster victim's hous (Yamamoto-cho, Watari-gun, Miyagi Prefecture)

The Disaster Recovery and Regional Reconstruction Special Research Project

In order to play a role in contributing to global human society, as a university that experienced the most disastrous earthquake in Japan on record and as a World-Class university, Tohoku University established the Disaster Recovery and Regional Reconstruction Special Research Project.



In this project Tohoku University pledges to make strategic and systematic efforts in research, education, and social contribution activities. The university will lead the regional reconstruction by mobilizing its accumulated knowledge and disseminate and practice the achievements of such efforts. Tohoku University will strive for the "creation of a safe and secure society" where people can co-exist with nature for the next generation. The university will contribute to the restoration of the region, Japan and human society.

In 1991, the world's first leading-edge research institution on earthquake and tsunami disaster prevention, the "Tohoku University Graduate School of Engineering

Disaster Control Research Center (DCRC)" was founded. It pursues research and education aimed at estimating damage caused by huge earthquakes and tsunamis in urban and rural areas, and preventing or mitigating the disasters.

The pillars of the DCRC's research are comprehensive disaster measures and technological development in the Pacific Rim. Their representative work is a real-time tsunami monitoring system. They are also conducting studies to make real-time forecasting techniques

more precise and speedier by linking the tsunami observation networks now being developed, and uniting them with a numeric model for simulation.

Moreover, DCRC conducts various activities in support of natural disaster prevention and mitigation. It promotes international research and educational activities, such as positive exchanges with researchers around the world and recruitment of international students.

Prof. Fumihiko Imamura, the Director of DCRC says, "The Great East Japan Earthquake occurred right at the central location of our activities. Although it will take more time to summarize the disaster, and we need more detailed research, we

The Jogan Earthquake occurred in 869. Its epicenter was off the Sanriku and Sendai coasts (presumed M8.3). This is a simulation model (CG) of the subsequent tsunami that hit the Sendai plain. It shows that see water entered from the coastline up to about 4 km inland.

Director, Disaster Control Research Center Graduate School of Engineering, Professor, Tsunami Engineering

Fumihiko Imamura

Born in Yamanashi Prefecture in 1961, Graduated from the doctoral course of the Department of Civil Engineering, School of Engineering, Tohoku University. In 1989 awarded a Dr. Engineering. Worked as Research Associate at the Faculty of Engineering and then Associate Professor (former Assistant Professor) at the School of Engineering. Tohoku University. Has been in his current position since 2000.

http://www.tsunami.civil.tohoku.ac.jp/hokusai3/J/index.html

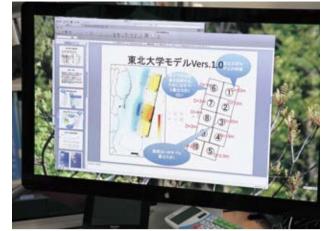
DCRC helps local residents to take measures to mitigate tsunami diracters. Its epicenter was Challenge Disaster Prevention Seminar, they created a hazard map with the residents, designating buildings for tsunami emergency evacuation.

have two points."

First: "For more than 10 years we have continually researched and investigated the millennial tsunami, which occurs on a cycle of about 1,000 years, like the Great East Japan Earthquake tsunami that occurred in 2011 and the Jogan Earthquake tsunami that occurred in 869. Last year we started to assess and investigate the research results related to disaster prevention. Then the great earthquake occurred. Therefore, the results of our research could not be utilized fully."

Second: "We created a simulation model of a tsunami occurring in the Sendai plain based on the data obtained from research on the Jogan tsunami, and held a lecture meeting for the residents of Wakabayashi Ward, which was stricken by the recent tsunami, in October last year. The meeting was crowded with about 300 people at the city. Almost all the people who attended the lecture meeting took refuge in safe areas during the tsunami. I felt this clearly indicates that if prepared and provided with the right information on a disaster, more human lives will be saved."

Prof. Imamura says, "Although last year I strived to inform people about tsunami through the lecture at the APEC Japan 2010 Senior Officials' Meeting that was



The massive earthquake and tsunami hit many cities in the Tohoku region, and was an incomparable world event. The research results obtained from this unprecedented disaster will become the compare research of all homes being the compared to the compared

held in Sendai, and through the mass media, we had many tsunami victims."

In the 2004 earthquake off Sumatra (M9.1), there were as many as 220,000 victims, while in the Great East Japan Earthquake (M9.0) there were about 20,000 victims.

Prof. Imamura pointed out that Japan has robust alarm systems, and has developed hardened infrastructure, such as sea wall embankments, breakwaters, and evacuation buildings. Furthermore in Japan people prepare for disasters in everyday life by making hazard maps and conducting fire drills. This led to fewer victims. Prof. Imamura has renewed his resolve to further enhance the function of DCRC in order to achieve zero victims.



of Washington) visited Sendai, he presented Prof. lammura a tsunami sediment layer specimen from near the Seattle coast as a souvenir. It triggerd tsunami sediment layer investigations in the Sendai plain.



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Lifelines in the affected areas were stopped immediately after the Great East Japan Earthquake. The local core hospitals, their food and medical supplies for the patients and staff nearly exhausted, were faced with a crisis in their medical systems. The Tohoku University Hospital perceived these conditions in the local core hospitals, and prepared a system to accept all criticalcondtion patients from them. The University Hospital arranged buses to these hospitals and periodically sent replacement medical staff. Moreover, it worked with medical staff all over the country to provide support goods, such as food and medical supplies, which were brought to the suffering hospitals by bus.

"Facing this unprecedented disaster, we gave our role as a university hospital the



rof, Satomi, Director of the University Hospital, led the isaster conference e continuously plained the role mission of the versity Hospital, ch oversaw medical vices in the entire cken area.

Vice President, Director of the Tohoku University Hospital, Director of the Innovation of New Biomedical Engineering Center Susumu Satomi

Born in Kagnshima Prefecture in 1948. Graduated from the School of Medicine. Tohoku University, M. D. Worked as a Lecturer at the Second Department of Surgery and then as Professor at the Second Department of Surgery since 1995. Appointed as Professor of the Division of Advanced Surgical Science and Technology, Graduate School of Medicine, Tohoku University, Director of Tohoku University Hospital in 2004, Vice President of Tohoku University in 2005, Director of the Innovation of the New Biomedical Engineering Center in 2008, and President of the Japan Surgical Society in 2008. Tohoku University Hospital http://www.hosp.tohoku.ac.jp/ Innovation of New Biomedical Engineering Center

http://www.trc.med.tohoku.ac.ip/ Division of Organ Transplantation, Reconstruction & Endoscopic Surgery, Department of Surgery, Tohoku University Hospital http://www.hosp.tohoku.ac.jp/sinryou/s13 isyoku sai nai.html

highest priority, and acted together. I think that we were able to show through our efforts that a university hospital is in an optimal position to act as the last resort for achieving normalization of regional medical systems," says Prof. Susumu Satomi. Director of Tohoku University Hospital.

Many things were learned from this earthquake. Retrofitting the university hospital buildings with seismic dampers was effective from the viewpoint of medical system maintenance. Further, it was learned that it is important to review procedures for organizing a triage* system, and prepare a process for managing an emergency task force through everyday training.

The hospital must be able to protect the lives of its more than 1,000 inpatients and 2,500 staff. Therefore it needs to stockpile at least

> a one-week supply of food and about a two-weeks supply of medicine, and strengthen its offgrid power system, etc.

he university hospital personnel divided their actions in response to the earthquake into four steps. The first step, on the day of the earthquake, was to ensure the safety of the inpatients and staff and establish an emergency triage system. The second step, up to oneweek after the earthquake, was to restore the hospital's functions. upport medical institutions around Sendai City, and continue providing age. The third step, two to three weeks later, was to enhance upport for medical institutions in and outside Miyagi Prefecture. The urth step, from three weeks and onward after the disaster, was to elop a long-term medical care system for the shelters, and provide onal normalization for the suffering hospitals



Mivagi refecture. public spitals (588 eds) suffered atastrophic mage and 32 clinics were ully destroyed.



In order to dispatch medical teams and supply necessary goods to the areas where the damage was serious in Miyagi Prefecture the university prepared and maintained its own means of transportation. The photograph shows a departing university bus.

Prof. Hitoshi Mimura is currently studying radioactive waste disposal, ion exchange selectivity of zeolite, etc. In 1986 at a seminar in his loboratory, he reported on an adsorption experiment in which he used various types of zeolite, clay, titanic acid, etc. in order to separate cesium contained in sea water. This report, however, was not published.

25 years after that, the Fukushima Daiichi Nuclear Power Plant accident occurred due to the Great East Japan Earthquake, It generated a highly contaminated mixture of water and sea water in the nuclear reactor, turbine building, etc. Processing this contaminated water, which is expected to amount to not less than 200,000t, has become a hindrance to restoration work.

Prof. Mimura promptly began working together with the Japan Atomic Energy Agency (JAEA) and a team of volunteers* in order to determine whether the experimental data of 25 years ago was correct. Experiments for over 600 adsorbents were carried out with regards to separation and decontamination of cesium, strontium, and iodine. The experiments showed almost the same results as the 1986 experiment's data. The data was released on the Atomic Energy Society of Japan (AESJ) website.

"Zeolite was used to process waste in the 1979 Three Mile Island accident. It is produced domestically in large quantities and is inexpensive. Sendai prides itself on its Zeolite from Ayashi, which is some of the best in the world. I am sure that situational convergence is by no means impossible," says Prof. Mimura.



itself on its Omori Kami-Avashi zeolite, which has very high purity, and is some of the best quality zeolite in the world. The photograph shows zeolite ore from Avashi





Uranium research elucidated the present principles of nuclear fission and in addition, enabled us to trace the origins of the elements. Prof. Mimura tells students about the importance of the discovery of uranium, which made a great contribution to the progress and development of modern science, at a lecture.



Professor, Nuclear Energy Flow Environmental Engineering, Safety Engineering of Nuclear Systems, Quantum Science and Energy Engineering, Graduate School of Engineering

Hitoshi Mimura

Born in Fukushima Prefecture in 1950. Graduated from the doctoral course of the Department of Nuclear Engineering, School of Engineering, Tohoku University, Ph.D. in Engineering Worked as Research Associate at the Research Institute of Mineral Dressing and Metallurgy, Tohoku University, and then Associate Professor (former Assistant Professor) at the Institute of Multidisciplinary Research for Advanced Materials, Tohoku University. Has been in his current position since 2003.

http://michiru.gse.tohoku.ac.jp/



^{* --} Triage: An approach to give the priority for medical treatment and conveyance to sick and injured people in mass casualty situations.

^{* --} Japan Atomic Energy Agency, Hokkaido University, Tohoku University, Tokyo Institute of Technology, Kyoto University, Kyushu University

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In Japan, there is a network of 1300 GPS observation points called GEONET, established by the Geographical Survey Institute (GSI). It allows crustal deformation on the land's surface to be detected with high accuracy. On the other hand, the depth of the ocean makes it quite difficult to detect crustal deformation on the seafloor. The Research Center for the Prediction of Earthquakes and Volcanic Eruptions (RCPEV), Tohoku University, has installed unique monitoring equipment, which they developed and produced independently, on the seafloor around the source area of the expected Miyagi-oki earthquake, 7 years ago.

An uplift of 5m and a horizontal displacement of up to 31m, due to the 2011 magnitude 9.0 Great East Japan Earthquake, were measured with this observation system. Analyzing this data, they estimated that the slip amount on the plate boundary was more than 60-70m. They were the first to succeed in detecting such a large slippage, not only in Japan, but around the world as well.

Coseismic-2011/03/11

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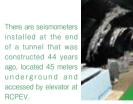
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39"

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Slip distribution of the 2011 Great East Japan Earthquake. The source region of this earthquake extends 200km in an east-west direction and 450km in a north-south direction. There is a large slip area located far off the Miyagi coast, just to the west of the Japan





Miyagi-oki earthquakes.

Because it has been only 100 years since seismic

observation using seismometers started, there was

not enough data to anticipate the occurrence of

the 2011 earthquake. However, through recent

advances in observation techniques, researchers

have revealed that there is a strong coupling near

the focal area of this earthquake, and the analysis

of tsunami deposit on the Pacific Coast of NE

Japan indicates that a great tsunami occurred

there due to the Jogan earthquake, which had

an estimated magnitude of 8.3 or larger, in 869.

The 2011 earthquake occurred just after the

Headquarters for Earthquake Research Promotion

undertook a review of long-term predictions for

Full-scale data analysis of the Great East Japan

earthquake has only just begun. Seismologists

think "it is important to derive a generation

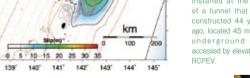
mechanism (cause) of the earthquake that can

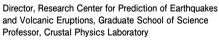
explain the observed data (result)." Prof. Norihito

Umino told us that it's essential to make steady

efforts in collecting and analyzing data.







Norihito Umino

Born in Yamanashi Prefecture in 1948.

Dr. Science Graduated from the Department of Geophysics. Faculty of Science Tohoku. University, Worked as Assistant and then Assistant Professor at the Denartment of Geophysics Faculty of Science, Tohoku University, Has been in his current position since 2003, Appointed as Director, Research Center for Prediction of Earthquakes and Volcanic Eruptions in 2008.

http://www.aob.geophys.tohoku.ac.ip/

used for ocean oottom observations re handmade. This quipment is used or observation of ocean-bottom crustal deformations and was developed at he center. Currently. identical equipment is set up at four points off the coast of Miyagi

All the equipment

When investigating the history of Japan and its regional communities, old documents made by village officials and ordinary people are absolutely necessary. Such historic documents have been passed down from generation to generation. Many such documents have not been made public.

These documents are clues to the history of local communities, but many were damaged by the shaking and tsunami caused by the Great East Japan Earthquake. Damaged documents might be disposed of together

Prof. Arata Hirakawa at the Center for Northeast Asian Studies, and his team have worked energetically and without rest to rescue as many damaged old documents as possible since just after the great earthquake. In some cases they had to enter old storehouses that were about to collapse to rescue old documents.*

The successive earthquakes in the north part of Miyagi Prefecture in 2003 occasioned the beginning of the Center for Northeast Asian Studies program to rescue historic materials that were about to be lost due to disasters.

Prof. Hirakawa and his team visited old families' houses to allow them to record old documents. "Natural disasters usually affect a wide area, so the number of people and budget set a limit on our capacity. That taught us a lesson, and since then we have acquired the know-how to record large quantities of old documents in a short time. This is called the Miyagi System. We have provided classes to teach that know-how to research institutions across the country," says Prof. Hirakawa.

After the Great East Japan Earthquake, which caused extensive damage in an enormous area, a great many damaged documents were rescued and recorded. This was possible because they had accumulated the know-how to rescue such documents over many years.

> Of the 15 old family homes on the Sanriku coast hose documents had been recorded in the form of digital images, 13 were carried away by the tsunami.



cuments have

een compiled to a manual and



* Helmets are lifeprotecting partners for them because にフジア研究センター they may have to go into half-collapsed storehouses to rescue old documents.



Old documents that have become wet, e.g., due to tsunami go moldy soon. The center arranged an industrial refrigerator to store them; however, its capacity was insufficient. So they asked the Nara National Research Institute for Cultural Properties for help preserving the documents

Professor, Japanese and Korean Studies, Basic Studies, Center for Northeast Asian Studies

Arata Hirakawa

Born in Fukuoka Prefecture in1950. Ph.D. (Literature). Graduated from the Master course of the Graduate School of Arts and Letters, Tohoku University. Worked as Assistant at the Graduate School of Arts and Letters, Tohoku University, in 1981, then as Assistant Professor at Miyagi Gakuin Women's University, then as Assistant Professor of the College of General Education, Tohoku University, Has been in his current position since 1996. Appointed as an expert member of Cultural Properties, Expert Investigation Committee, Council for Cultural Affairs, Ministry of Education, Culture, Sports, Science and Technology in 2011.





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The Ministry of Agriculture, Forestry, and Fisheries estimated that the area of farmland that sustained damage, such as wash-out and flooding, from the tsunami created by the Great East Japan Earthquake, was 23,000ha for the entire stricken area. In particular, Miyagi Prefecture had the largest damaged area: 15,002ha. Most of the damage was concentrated in the Sendai plain. Prof. Masami Nanzyo began inspecting and

investigating the farmland damaged by the tsunami in southeastern Sendai on March 25. two weeks after the earthquake. He sampled the soil and analyzed it. In the said region, the tsunami went about 4km inland from the seashore. At the beginning, it was feared that topsoil had been eroded by the tsunami, that it would take much time and labor to restore the farmland. However at the point investigated,

near Arahama, the surface soil was apparently affected to a depth of about 2-3 cm from the top. The sediment was in the same range. Even at the deepest point, it was only 20cm. Regarding salt residue, although electrical conductivity of water in the sediment is almost comparable to sea water, at 4-9cm from the surface soil it decreased to 1/10th, and it turned out that the tsunami initially affected only the upper part of the surface soil.

Although tsunami damage to farmland from the Great East Japan Earthquake was serious and covered a wide area, as he looked at the investigation points he concluded that the surface soil can be restored.

"In order to explore a quick and suitable soil restoration technique, we will analyze the sampled soil and clarify the effects of the tsunami on surface soil," says Prof. Nanzyo.



Prof. Nanzyo has recently been focusing on the rice rhizosphere, and noted that rice stubble washed by tidal waves stood as it was on paddy fields before plowing, which means that "there are few washouts of surface soil." and "little ground cover was carried away by the tsunami.



This cross-sectional specimen of soil symbolizes the laboratory. "We can read various phenomena." about the land from this specimen," says Prof.



Professor, Soil Science, Plant Production Science, Biological

Masami Nanzvo

Born in Miyagi Prefecture in 1953. Graduated from the master's course of the Department of Agricultural Chemistry, Graduate School of Agricultural Science, Tohoku University, Ph.D. (Agriculture) Worked as Technical Official. The National Institute of Agricultural Sciences, the Senior Researcher, National Institute of Agro-Environmental Sciences, and Associate Professor. Faculty of Agriculture, Tohoku University, Has been in his current position since 2001, Since April 2010 Chairperson of the Japanese Society of Soil Science and Plant Nutrition.

Resource Sciences, Graduate School of Agricultural Science

http://www.agri.tohoku.ac.ip/soil/ipn/



Prof. Yutaka Nakai, Graduate School of Agricultural Science, is now proceeding with the "Rape Blossom Project for Reviving Farmland Damaged by Salt due to Tsunami." In this project, rape blossoms, which are resilient to salt damage, are cultivated with the aim of restoring farmland through farming. The Nanzyo Laboratory is involved in soil analysis for the project.

The Ministry of the Environment estimates that waste, such as disaster wastes, from the Great East Japan Earthquake totals 24,900,000t in all for Miyagi, Iwate, and Fukushima prefectures. Miyagi Prefecture had 16.000.000t, which is equivalent to the amount of waste the prefecture processes in 23 years. How should this vast quantity of debris be handled?

Prof. Toshiaki Yoshioka, who is mainly studying recycling chemistry for waste plastics, collected information on the stricken area as a member of the Taskforce on Disaster Waste Management and Reconstruction of the Japan Society of Material Cycles and Waste Management. He participated in creating a manual, titled "Waste Separation/Disposal Strategy" using

Sendai City as a model.

Japan has suffered from disasters many times, and a disposal method for the waste generated by disasters has always been an issue, but there was no systematized manual

"If waste is not processed properly, future generations will have to take up the slack. Moreover, it is necessary to process waste quickly so stricken areas can be restored. The manual provides a disposal method and procedure for processing waste properly in the case of a disaster or emergency. It will be useful for disasters that occur anywhere in the world," says Prof. Yoshioka.

This manual has been revised, and now Ver. 2, Rev. 3 is on the Japan Society of Material Cycles and Waste Management website.



It is essential for waste treatment organizations to construct systems, facilities, and equipment for appropriate disposal, and establish technologies for disposal of all waste safely and efficiently. A system has already been described in this manual. Next, research on processing technologies, which is Prof. Yoshioka's original research subject, should be given priority



About 70% of the waste generated this time was wood. It is already being utilized as a material for plywood, and as an energy source at paper mills and cement plants, Prof. Yoshioka says, "Waste treatment for this earthquake provides an opportunity to promote the spread and expansion of natural power sources, such as effective



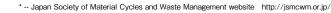
Professor. Recycling Chemistry, Sustainable Recycle Process. Environmental Studies, Graduate School of Environmental Studies

Born in Miyagi Prefecture in 1963. Dropped out of the doctoral program of the Department of Applied Chemistry, Ph.D. (Engineering), Worked as Assistant at the Department of Applied Chemistry, School of Engineering, Tohoku University Lecturer, Graduate School of Engineering, Assistant Professor, Research Center of Supercritical Fluid Technology, Graduate School of Engineering, Assistant Professor, Environment Conservation Center, Has been in his current position since 2005.









On-site Seminar on Disaster Waste from the Great East Japan Earthquake

sponsored by the Japan Society of Material Cycles and Waste Management



Supporting

restoration of regional health

and

S

anitation systems

During the Great East Japan Earthquake, people in the stricken area acted in an orderly manner. People around the world admired

Prof. Tsuneyuki Abe has been studying for vears how cosmetics, which aim to beautify the appearance, influence people's feelings. He took notice of people's actions and changes in their state of mind in the stricken area, and surveyed it from the perspective of beautifying behavior.

For example the survey examined whether there are any relationships between usual manner-consciousness and actions permissible in times of disaster. Then he tried to compare these relationships on an international scale.

This is unprecedented in past disaster surveys. Simultaneously, with the help of the participating disaster victims, he conducted fixed point observation, in which he asked the participants to continuously record changes in their actions and their state of mind during the recovery process.

"Now, the Tohoku University Disaster Control Research Center (DCRC) is proceeding to create a database of buildings damaged by the earthquakes and tsunamis. I expect that the disaster's whole picture will become clear by unifying this earthquake disaster database and the database of social phenomena. At the same time, I hope to elucidate social factors that reduce panic disorder during a disaster,

> and find clues to social behavioral patterns, which will lead to disaster prevention or mitigation," says Prof.



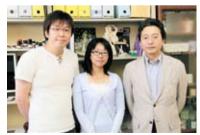
Prof. Abe held lecture meetings for volunteer disaster victim support staff to learn the basics, and proposed to aid the disaster victims in practical and emotional terms.

Professor, Psychology, Human Sciences, Graduate School of Arts and Letters

Tsuneyuki Abe

Born in Niigata Prefecture in 1961. Graduated from the doctoral course of the Department of Human Sciences, Graduate School of Arts and Letters, Tohoku University. Worked as Senior Researcher, Shiseido Institute of Beauty Sciences, Appointed as Assistant Professor and Associate Professor of the Psychology Course. Has been in his current position since 2010. The Editor-in-Chief of "Japanese Journal of Research on Emotions" (since 2010). http://www.sal.tohoku.ac.ip/psychology/index-i.html

http://www.sal.tohoku.ac.jp/staff/04030103 abe.html



From left: Mr. Akio Honda, Ms. Juthatip Wiwattanapantuwong, and Prof. Abe Mr. Honda, who has a Ph.D. in Literature, looked through all the articles of local newspapers immediately after the East Japan Earthquake, looked at keywords they used, and studied how they changed as time passed. Ms. Wiwattanapantuwong studied at a university in Thailand, and entered the Doctoral Program after graduating from the Master's Program. She studies the differences between Thailand and Japan regarding disaster prevention actions.

Immediately after the Great East Japan Earthquake, Prof. Kayoko Hirano participated in the Emergency Medical Care Support Dispatch Team, assisted the Division of Nursing at Tohoku University Hospital, and performed health consultation in surrounding shelters. all while working with the Division of Nursing, University Hospital. She also started a network called the "Regional Contribution Project" in order to share information and knowledge which are useful for supporting disaster victims from other universities/colleges and organizations.

"We did all that we could do on a patchwork basis. However, as time passed, we came to consider what regional contributions the university could make, and we changed the

direction of activity," Prof. Hirano recalls.

In this earthquake, the health and sanitation systems in particular were largely damaged in the areas hit by tsunami. The damage of Ishinomaki City was especially serious. Accordingly, an agreement was concluded with Ishinomaki to provide support to them in order to restore health and sanitation systems there over three years.

Moreover the Graduate School of Medicine established the "Center for Community Health" to help with activities for restoration of health and sanitation systems in each stricken area in Miyagi Prefecture. They will survey the needs of residents based on eight challenges* concerning regional health care, and from this extract

> relevant issues and subjects, then make proposals and advise. "Although I think that restoration of the public administration will not take much time, it will take a long time for local residents to return to their original lives. Resumption of activity at the Center for Community Health may also be a long way off," says Prof. Hirano.

> The Department of Nursing dispatched students from various universities and fields, not only than undergraduate/graduate students in the School of Medicine, to aid stricken areas within the prefecture. It also conducted medical support, health consultation in the shelters, door-to-door surveys on all houses (in







Prof. Hirono led preparaction of the

Response Manual for New Influenza

Viruses (FY 2009) and Violence

Prevention Manual (FY 2010), and distributed them to nurses and

As Manager of the Health Guidance Office at the Ministry of Health, Labour and Welfare since 1994, Prof. Hirono structured the "Nationwide Public Health Nurse Dispatch System," which works out issues that are impossible to solve through self-reliance, with neighborhood, and broad-based, public support. She also participated to create the "Health Public Nurse Action Manual at Disasters" together with concerned self-governing body and functional organizations

Professor, International Nursing Management. Health Development Nursing Science, Health Science, Graduate School of Medicine

Kayoko Hirano

Born in Kanagawa in 1948. Graduated from the doctoral course of Social Welfare Studies, Graduate School of Social Welfare Studies, Toyo University, Ph.D. (Social welfare study), Worked as Health Officer, Health Service Bureau, Ministry of Health and Welfare, Director of Public Health Nursing, The National Institute of Public Health. Has been in her current position since 2008.



^{* --} Fight challenges: Community survey. Health guidance. Infection prevention, Mental health, Maternal and child health. Exercise guidance. Nutritional guidance. Care prevention

Radically

changing

society through

enhanced

battery performance

Soon after the Great East Japan Earthquake occurred, Tohoku University, the Graduate School of Medicine and the University Hospital, organized a special infection control team (ICT) to protect local communities against infections and provide clinical management and control for infections at hospitals/clinics.

The Tohoku University ICT assessed the infection risks at stricken areas and shelters. created an infection control manual, and made efforts to manage influenza outbreaks at shelters. The ICT also assisted with treatment for patients with infectious diseases that had been carried from the stricken area to the University Hospital, and analyzed the characterization of such diseases. An influenza outbreak actually occurred at a shelter with some 1,000 evacuees around ten days after the earthquake. The ICT set up a fever outpatient section immediately, and gave instructions on using alcohol for hand hygiene to the children and adults. As a result, the outbreak was successfully controlled in one week.

Some people said that "it was a miracle" that very few outbreaks occurred after such a large scale disaster. However, in hindsight, Prof. Mitsuo Kaku says: "It was not a miracle."

When the 2009 H1N1 pandemic influenza occurred, the Medical Association, core hospitals and Tohoku University cooperated and coordinated with one another to provide medical services in Sendai. This was called the 'Sendai system,' which in turn spread across the country. On March 18, a week after the earthquake, Prof. Kaku and his team prepared 8 fundamental rules to prevent communicable diseases and posted them on their homepage. They also distributed these to news media for broadcast.

The background of this was that those who engaged in medical services in Miyagi Prefecture had had meetings and worked to cooperate and coordinate with one another because of the "Tohoku Infection Control Network" which has covered the entire Tohoku area since its establishment in 1999.

WHO proposed th Infection Prevention Control Network. The team. headed by Prof. Kaku, was invited to participate i that network From left: Dr. Michael Bell from US CDC (Centers for Disease Control and Prevention) Dr. Carmen Lucia from WHO's infectio control team, and Prof. Kakı





A picture of doctors working or infection control and prevention in a shelter

egionella infection has been noted as a typical infectious ase after disasters such as earthquakes or tsunami. A case of Legionella pneumonia as confirmed here the first time in the

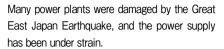
Professor, Infection Control and Laboratory Diagnostics, Internal Medicine, Medical Sciences, School of Medicine



Born in 1953 in Oita Prefecture, M. D. Graduated from the Nagasaki University Graduate School of Medicine, Worked as Lecturer at the Department of Clinical Laboratory of Nagasaki University Hospital, Senior Associate Professor at the Department of Microbiology of St. Marianna University School of Medicine, Has been in his current position since 1999. http://www.tohoku-icnet.ac

A poster showing the "8 Rules for Preventing Communicable Diseases" that was distributed to medical associations and reported by the news media after the Great Earthquake.





If wasted energy can be recovered in the form of electricity and stored in a battery for repeated use, as in a hybrid vehicle, the amount of energy used can be dramatically decreased.

The key to that technological innovation is further improvement in the performance of batteries. So says Professor Junichi Kawamura, who researches materials for lithium batteries and fuel cells.

His laboratory successfully developed an allsolid-state lithium-ion battery that is expected to be the battery of the future. This battery has a long life with no danger of leakage since it has no electrolytic solution in it.

Furthermore, as it can be made thin and has a high energy density, it is expected to be applied in various devices/apparatuses/machines.

In addition, a technique for diagnosing battery

degradation was developed. If the amount of energy consumed in the process of battery production is not reduced, or if battery life is not extended, total energy usage cannot be

"In the process of researching batteries, various instruments were used to diagnose their degradation. We examined the internal structure of batteries with MRI for the first time. We also developed a diagnostic method for detecting the ultrasonic waves emitted by a battery. I hope that such diagnostic techniques will help advance our research for making battery life longer, and developing enhanced battery performance," says Prof. Kawamura.



An all-solid-state battery wil applicable to a wide range of such as on-chip batteries in ICs or in batteries in ID cards. The amou power used in such batteries is extre small, so it is possible to generate pow from captured radio waves passing through our living spaces (ene harvesting), and store that power



A diagnostic technique using the "Battery Doctors" that Prof. Kawamura. proposed makes good use of thermography (temperature measurement). imaging (X-ray and MRI), AE measuring devices (stethoscope), and so on. The picture shows an MRI image being taken

kinetic energy of a vehicle derived from the burning of gasoline nanges into potential energy when the vehicle runs up a slope, and nto heat energy when the brakes are applied. Such potential energy and inetic energy are recovered by a regenerative brake that converts them electricity. This is the principle of a hybrid vehicle that recycles energy.



mainly consists of physics students from the School of Science, Until now batteries have been subject for chemists, b now they are also a subje



Director, Institute for Multidisciplinary Research for Advanced Materials (IMRAM) Professor, Solid-State Ion Physics, Research Center for Sustainable Materials Engineering

Iunichi Kawamura

Born in Nagano Prefecture in 1953. Ph.D. (Science). Graduated from the master's course, Chemistry II, School of Science Hokkaido University Worked as Assistant and then Lecturer at Faculty of Science Hokkaido University, and then as Assistant Professor at Research Institute for Scientific Measurements Tohoku University, Has been in his current position since 2006, Appointed as Director, IMRAM, in 2010.

http://www.tagen.tohoku.ac.jp/labo/kawamura/index_j.html







In 2005, Tohoku University established its "Regional Innovation Research Center" for industrial promotion and economic development in the Tohoku region. It's two pillars are "surveying and researching regional communities" and "human resources development in regional communities."

Immediately after the Great East Japan Earthquake, the "Research Institute for Disaster Restoration and Reconstruction" was set up, headed by the university president. The organization launched five prioritized projects with the idea of contributing to the restoration/reconstruction effort and forming integrated research and development hub for disaster recovery. One of its projects is regional industrial promotion, which was started by reorienting the existing operations of the Regional Innovation Research Center towards disaster recovery.

The first pillar "Surveying and researching regional communities" was changed to "surveying and researching the reconstruction of regional industries" bringing togeter





In order to work toward regional reconstruction and grapple with the issues that this involves, it is necessary to collaborate with other universities and experts from private enterprises. Under the circumstances, the Regional Innovation Research Center is committed to do whatever is required.



Masahiko Fujimoto

Born in Hokkaido in 1959. Graduated from the Faculty of Education and the doctoral course of the Graduate School of Economics and Management, Tohoku University. Ph.D. (Economics). Worked at Recruit Co., Ltd. and then worked as Associate Professor at Graduate School of Economics and Management, Tohoku University. Has been in his current position since 2007.

http://www.econ.tohoku.ac.jp/~fujimoto/index.html

researchers as well as specialists gathered from industry, academia and government. They are conducting surveys and research and making policy proposals relating to the region's reconstruction while participating in themespecific working groups. With regards to the other pillar, "human resources development in regional communities," a "regional innovator training school" is being prepared to train producers who will play a leading role in reconstructing regional industries.

"The Great East Japan Earthquake destroyed everything from infrastructure to industries and residents living in the many stricken areas. To revitalize these areas, it is necessary to bring together experts from a variety of sectors and come up with ideas. However, the goal is not just to return to the same situation as before the disaster. It is necessary to improve the regional industry and economy of the pre-disaster days. In addition, human resources capable of producing innovations are indispensable to continued regional development.

Our center is willing to become a hub for transmitting the results obtained through these activities and put them into practice," says Prof. Masahiko Fujimoto.

The theme-specific working groups have 58 participants (as of August, 2011) from eight universities (Tohoku University, Tohoku Gakuin University, Miyagi University, Ishinomaki Senshu University, Miyagi Gakuin Women's University, Fukushima University, Aomori Chuo Gakuin University and the University of Tokyo) as well as public offices/economic organizations and private companies. The participants are conducting research based on their specific themes. The scale of this cross-university collaboration is very large.





The "Research Institute for Disaster Restoration and Reconstruction" was established as a core organization in the area affected by the Great East Japan Earthquake. It aims to strategically and systematically promote understanding, research, education, social contribution and other issues, which will lead the recovery and regional reconstruction of the disaster-stricken areas.

Award Winners 2010

(August 2010-July 2011)

Medal with Purple Ribbon Autumn 2010

Awarded in November 2010



Graduate School of Science Prof. Eiji Ohtani

Elucidating the structure and evolution of planets in high-pressure, high-temperature experiments

In the field of earth and planetary material sciences, Prof. Eiji Ohtani revealed the melting phenomenon of earth and planetary materials, their phase transitions and crystal and liquid properties at high pressure and temperature using high-pressure, high-temperature experiments. In addition, by applying these results, he elucidated the formation process of the Earth, its primordial terrestrial magma ocean, the generation of magma and the evolution of the Earth's core.

He took up a position as a leader of a COE program, "Global Education and Research Center for Earth and Planetary Dynamics." He contributed significantly to fostering young researchers in this field.

Medal with Purple Ribbon Spring 2011

Awarded in April 2011

Graduate School of Science Prof. Masahiro Hirama

Contributing to the total synthesis of biologically active natural products

Prof. Masahiro Hirama focused his research on the total synthesis of biologically active natural products and made outstanding contributions to natural product chemistry. Based on natural product chemistry and organic synthesis, he developed interdisciplinary studies, and collaborated with researchers in multidisciplinary fields of science such as physical chemistry, pharmacology, physiology, and medicine. In particular, total synthesis of ciguatoxin, a causative toxin of ciguatera seafood poisoning, has been recognized worldwide as a landmark of the art of organic synthesis. His research had a great impact on academia and society.



TOPLICS

Academic paper citation ranking 3rd worldwide in the field of "Material Sciences"

Thomson Reuters, which is the world's leading source of intelligent information for specialists, released the Japanese research institution rankings based on trends in citations of published papers. Continuing from last year, Tohoku University was ranked 3rd worldwide (1st in Japan) in "Materials Science," 10th worldwide (2nd in Japan) in "Physics," and was also ranked highly in other fields. From this data, it is apparent that the university is receiving attention as a research institution for achieving an outstandingly high level of accomplishments.

3rd in the world (1st in Japan) Materials Science

10th in the world (2nd in Japan) Physics

20th in the world (6th in Japan) Chemistry

89th in the world (4th in Japan) Pharmacology/Toxicology

107th in the world (9th in Japan) Biology/Biochemistry

131th in the world (8th in Japan) Immunology

Duration of citation analysis: January 1, 2001 - April 30, 2011 (10 years)



Plasma Prize from the American Vacuum Society (AVS)

Awarded in October 2010

Institute of Fluid Science Prof. Seiji Samukawa

Pioneering achievements in "super-low-damage etching processes"

The Plasma Prize is awarded to researchers for their outstanding contributions and achievements in the field of plasma science and technology. This is the 11th awarding of this prize, and Prof. Samukawa is the second Japanese recipient. Prof. Samukawa has been conducting research on pulse-time-modulation plasma, neutral beams, etc. He was highly praised by the American Vacuum Society for his creative research activities and great contributions to the industry over the last 20 years.

The Meritorious Manuscript Award from the American Association of Pharmaceutical Scientists (AAPS)

Awarded in November 2010



Research group led by Prof. $Tetsuya\ Terasaki$ at Graduate School of Pharmaceutical Sciences

Developing a new "protein quantification method"

A research group led by Prof. Tetsuya Terasaki and Associate Prof. Sumio Ohtsuki received the Pharmaceutical Research Meritorious Manuscript Award from the American Association of Pharmaceutical Scientists (AAPS). The award was given to the best paper for high scientific impact among 285 manuscripts published in Pharmaceutical Research in 2008. High praise was given to their paper titled "Quantitative atlas of membrane transporter proteins: Development and application of a highly sensitive simultaneous LC/MS/MS method combined with novel in-silico peptide selection criteria."

The 51st Toray Science and Technology Prize

Awarded in February 2011

Graduate School of Medicine Prof. Masayuki Yamamoto

Clarification of the molecular mechanism of environmental stress response in the body

The Toray Science and Technology Prize is awarded to researchers for their outstanding achievements in science and technology. Prof. Masayuki Yamamoto received the prize. He was highly praised for his achievements on "Clarification of the Molecular Mechanism of Environmental Stress Response in the Body" and his year-long research efforts. He developed Nrf2 knockout mice that are known as a Japanese bio-resource and are used more than any other in the world. Nrf2 knockout mice are expected to significantly contribute to the development of interdisciplinary research that connects biomedicine, pharmacy and environmental science.



William J. Gies Award from the International Association for Dental Research (IADR)

Awarded in March 2011

Graduate School of Biomedical Engineering Prof. Tetsuya Kodama

Graduate School of Dentistry Senior Assistant Prof. Mirei Chiba and their three coworkers

Successful in the delivery of luciferase and EGFP genes into rat periodontal tissue

A research group led by Prof. Tetsuya Kodama at the Graduate School of Biomedical Engineering received the 2011 William J. Gies Award for the best paper. This prize is given to the author of the most outstanding paper of the year among those published in the Journal of Dental Research, the most authoritative journal in its field. The award ceremony was held during the 89th IADR/AADR General Session & Exhibition in San Diego, California and Senior Assistant Prof. Mirei Chiba, one of his coworkers, participated in the ceremony.



From left: Dr. Maria Fidela de Lima Navarro (IADR President), Mirei Chiba (Senior Assistant Prof., Graduate School of Dentistry) and Dr. David T. Wong.

Striving to return excellent research results to society Environment, organization and management for an intelligent

Graduate School of Environmental Studies The Ministry of the Environment's Eco House Project

The Ministry of the Environment's Eco House Project is an industry-academia-government project that targets a $10\% \text{ CO}_2$ reduction by recovering unused subtle energy and storing it in low voltage lithium-ion rechargeable batteries to be re-used as household. At the Eco-Lab (a wooden school building used for on-site application of natural energy research results,) technological developments and demonstrations are being conducted on battery technology, energy recovery/power generating technology, AC/DC power control technology, DC home appliances, etc.

The Graduate Course in Strategic Environmental Management and Sustainable Technology Solutions (SEMSAT) has been training

"immediate and practical leaders with environmental management skills." The Eco House Project for Technological Development on Energy

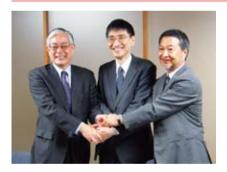
The Eco House Project for Technological Development on Energy Conservation relating to Subtle Energy Storage was based on concepts created by the teachers and students at SEMSaT. It was adopted as

a Ministry of the Environment program for its Anti-Global Warming Energy Conservation Technology Development project." This led to the regular launching of Eco House Projects by the Ministry of the Environment.





Rio Tinto and Komatsu to offer scholarships to disaster-stricken students



Rio Tinto Japan Ltd., a Japanese subsidiary of world leading mining and resources company Rio Tinto, and Komatsu Ltd., a global manufacturer of construction equipment and industrial machinery, have agreed to jointly offer a scholarship (the Rio Tinto-Komatsu Scholarship) to Tohoku University. Rio Tinto previously expressed its intention to assist students who suffered financially from the Great East Japan Earthquake. A total amount of JPY 400 million (continuous assistance for 10 years) will be provided, targeting undergraduate and graduate students enrolled in Tohoku University (including future students who are currently enrolled in high school).

Global Centers of Excellence Program (Global COE Program)

The Global COE Program is an initiative by the Ministry of Education, Culture, Sports, Science and Technology that supports excellence centers to promote internationally competitive universities with the intention of developing creative world leaders. During the selection process, COE candidates are reviewed in terms of their potential for growth as education and research centers. They must function to develop human resources, and an original, epoch-making research base is a prerequisite. At Tohoku University 12 programs in eight research fields were designated as COEs in FY 2007 and 2008.

- Basic & Translational Research Center for Global Brain Science
- Weaving Science Web beyond Particle-Matter Hierarchy
- International Center of Research & Education for Molecular Complex Chemistry
- Global Education and Research Center for Earth and Planetary Dynamics
- Materials Integration International Center of Education and Research
- World Center of Education and Research for Trans-disciplinary Flow Dynamics
- Center of Education and Research for Information Electronics Systems
- Center for the Study of Social Stratification and Inequality
- Global Nano-Biomedical Engineering Education and Research Network Center
- Gender Equality and Multicultural Conviviality in the Age of Globalization
- Global COE for Conquest of Signal Transduction Diseases with "Network Medicine"
- Center for Ecosystem Management Adapting to Global Change

Educational Excellence Student Activities



Effective education support produces great results Education and research support programs suited to the needs of the times

University Contribution Award in Education

This award celebrates university staff members who have enriched the university's common subjects program by making great achievements in educational methods, study support and creative approaches for students toward the betterment of education.

Associate Professor (Graduate School of Science) Satoru Shimizu

Designed his lectures to be objective and assigned exercises in every class to reinforce student understanding.



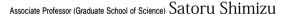
$\begin{array}{lll} {\tt Associate\ Professor\ (Graduate\ School\ of\ Medicine)}} \\ {\tt Akira\ Tamagawa} \end{array}$

Made efforts over the years to teach students the principle of physical exertion based on exercise physiology by preparing creative lectures.



Presidential Prize for Educational Excellence

This award is presented to university staff members who have made great efforts and achieved outstanding educational excellence in such areas as classes, extracurricular activities and international exchange programs.



Highly praised by students for his "analysis" class in the General Education Course. He has made efforts to reinforce student understanding by assigning exercises in every class.

Professor (Graduate School of Agricultural Science) Eimei Sato

Published many textbooks and instruction manuals for experiments relating to animal technology and prepared lectures based on them. His lectures were highly praised by students.

Professor (Graduate School of Information Sciences) Mitsuyuki Nakao

By utilizing the Cooperative Support Program for Asian IT Students Career Routes in Japan (ASIST) while putting his creative ideas into practice, he has greatly contributed to improving the internationalization of education that Tohoku University offers as well as to collaborative education between industry and academia.

Professor (Institute of Fluid Science) Toshiyuki Takagi Professor (Graduate School of Engineering) Goro Masuya

Significantly contributed to developing international educational exchange at Tohoku University by actively promoting the Academic Exchange Agreements with Overseas Countries initiative and implementing the Joint Education Program through their activities at the Strategic Office for International Exchanges subcommittee.

${\scriptsize \textbf{Professor}\,(\textbf{Graduate}\,\textbf{School}\,\textbf{of}\,\textbf{Science})}\,Masahiro\,\,Yamaguchi$

Professor (Graduate School of Science) Motoko Kotani

Made great contributions to improving internationalization in education at Tohoku University. Their activities include actively sending information about Tohoku University's education and research overseas through planning and implementation of the "Tohoku University Day" program and international public relations.

2010 Projects of Tohoku University adopted in "Support Program for Distinctive University Education" by the Ministry of Education, Culture, Sports, Science and Technology

http://www.tohoku.ac.jp/japanese/profile/about/08/about0803/

Improving Perinatal Care in the Medical Environment [Establishment of midwifery center, etc. inside the hospital]

Tohoku University Program of the Improvement of the Medical Environment for Perinatal

Measures (Hospital)

This program aims to ease the load of obstetricians by making an initial investment in establishing/enlarging the midwifery center at the hospital to improve the environment for midwife education and training.



Assistance staff will be employed to improve the working environment for doctors at the hospital

■ Tohoku University Hospital Work Improvement Program (Hospital)

This program aims to ease the workload of doctors and nurses by employing assistants who will help them with their medical clerical work, and improve role-sharing between related tasks.

University life enriches student developmet through studies and club activities

Campus life makes the most of our students' individuality

The First JSPS Ikushi Prize

In 2009, the Japan Society for the Promotion of Science (JSPS) received an endowment from Emperor on the 20th year of his reign. Amidst severe economic conditions in Japan, His Majesty desired to support and encourage young scientists who are working diligently to advance their studies and research. In deference to his desire, JSPS established the Ikushi Prize program. It functions to formally recognize outstanding doctoral students who are expected to contribute to Japan's future scientific advancement. Ken-ichi Uchida, a doctoral student in the Department of Physics, Graduate School of Science received the first Ikushi Prize.



His research theme is titled "Exploration of Fundamental Physics and Application Technology of Thermo-Spin Effects." The presentation ceremony was held in February and was attended by the Emperor and Empress.

Four individuals and one group from the Student Union awarded the 2010 Sendai City Sports Prize

The presentation ceremony for the Sendai City Sports Prize was held on February 7, 2011. This prize is given to individuals and groups that have made great achievements in the area of amateur sports.

Individual Prizes

| Glory Prize | Takahito Fujimoto Triathlon 2010 Japan Intercollegiate Triathlon Championship Kannonji Men category: 1st place

| **Encouragement Prize** | **Masashige Tomita** Triathlon 15th Japan College Triathlon Invitational Meet men's division: 1st place 2010 Japan Intercollegiate Duathlon Championship men's division: 2nd place

| Encouragement Prize | Tatsuya Sagara Triathlon 2010 Japan Intercollegiate Sprint Triathlon Championship Men category: 1st place

| Encouragement Prize | Yusuke Ohashi Orienteering 2009 Japan Intercollegiate Orienteering Championship Middle-distance category: 1st place

Team Prizes

| Glory prize(second consecutive year) |

Tohoku University Student Union Triathlon Club 2010 Japan Intercollegiate Triathlon Championship men's team division: 1st place 2010 Japan College Triathlon Invitational Meet men's team division: 3rd place



The 49th Seven University Athletic Competition

The Seven University Athletic Competition is an annual athletic meet held by seven national universities: Hokkaido University, Tohoku University, the University of Tokyo, Nagoya University, Kyoto University, Osaka University, and Kyushu University. At the



49th Seven University Athletic Competition in 2010, the Men's Volleyball Club, was completely undefeated and the Women's Japanese Archery Club achieved the brilliant feat of winning the championship the fourth consecutive year since 2007.

Table Tennis Club

The Table Tennis Club was awarded the Kurokawa Cup, which is one of the Student Union Sports Association's four prizes. It is awarded to the group that obtains the best yearly results.



Triathlon Club

The Triathlon Club was awarded the Shimura Cup, which is another of the Student Union Sports Association's four prizes. It is awarded to the group that held the most enriching event during that year. Club member Takahito Fujimoto



received the individual Student Union Chairman's Prize, which is awarded to a student who is graduating that year and who has achieved the best results through their four years of university.

Orienteering Club

Club member Takamasa Kanno was sent to the 2011 Junior World Orienteering Championships (JWOC) as a representative of Japan. He achieved the feat of playing at JWOC.

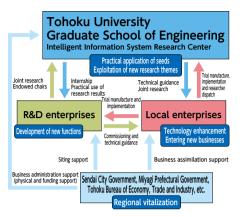


Industry-Academia Collaboration International Exchange Activities

Shaping the next-generation through world-leading research Industry-academia collaboration creating a sustainable future

Intelligent Information System Research Center forms hub for industry-academia-government collaboration Revitalizing next-generation vihicle research and development

Tohoku University established the Intelligent Information System Research Center (IIS) at the Graduate School of Engineering as a hub for industry-academia-government collaboration. The Graduate School of Engineering, Research Institute of Electrical Communication and Graduate School of Information Sciences are promoting collaboration at the IIS. About 80 laboratories relating to the fields of electricity, communication and mechanical engineering are participating in its activities. Using their technological resources, IIS supports industry and academia via collaborative research and development while working together with local enterprises on next-generation information communication, materials, electronics, intelligent computing, electric energy systems, vehicle/robot application systems, medical/bio application systems, etc.



Industry-Academia-Government Collaboration Promotion Seminar Envisages the Future of the Automotive Industry/Next-generation Moving Body Systems in Tohoku



As one of its Priority Support Programs, Tohoku University adopted the Demonstration Research Center for Environment and Safety Improvement Program on November 17, 2010. This project is part of the "Next-generation Moving Body Systems Study Group." This Priority Support Program aims to establish creative research centers, set up bases for sustainable development of the university, and give considerable support to research projects which are innovative and will contribute to solving issues concerning policy-making and society. The seminar, held in May, has led to the further strengthening of industry-academia-government collaborative

activities. It shows the possibility of developing products on a commercial basis jointly with automotive companies in Tohoku.

Opening Ceremony for Tohoku University Innovation of New Biomedical Engineering Center

In February 2008, the Innovation of New Biomedical Engineering Center (INBEC) was launched as an independent organization under Tohoku University to provide a practical place to conduct "Translational Research" for innovative next-generation medical care. In April 2010, participating researchers moved into the facility laboratories and began their research



after repairs were made to the former west ward building. As part of the opening celebration, a facility tour and symposium, "TR Strategy commenced by Tohoku University," were held on July 20th, 2010.



Opening of Hands-on Access Fabrication Facility for MEMS prototyping

On November 1, 2010, the Micro System Integration Center started a regular rental service for semiconductor and Micro Electro Mechanical Systems (MEMS) prototyping equipment.

Agreement on the KC Miyagi Promotion Network with Miyagi Prefecture concluded

On January 26, 2010, Tohoku University concluded the Mutual Cooperation Agreement on Support for Sophisticated Core Technologies with Miyagi Prefecture. This agreement will actively contribute to regional industrial promotion and has marks Tohoku University's entrance into the KC Miyagi Promotion Network.



Becoming a world-leading university through the construction of a global network Creating a world-class research and education center through international exchanges

2nd Japanese-Russian Forum of Rectors held in Moscow

The memorial opening ceremony of the Japanese Inter-University Russia Office was held at the same time

On September 11, 2010, the 2nd Japanese-Russian Forum of Rectors was held at the University Council Hall of Moscow State University. It was jointly organized by the Japanese executive committee, the Japan-Russia Society, the Russian Union of Rectors and Russian XXI Century Committee. There were 25 from Japan and 24 from Russian institutions in the forum. The theme, "Education and Science in Solving the Problems of Innovative Development – Japanese and Russian Experience," generated deep discussions about common issues of higher education.

At the opening ceremony, representatives from each organizer extended greetings. At the same time, the memorial opening ceremony of the Japanese Inter-University Russia Office took place at Moscow State University. The office is run jointly by Tohoku University and Moscow State University as part of the Global 30 project funded by the Japanese Ministry of Education, Culture, Sports, Science and Technology.



esident Inoue extends greetings at the opening ceremony as the



for the offic (left middle in President Inou and right middle Rector Sadovnich of Moscow Stat University)

A communiqué was adopted at the meeting. It referred to the implementation of joint research

projects, sharing of information and experience regarding innovation, promotion of staff and student exchanges, and resolved to hold subsequent meetings every one and a half years. The next forum is to be held in March 2012 in Japan.

"Tohoku University Day" held at Xiamen University, Tsinghua University and Chongging University

Tohoku University has been holding "Tohoku University Day" in China since December, 2009. The objectives are to promote understanding of Tohoku University to attract many more excellent international students and to increase educational and research exchange. In FY 2010, "Tohoku University Day" took place at Xiamen University (October 15, Xiamen), Tsinghua University (October 26, Beijing) and Chongqing University (November 5, Chongqing).

Tohoku University Day programs included addresses by the presidents of Tohoku University and the host university, an introduction of Tohoku University, presentations on its research, and explanations about the studying conditions at Tohoku University. In addition, booth consultations on studying at Tohoku University and a panel

display about Tohoku University were conducted. At Tsinghua University, three seminars (science, engineering and economics) were held instead of the presentations on research.





THE WARRENT

anel display at Xiamen University

Panel display and booth consultation at Chongging University

Address by President Inoue at Tsinghua University

Advancing the "Future Global Leadership" project

Tohoku University is advancing the "Project for Establishing Core Universities for Internationalization" started by the Ministry of Education, Culture, Sports, Science and Technology, under the title of "Future Global Leadership."

The university is increasing the number of courses in which students can obtain degrees by taking lectures and research guidance conducted in English. In 2010, three courses started at the graduate level, in addition to the International Program in Liberal Arts (IPLA), which is a program that provides the opportunity for overseas students to study Japan through a strong Liberal Arts curriculum taught in English.



Opening ceremony of the IPLA classe

New projects were also started in 2011. They include three courses at the

undergraduate level and a summer program in liberal arts. Under the "Future Global Leadership" program, a variety of plans are being implemented to train outstanding individuals who will take an active part in the international community.

| | |

Upholding the "Open-Door" Spirit and foreseeing the needs of the time Social contribution and gender equality in support of the aspiration for knowledge

Exhibition of a life-size model of the Hayabusa probe and 'Hayabusa - Back to Earth' lecture

On October 3-10, 2010, Tohoku University held an exhibition of a life-size model of the Japanese space probe Hayabusa as an opening event of the Tohoku University Extension Education and Research Public Relations Exhibition Space. This event was realized through the cooperation of the Japan Aerospace Exploration Agency (JAXA).

In December 2010, a lecture titled 'Hayabusa – Back to Earth' was held at Tohoku University's Centennial Hall (Kawauchi Hagi Hall). The lecture's organizers invited researchers, including Prof. Junichiro Kawaguchi of JAXA, Prof. Kazuya Yoshida of the Graduate School of Engineering and Associate Prof. Tomoki Nakamura of the Graduate School of Science from Tohoku University. Their research fields ranged from the initial development of Hayabusa to the analysis of collected samples, and each of them gave a lecture on his work.



Science Café in Akita City, and Kesennuma

Science Café was started with the intention of providing an opportunity for "Researchers and citizens to talk about science over a cup of coffee in an easy atmosphere." In August 2005, Tohoku University took a lead in starting Science Café as part of its social contribution activities. Regular meetings are held at Sendai Mediatheque (SMT). In 2010, Science Café was also held in Akita City, Akita Prefecture and in Kesennuma, Miyagi Prefecture.

Science Café in Akita

Looking at your brain activity with your own eyes

On October 17, 2010, Prof. Ryuta Kawashima of Institute of Development, Aging and Cancer held Science Café under the theme of "Looking at your brain activity with your own eyes" at the ALVE convention center in Akita City, Akita Prefecture. Participants measured regional cerebral blood flow using near-infrared spectroscopy, etc.



Science Café in Kesennuma

The surprising world of the sea urchin - the sea hedgehog

On November 16, 2010, Prof. Yukio Agatsuma of Graduate School of Agricultural Science held Science Café under the theme of "The surprising world of the sea urchin - the sea hedgehog" at the Community Exchange Center in Kesennuma City. His lecture focused on the features of the sea urchin that greatly change the biosociety of the seabeds along rocky coasts.



The 9th Tohoku University Gender Equality Symposium



On December 19, 2010, the 9th Tohoku University Gender Equality Symposium, titled "Gender Equality Policy and the Mission of the University," was held at Tohoku University's Extension Education and Research Building. Tohoku University awards the Sawayanagi Prize for the promotion of research and activities related to gender equality, as well as for active proposals or plans to realize a gender equal society. This year, the Sawayanagi Prize was awarded to Yohei Shigeki, who completed the doctoral course of the Graduate School of Law, Tohoku University (in the Research category), and to Hisaku Abe, Miwa Kuri and Yuko Murakami of the Graduate School of Science, Tohoku University (in the Project category). At the ceremony event, Ms. Turmunh Odontuya, who received the 2008 Sawayanagi Prize (Project category), gave a lecture on her achievements. There was also a lecture by Ms. Yumiko Ehara, vice-president of Tokyo Metropolitan University.

"Tohoku University Community" provides an opportunity for the members of the Shuyukai to act together

Tohoku University Shuyukai

The Tohoku University Shuyukai was inaugurated in 2007, the centenary year of the foundation of the university, as a cornerstone for building the university. The Shuyukai has a membership of around 140,000 graduates, about 18,000 current students and

about 6,000 university staff members, in addition to the families of current students. It aims at contribute to friendship and close communication between members while developing and strengthening a sense of solidarity with the "Tohoku University Community" among the members.

The Shuyukai holds events such as Home Coming Day and regional exchange meetings for its members to promote friendship and communication.



Tohoku University Home Coming Day

Home Coming Day was planned to provide an opportunity for graduates to meet their old friends and teachers, and current students. The intention of this event is to say "Welcome to your University." Since 2007, Home Coming Day has been held in October every year.

Tohoku University 103 Anniversary Home Coming Day

Date: Saturday, October 9, 2010

Venue: Centennial Hall (Kawauchi Hagi Hall) and Kawauchi Sub-Arena

- OShuyukai General Meeting
- OSendai Seminar "Spirit of Sendai -Location creates Values and Choices"
- OGet-together meeting between current students and graduates

Date: Sunday, October 10, 2010

Venue: Centennial Hall (Kawauchi Hagi Hall)

- OAutumn Culture Festival
- OLobby Performance
- OConcert for Tohoku University 103rd Anniversary Home Coming Day



Get-together meeting between current students and graduates

Regional exchange meetings

Since 2009, regional exchange meetings have been held targeting the graduates and parents of the current students. It aims at deepening friendship and communication by explaining the current status of Tohoku University and the achievements of its cutting-edge research activities.

Tohoku University Exchange Meeting in Kanto on the 103rd Anniversary (attended by about 300 participants)

Date and time: Sunday, August 22, 2010 from 15:00 to 19:30 Venue: Sapia Tower (5F)

Tohoku University Exchange Meeting in Kyushu on the 103rd Anniversary (attended by about 100 participants)

Date and time: Sunday, November 14, 2010 from 15:30 to 20:00 Venue: Fukuoka Recent Hotel (2F)

Tohoku University Exchange Meeting in Kansai on the 104th Anniversary (attended by about 150 participants)

Date and time: Saturday, February 19, 2011 from 14:00 to 18:30 Venue: Osaka International House







Get-together

Alumni Association secretaries elected by confidence vote

The secretaries of the alumni association of the Tohoku University Shuyukai are elected individually according to their year of graduation. They play a role in organizing the Alumni Association to foster a friendly environment in the Tohoku University Community and celebrate two-decade, three-decade etc. milestone. In 2010, the secretaries were elected by confidence vote from the 104th, and 100-102nd classes.



Alumni secretaries elected by confidence vote

29

Campus Environment **Campus Environment**

Seiryo Total Research

Sendai City Hall

Mitsukoshi

Jozeniidori

Hirosedori

Aobadori

Sendai

High Court

Nakanosehashi

Bridge Z

Nishi

Park

Ohashi

Bridge

Zuihoden Mausoleun

Miyagiken Technical

High School

Kita-rokubanchodor

Tohoku University Hospital

Amamiva

Campus

Aoba Ward Office

Miyagi Prefectural Office

Kita-Yohancho

Subway Sta

Fuiisaki JR

Aobadori Sta

Subway Sta

OSS30

Kahoku Shimpo

Sendai Sta

Miyagi University of

Education Attached

Junior High School

Each campus environment now being improved based on the master plan

Tohoku University new campus plan

Aobayama Campus

Center Square completed

The symbolic Central Building of the East Campus opened with the completion of the Center Square. A slope extends through the front garden to a building surrounded with greenery. The first floor is occupied by the soaring "Aoba-Shokudo" and "DOCK," which is available as rental space. The Lecture Hall (seating capacity of 378). Conference Hall (seating capacity of 200) and the International Exchange Room are on the second floor. The third floor houses the admission counter and meeting rooms. The environment of the building is well harmonized in terms of its interior and exterior appearances. Its surrounding landscape, which was realized through a collaboration of distinguished designers in specific fields, provides Aobayama with a new image.









Tohoku Institute of Technology

New Aobayama Campus

Infrastructuring is in progress

Along Tatsunokuchi-sawa, the main street of the New Aobayama Campus, the "Campus Mall" and the "Campus Commons" lawn area are under construction. The Campus Mall and Campus



Commons are designed to put greenery at the center of campus life. Work on infrastructure. such as electricity and water/sewer facilities. is progressing.

Bus service linking the Tohoku University campuses started

A free bus service, called "Campus Bus," for students and staff started operation in April 2010. It links the Tohoku University campuses scattered around the city in the Katahira, Amamiya, Seiryo, and Kawauchi areas, in addition to the student domitories in the Sanjo area. For more information, please refer to the Campus bus website: http://www.bureau.tohoku.ac.jp/keiyaku/ campusbus/campusbuse.html



Sendai Castle Site

Seiryo Campus

Smart Aging International Research Center completed

An international research center has been completed on the Seirvo Campus. It aims at developing cutting-edge technologies in the new field of integrated aging science.

Each floor of the center building is colored red-brown and has wide open spaces and lounges for people to

> meet. The front lawn area of the building is designed to be part of the campus street. The campus street links the School of Medicine, the Institute of Development, Aging and Cancer, the School of Dentistry and the University Hospital The street will function as an open space for people to talk surrounded by greenery.



Katahira Campus

Katahira Kitamon Commons Restaurant Building opened

Katahira Kitamon Commons is now under construction on the Katahira Campus. The hall is a complex with facilities to accommodate overseas researchers, a dormitory, a store, and a commons restaurant. The annexed Restaurant Building was opened ahead of the completion of the rest of the buildings.

The building houses the cafeteria-style "Sakura Kitchen" on the first floor, while on the second floor "Restaurant Hagi" offers a relaxing atmosphere.

The building is surrounded by cherry and other trees so people can enjoy meals in a calm and comfortable atmosphere. Next vear an accommodation annex next to the building will be completed.



ohoku Gakuin

University



Integrated Education & Research Building completed

A new research and education facility, the Integrated Education & Research Building, has been completed. It makes use of the exterior wall of the old architecture of the Department of Metallurgy.

School of Engineering from the former Tohoku Imperial University. The facility consists of an office building that utilizes the university's historical architecture, and the laboratory building, which has been newly extended. The two buildings are connected with an atrium style lobby. Construction to improve the Kitamon area is progressing in order to realize an "Open Campus" that fits in with the surroundings neighbors.

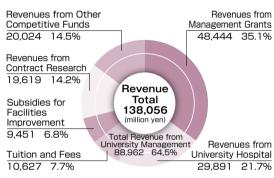


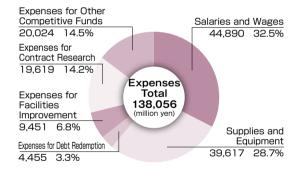
Data and Overview of Tohoku University

Number of Students (as of May 1, 2011)

	School enrollment	International students
Undergraduate students	10,967	135
Graduate students (Master's course, Professional Degree Program)	4,471	569
Graduate students (Doctoral Course)	2,787	540
Students at Affiliated Schools	39	0
Research students/Others	401	254
Total	18,665	1,498

FY2010 Financial Summary





Number of Faculty and Staff Members (as of May 1, 2011)

President		1
Board of Directors		7
Auditors		2
Faculty Members		2,969
Professors	852	
Associate Professors	716	_
Senior Assistant Professors	153	_
Assistant Professors	1,117	
Research Assistant	131	
Administrative/Technical staff/Others		2,971
Total		5,950

Agreements on Academic Exchange (as of May 2011)

Agreements on the University Level	29 countries/regions	155 institutions
Agreements on the Department Level	42 countries/regions	323 institutions

Overseas Office (as of May 2011)

Liaison offices	7 countries	9 centers
Overseas offices	3 countries	4 offices

Number of International Students (as of May 2011)

84 countries/regions	1.498

Number of Exchange Students Based on Academic Agreements (FY 2010)

To overseas	12 countries/regions	36
From overseas	12 countries	195

Endowed Chairs and Research Divisions (as of May 2011)

Endowed chairs	31
Endowed research divisions	12

Location of Tohoku University



Contacts

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General Affairs Section Tel. +81-22-795-6173 http://www.law.tohoku.ac.jp/

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General Affairs Section Tel. +81-22-215-2181 http://www.imr.tohoku.ac.jp/

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Institute of Fluid Science

General Affairs Section Tel. +81-22-217-5302 http://www.ifs.tohoku.ac.jp/

Research Institute of Electrical

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Institute of Multidisciplinary Research for Advanced Materials

Administrative Section Tel. +81-22-217-5204 http://www.tagen.tohoku.ac.jp/

Center for Northeast Asian Studies

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Research Center for Electron Photon Science

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The Center for Academic Resources and Archives

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International Advanced Research and **Education Organization**

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Center for Information Technology in Education

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Cyclotron and Radioisotope Center

General Affairs Section Tel. +81-22-795-7800 http://www.cyric.tohoku.ac.jp/index-i.html

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Center for Interdisciplinary Research

General Affairs Section Tel. +81-22-795-5757 http://www.cir.tohoku.ac.jp/j/index.html

Cyberscience Center

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Tohoku University Hospital

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WPI Advanced Institute for Materials Research (WPI-AIMR

General Affairs Section Tel. +81-22-217-5922 http://www.wpi-aimr.tohoku.ac.jp/

Information about the entrance examination

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Information for international students

Student Exchange Division, Education and Student Support Department Tel. +81-22-795-7776 http://www.insc.tohoku.ac.jp/

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