YNU strengthens its works on research and education, community relations and student activities

**International Symposium “African Development and Girl's Education - Towards gender parity in basic education”**

In parallel with the 4th Tokyo International Conference on African Development (TICAD IV), MEXT (Ministry of Education, Culture, Sports, Science and Education) and YNU jointly held an International Symposium “African Development and Girl's Education - Towards gender parity in basic education”. This symposium was held to analyze the factors that undermine the school enrollment of women in Africa and the debates focused on potential solutions to create a favorable education environment, raise the quality of education and empower women. The symposium was attended by 403 peoples including Senior Vice-Minister Yasuko Ikenobo of MEXT, President Ellen Johnson-Sirleaf of Republic of Liberia, some notable specialists, NGO representatives, students and citizens. It was commented how the fund should be insured and the initiative to be conducted for correcting the disparities between male and female among the global society including Japan and African countries. These measures were recommended to discuss at policy level, community level and classroom level for removing obstacles for girls’ education and to establish a child-friendly learning environment.

**YNU selected to work for 2008 Global COE Program “Innovative Integration between Medicine and Engineering Based on Information Communications Technology”**

The 2008 MEXT Global COE (Center of Excellence) Program selected the “Innovative Integration between Medicine and Engineering Based on Information Communications Technology” project which was proposed by YNU. This is the second project selected for YNU.
under the Global COE Programs following the program “Global Eco-Risk management from Asian Viewpoints” (Leader: Prof. Hiroyuki Matsuda, Faculty of Environment and Information Sciences) which was selected in 2007.

There are only 12 universities nationwide selected for two or more Global COE projects. The national selection process was extremely competitive and the recognition for multiple projects for YNU proved the high potential of its quality in research and education to the society.

This Project will place body area network (BAN) in the center, and will expand it to the advanced medical welfare service and social infrastructure by connecting it to the outer infrastructure system. The YNU research group is expected to become the leader in the world for international standardization (IEEE802.15.6), industrialization and rulemaking as well as its research and education. Through this project, Yokohama, along with Boston, is expected to become an internationalized city on medicine and engineering integration.

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**YNU ranked among the top in research income for Industry-Academic-Government Collaboration Projects**

According to the result of 2007 “Industry-Academic-Government Collaboration at University” survey announced by MEXT, YNU was ranked among the top Japanese universities in project achievements (research income etc.). While this ranking mostly lists large-scale universities among the top for number of projects and amount of research incomes, YNU was ranked among the top as a middle-size university after achieving its work practically.

Especially, with income from patent rights being ranked 12th, this shows that YNU has shown its “Practicality” as one of the university’s charter in industry-academic-government collaboration works.

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**Leveling up the environmental research and education... Concluding framework agreement with the Institute for Global Environmental Strategies**

In March 19th 2007, YNU concluded a framework agreement with the Institute for Global Environmental Strategies. This agreement will promote the research and education work of environment assessment and environment management internationally, especially in Asian Region. It is expected to promote the academic relationship with each other for improving the level of environment research and enhance human resources development by working a joint project, hosting academic seminar, and exchanging staffs.
YNU and KHK concluded a “Framework Agreement” in October 2007. This agreement will enhance the research level and cooperation between both sides by taking advantage of their high-quality talent, facilities, and information. The YNU Center for Risk Management and Safety Sciences and Office of Industry and Community Liaison are expected to give much contribution to the reassurance and security of the society through this agreement.

In March 2008, YNU concluded an agreement with Kanagawa Pref. Education Committee for working jointly on unified lower and upper secondary school education. Under this agreement, the YNU affiliated Yokohama Junior High School and Kanagawa Prefectural Koryo High School will work together on unified education and exchange for teaching staff, which is the 2nd among national universities and the 1st in eastern Japan to start this project. It is expected to promote an educational initiative as “The pioneering model on Kanagawa secondary education”.

Prof. Toshihiko Baba of the Faculty of Engineering was awarded with “2006-2007 IEEE/LEOS Distinguished Lecturer Award” for his contribution on the advanced research on photonic nanostructure fiber device. This award is presented to researchers who are highly recognized in the field of laser and optical fiber communication technology. Prof. Baba is the 5th Japanese awardee and delivered twelve lectures in 6 countries in a year.
Associate Prof. Junji Shikata of the Faculty of Environment and Information Sciences was awarded with “Wilkes Awards 2006” from the British Computer Society (BCS) and “Society of Information Theory and its Applications Incentive Award” from Society of Information Theory and its Applications (SITA). “The Wilkes Award” was presented for his contribution to “The Computer Journal” (Vol.49 310-321, May 2006) which is the most recognized academic journal published by BCS. The “SITA Incentive Award” was awarded at the 30th Information Theory and its Applications Symposium held in November 2007.

Prof. Satoshi Nakai of the Faculty of Environment and Information Sciences was awarded with the Society of Toxicology Paper Award from the Society’s Risk Assessment Specialty Section for the contribution of the application of the risk evaluation technique, and a presentation ceremony was held during the Society’s annual conference in Seattle, USA on March 17th, 2007. The title of the paper awarded was “Pediatric susceptibility to 18 industrial chemicals -A comparative analysis of newborn with young animals- (Regulatory Toxicology and Pharmacology)” which was jointly written with researchers from National Institute of Health Sciences. His paper was recognized for comprehensive study on difference of sensitivity on chemical material disclosure on animals.

Prof. Hitoshi Mizuguchi of Faculty of Engineering awarded at Pan-Pacific Imaging Conference (PPIC' 08)

This conference award recognizes Prof. Mizuguchi for his creation of a new system of electronic paper which is able to use repeatedly based on the alternation of molecular arrangement.

Prof. Mizuguchi, appointed as the vice-chairman of Society of Imaging Science and Technology in USA, sold the patent of black colorant produced jointly with Toda Kogyo Corp. to the German major chemical company BASF in 2004. And his presentation on crystal structure of latent colorant and solubilizing technology of organic
colorant at the 21st International Imaging Science and Technology in Baltimore, USA was awarded with the Best Interactive Paper Award.

**Associate Prof. Kohki Mukai received the MEXT Science and Technology Award (Research Section)**

Associate Prof. Kohki Mukai of the Faculty of Engineering was awarded with 2008 MEXT (Ministry of Education, Culture, Sports, Science and Technology) Science and Technology Award (Research Section) for his work on “quantum dot laser for optical communication”. This award is given for the outstanding development of science and technology in Japan. Associate Prof. Mukai’s team was highly evaluated for leading the world by putting into practical use of quantum dot laser which is considered as a key device for realizing a society with high-capacity optical communication.

**YNU Professor receives Minister of Health, Labour and Welfare Award for contribution toward an economic outcome of 72 billion yen**

Professor Kotoji Ando of Faculty of Engineering worked as a director of a project sponsored by the Ministry of Health, Labour and Welfare. The project helped to rationalize and extend the cycle of opened inspection for boiler and pressure vessel used for oil refinement and petrochemical plants. He also initiated the third party inspection system by private sectors. His work has been recognized to have brought a great economic outcome approximately up to 72 billion yen (66 hundred USD) per year by reducing the cost of open inspection and operation suspension without increasing the number of industrial accidents. His contribution is recognized as “performance awards” by the Minister of Health, Labour and Welfare.

**Prof. Nakamura awarded “2008 Japan Society of Civil Engineers Overseas Work Encouragement Award”**

Prof. Fumihiko Nakamura was awarded the Japan Society of Civil Engineers Overseas Work Encouragement Award. This award is given to Japanese engineers (50 years old or younger) who
have dedicated to the development of civil engineering and improvement of social capital in foreign countries, and is also expected to contribute more in the future. Prof. Nakamura achieved many works by contributing as a specialist for urban transportation planning and designing, and traffic policy especially for bus, tram, motorbike and pedestrians’ space design and road traffic controlling in large cities. He contributed these works in both developing and developed countries with cooperation from local and government technicians. His contribution and achievement was highly respected and brought him the award.

**Prof. Kobayashi awarded the Prime Minister Commendation**

In July 2007, Prof. Hideo Kobayashi of the Center for Risk Management and Safety Sciences was awarded the Prime Minister Commendation as a contributor for industrial safety. Prof. Kobayashi worked as a committee member for number of government committees such as Advisory Committee on Energy and Natural Resources of MEITI and contributed to enhance the safety for high-pressure gas and nuclear safety. He also trained many talents related to these fields and thus was highly recognized after dedicating himself to the safety in industries.

**YNU student receives the “Most outstanding presentation award” at International Fatigue Conference**

The 6th Engineering Integrity Society International Conference on Durability and Fatigue “Fatigue 2007” was held at Cambridge University UK in March 2007, and Mr. Toshiro Osada of the Graduate School of Engineering (advisor: Prof. Kotoji Ando) was awarded the “Most outstanding presentation award” after delivering a lecture titled “High Temperature Fatigue Strength of Heavily Machined and Crack-Healed Alumina” (125 £ for supplementary prize). The International Fatigue Conference is the largest conference in the world for material fatigue and there were many specialists gathering from all over the world. This award is presented to young researcher who is 30 years old or younger and 2 speakers including Mr. Osada was awarded.
YNU held a Global COE International Symposium “Emerging Ecological Risk and Food Security in Asia” at the Education and Culture Hall on Feb. 23rd, 2008. There were approximately 150 participants of researchers, students, and citizens. Lectures were delivered by Global COE leaders Prof. Hiroyuki Matsuda and Prof. Ryohei Kata, and 4 foreign researchers. Dr. Rogelio N. Conception of the Ministry of Agriculture of Philippines lectured about “climate change and emerging ecological risks on agriculture and food security” and Dr. Fahmuddin Agus of the Indonesian Soul Institute about “warning on deep issue of Co2 emission caused from forest fire of peet soil at Sumatra Island”. Prof. Jamal Othman, from Universiti Kebangsaan Malaysia, lectured about the “importance of preserving mangroves” and Prof. Lou Xiaobo of Tokyo University of Marine Science and Technology lectured about “deterioration on aquatic resources and risk management in China”. The symposium gave a meaningful opportunity to think about the current situation of ecological risk on Asian agriculture and the food security in the future.

The International Workshop on Medical ICT, which was inaugurated by YNU Medical ICT Center, Yokohama City University and National Institute of Information and Communications Technology, held the 2nd workshop at Oulu University (Finland) for 3 days from Dec. 11th to 13th 2007. Interdisciplinary fields are discussed in the symposium which links medicine and information communication technology, cutting edge R&D, talent training, international standardization, etc. The symposium gathered participants from 14 countries. From YNU, 36 members participated including Vice President Prof. Shinsuke Watanabe and the Chairman of the organizing committee Prof. Ryuji Khono. The next workshop is planned to be held in North America.
The “Port-city University League (PUL)”, a project proposed by YNU 2 years ago, held the 2nd meeting in Chennai India, hosted by Indian Institute of Technology, Madras (IITM) in December 2007. At this meeting, which lasted 3 days, the project initiated by YNU Center for Oceanic Studies and Integrated Education (the 1st domestic organization which works for interdisciplinary education program at the graduate level focusing exclusively in the field of social sciences, engineering, environment and information) was introduced and gathered much attention from the participants. Also the IITM reported their works on the disaster of 2004 Indian Ocean tsunami which struck Chennai City and the south east coastline of India, and there were many other discussions held for number of subjects in the meeting. The presence of University of Lisbon (Portugal) and University of British Colombia (Canada), newly joined from this meeting enhanced the significance of PUL.

YNU has established the Interdisciplinary Research Center

YNU established the Interdisciplinary Research Center funded by the MEXT “Special Coordination Funds for Promoting Science and Technology”. This project aims to establish a system for training young faculty members who will be able to work with a wide view on multi-field assimilated research area. The Center offers tenure-track positions at the assistant professor level in the field of interdisciplinary strategic research. Eleven new members have started working on interdisciplinary fields and are actively interacting with each other.

YNU selected for “2008 Promotion for Enhancing Industry- Academia-Government Collaboration in Urban Area (General Type*)”

This research project aims to work for “rapid manufacturing and functional assessment of three-dimension micro-system with nano-micro material engineering and image measurement” by uniting knowledge from manufacturing firms of inland Yokohama City and YNU. The YNU and the City of Yokohama undertook the application process for this project in 2006 with the initiation of the faculty members from YNU Faculty of Engineering. The project was selected in 2007 after the enhancement of the core institutions of Yokohama City. The funding for this project is approximately 1.5 hundred million yen (1.38 million USD) per year and will be
conducted for three years with a matching fund from the university.

(*This project, initiated by MEXT (Ministry of Education, Culture, Sports, Science and Technology), will focus on enhancing the features of local community, on developing a new technology seeds by utilizing university’s wisdom, on creating a new business, and on cultivating an R&D type of local industry. This joint proposal from YNU and City of Yokohama is one of 5 projects selected nationally in 2007.)

**YNU launch Business Game “YBG”, adapted to universities nationwide**

YBG (Yokohama Business Game), which was introduced by YNU Prof. Hiroaki Shiraishi of the Faculty of Business Administration, is a leading-edge educational model which is being adapted to universities all over Japan. It forms an imaginary economic market in the computer for the players (student) to compete their performance by producing and selling goods as a member of a company and by this will learn the system of decision-making. The biggest feature of this is that the teachers will be able to create a business model necessary with minimum programming effort. With this, students will be able to learn phenomenon of complex matters not only from the lecture but also practical knowledge and methods, enterprising business attitude through simulated business experience. Currently, 41 Japanese major universities (such as Kyoto University, Tohoku University, Tsukuba University, Waseda University, Gakushuin University) has adopted this system. It also received high reputation overseas after it was demonstrated for total of seven times in five different universities (US, France, China). YNU aims to become the leader in Japan for business education to educate teachers nationwide who will be able to use this experience type method by creating another support system.

**Cost reducing enables mass dissemination... platinum-free fuel cells for vehicles becoming realized in near future**

Since polymer electrolyte fuel cell used for car and home cogenerations uses platinum for catalyzing, there were tasks for costs and amount of resources consumed. Prof. Kenichiro Ohta of Faculty of Engineering and his research group has included transition metal oxides such as tantalums and zirconiums into carbon and nitrogen and with this, has become the pioneer in the world by creating a new material which has more stability than platinum and also catalyzes almost as same as it.

The New Energy and Industrial Technology Development Organization (NEDO) decided to start a consortium-type project from 2008 with 11 groups such as universities and companies gathering. This project will enable to put platinum freeing into practical use with universities and industries collaborating together. With this, a long time dream of creating platinum-free fuel cells may become true. When a low cost fuel cell car becomes real, it will contribute to realize a
true environment-friendly society.

Creating the most relevant facility designing for buildings

Prof. Shin Morishita of Faculty of Environment and Information Sciences and his research group built a simulator which predicts the three-dimensional flow of people in a building jointly with Hitachi Ltd., East Japan Marketing & Communications Inc. and Mosaic Co. Ltd. This simulator applies the system of self-auto-man and will be able to give predictions by using normal business computer. The basic simulator has already been used for designing and reforming at railway stations in Tokyo and will enable to realize the most relevant facility designing for buildings. This will also shorten people's movement inside the building by adopting it to the elevator system.

Field works on Myanmar Cyclone and global disasters

Following the cyclone “Nargis” which struck Myanmar on May 2nd 2008, Prof. Tomoya Shibayama of the Faculty of Engineering and his research group entered Myanmar on 11th to investigate the severe disaster which caused throughout the nation. They presented a report that more than a 3 meter-high tide possibly struck Yangon and also a 2 meter-high wave appeared in the tributary area assuming from their interviews and survey works. They also released number of remarks which caused a mass-disaster such as; people did not have high-floor evacuation facilities and were not able to evacuate from the tide wave; the disaster struck during the night; communication was not enough to alert the warning. Prof. Shibayama also did number of field works such as Indian Ocean Earthquake (2004), Hurricane Katrina (2005), Java Earthquake (2006), Tide wave disaster from Cyclone Sidr in Bangladesh (2007) by visiting to every disaster area and contributed to plan disaster preventions.

Tsunami and Tide wave disaster prevention seminar held in Dar es Salaam

In September 2007, Prof. Tomoya Shibayama of the Faculty of Engineering and his research group held a seminar of tsunami and tide wave disaster prevention under the Japan Society for the Promotion of Science (JSPS) sponsored “Asia Africa Science Platform Program” which the project was titled “Disaster Prevention Engineering against Coastal Disasters, Tsunamis and Storm Surges” in Dar es Salaam, Tanzania. 26 peoples from 8 countries attended the seminar.
and an intense and concentrated discussion went on from various points of view such as about the simulation technology on numeric disaster using ocean disaster prevention technology, creating and using hazard map and the necessity of evacuation planning and cooperation with residents. This is expected to be the first step for YNU to be the leader on ocean disaster prevention among Asian and African countries in the future.

As YNU’s muti-field interdisciplinary research project, the first term interdisciplinary research project “nano-micro science: toward a new structure of the matter” headed by Prof. Kaoru Ohno, Prof. Masatoshi Tanaka and Prof. Jun Takeda, all from Faculty of Engineering concluded its 5 year research term last year and a book was published in January 2008 from the Publisher Springer Verlag, in its 9th volume of “Advances in Materials Research” which is one of the most well recognized science publication series. This report contains wide range of subjects including nano-structure formation on solid surface, ultrafast imaging spectroscopic technology, defects in titanium dioxide, organic radical material, photoelectron spectral and electronic spectral calculating technology, electronic conduction calculating technology, self forming quantum dot, high performance quantum well, thermal property calculating technology, photo regulating micro machine, and complex plasmas.

Associate Prof. Shogo Nakamura contributing to science journal “Newton” November edition

Associate Prof. Shogo Nakamura of the Faculty of Engineering contributed to “Newton” November edition (published Sept. 26th 2007), a science journal which is well recognized in Japan. In the special edition “The Potential of Magnet”, he took part of the article “Searching the magnet which gives a hint to the birth of space”, and photographs from his past experiment are being cited in the article.

(The science journal “Newton” was first issued in 1981 and since has become popular among number of readers. This journal is well known for its full-page illustration, beautiful dynamic photographs and an accurate and easy-to-understand reports covered by forefront scientists. “Newton” is also highly recognized overseas and Taiwanese, Korean, Italian, Spanish, Chinese translations are published.)
Ms. Honma at the center

YNU senior student Ms. Minami Honma (Course of School Education, Faculty of Education and Human Sciences) finished 2nd in All-Japan Bobsleigh Skeleton Championship which was held at Iinawa Kogen, Nagano Prefecture in February 2008. Ms. Honma appeared in track and field sprint at the national competition during her elementary, junior and senior high school days. She switched to bobsleigh after her extraordinary instantaneous force was recognized. She began working fully on bobsleigh from this winter and finished 2nd in the competition. She continues training to become a member of the Vancouver Winter Olympics.

Ms. Honma at the center

After the Meteorological Agency started the emergency earthquake delivery service in October 2007, YNU adopted the emergency earthquake alert system university-wide in April 2008 for the purpose of notifying the warning in advance and securing the safety of students and university staffs in case of massive earthquakes. There are 3 national universities adopting this system so far but has been limited to places necessary. YNU is the first to adopt this system university-wide.

The 2004 Nobel Peace Prize laureate Dr. Wangari Maathai visited YNU in February 2006. A memorial planting ceremony was held at the front of Education and Culture Hall in campus and 200 trees were planted with the attendance of Emeritus Prof. Akira Miyawaki, pupils/students from YNU affiliated elementary/junior high schools, and YNU domestic and foreign students and staffs. A memorial monument was set up on this spot to the memory of Dr. Maathai and was unveiled on March 28th, 2008.

After 2 years from the planting ceremony, the trees have grown up to 2 meters and the campus is expected to be filled with increasingly abundant green.
According to the service record of “Global ILL Framework Project”, the Japan Association of National University Libraries announced that YNU Library was ranked at the top for number of literatures requested from North American Universities for the first half of FY2007 in Japan-America ILL (Interaction of Library Literature). YNU Library was also ranked 3rd in Japan-Korea ILL. During the term between April and September 2007, YNU was requested to provide literatures to universities such as University of Arizona, Yale University, Ohio State University, Yonsei University, etc. YNU will continue to provide much faster and accurate service and aims to become more reliable university internationally by being considered as “the most reliable university for providing literatures”.

### Number of literatures requested from North America (Apr.-Sept. 2007)

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### YNU create the nation-representing “Eco-Campus”

Since the first stage of the beginning of Tokiwadai Campus in 1976, YNU has worked to plant the environment preservation trees as an experiment field under the thought of “Creating
The restored Social Science Research Building 1 with optical medium tile applied

The bird eye-view of Tokiwadai Campus. A full of rich forest is shown as if it was an "Urban oasis"

The restored Social Science Research Building 1 with optical medium tile applied

The bird eye-view of Tokiwadai Campus. A full of rich forest is shown as if it was an "Urban oasis"

hometown forest with hometown trees” initiated by Emeritus Professor Akira Miyawaki who was awarded with the “15th Blue Planet Award”. The work has been accomplished in only 30 years with full of nature which is so-called “The Oasis of Yokohama”. This work has lead to provide a temperature adjusting function with the summer maximum temperature of residential district surrounding the campus decreasing by 3 degrees (warmer in winter in contrast), air cleansing function which keeps Co2 inside the forest and releasing O2, and fire prevention function which provides neighbor residents with a decent aerial evacuation site.

From 2006, an optical medium tile, a technology developed by YNU graduate and Honorary Doctor Akira Fujishima (Nobel Prize candidate), was adopted to the restoring building and promoted maintenance free which has contributed to reduce Co2, and has created an earth friendly “Eco-Campus” representing the country.

While the reports of under-enrollment at universities have been common under the recent trend of decreasing number of children, YNU has increased number of applicants for FY 2008 (increased by 400 applicants compared to previous year, rate increased by 105%). YNU has gathered more visitors year by year for “Open Campus”, which is an event to attract prospective students by showing them the university activities (’06...9169, ’07... 9650, ’08...11064 visitors). This shows that the society’s needs and expectation toward the university has become much higher through its recent work on research, education and projects.
The Faculty of Education and Human Sciences Course of Social Network Globalization will start “Fall Admission (October)” from 2008 aiming to accept students with high sense of “internationalism”. Under this system, students graduated from overseas schools will be recruited and the entrance procedure will be carried out as the “YNU 21st Century Premium Exam”. By adopting this so-called “global standard” system, YNU will further realize its spirit of “Internationalism” with “Practicality” on its base, by securing high quality students with sufficient overseas experience.

The introduction of this system will enhance the opportunity for domestic students to study abroad and foreign students to study at YNU.

For the “2008 Youth Engineer Training Project”, the Ministry of Economy, Trade and Industry (MEITI) selected the “Youth Engineer Training Project for high school students in Kanagawa by university-industry collaboration” which was proposed by YNU as one of the 7 regional coordinators. This project will be jointly run by the Japan Society of Mechanical Engineers and three Japanese leading companies, Nissan Motors Co. Ltd., IHI Corp. and Toshiba Corp, all of which locates its base in Kanagawa Pref. It will run a training project which engineers try to attract engineering as occupation and enhance their interest of engineering as academy by giving lectures, experiments and field trips. Some features are shown in this project such as: Kanagawa Pref. Education Committee and high schools with strong interest in technical education joining this project; a model which will be practical throughout the nation with Japan Society of Mechanical Engineers, a nation-wide organization, cooperating; veteran technicians with high skill, young technicians and female technicians participating in the project. It is expected to become a model program to cultivate career views for students with declining interests in technology.

Among 10,000 students enrolled at YNU, approximately 25% of them are from Kanagawa Pref. While there are many students living away from their families, YNU opened an unmanned vegetable store with the cooperation of local farmers aiming to support students from lack of vegetable foods. This will also promote “local production for local consumption” by deepening links with local community and taking into consideration of local environment. The store opened in the 1st floor of University Hall at the front of University Coop and fresh fruits are being displayed in the metal open rack unmanned. People will be able to pay to the wooden box placed beside the rack. Since the store opened in April 2008, it has become popular among students, and
vegetables such as cabbage, cucumber, eggplant, onion, tomato have been sold out almost everyday.

The Course of Civil Engineering at the School of Engineering hosts an overseas field trip 1-2 times a year for students to learn the situation and tasks of technical support from Japan and the joy and difficulty of working overseas. In March 2007, 16 undergraduate students lead by Prof. Fumihiko Nakamura and Prof. Kazuo Tani visited Dhaka, Bangladesh for 3 days and in September, 3 faculties, 8 graduate students and 8 undergraduate students lead by Prof. Nakamura visited Seoul, Korea. In Dhaka, with cooperation from YNU graduate who works for JICA office and other JICA staffs, members of Japan Overseas Cooperation Volunteers, students were able to visit the construction site of Megna Bridge at the river in east part of the city, bank protection working site, seeing the technical support by Japan and held an exchange activity with students of Bangladesh Technology University. In Seoul, students visited the site of river reconstruction in the city and bridge construction site at Incheon International Airport and also listen to talks from Japanese engineers. Students were given a valuable experience from this trip.
English Debating Program with Cardiff University and University of Pisa

The “English debating program in Europe” which started in 2006, held its second visit in 2007. This year, the program was held at Cardiff University (UK) and University of Pisa (Italy), which both of them concludes academic exchange agreement with YNU. There were 8 students and 2 faculties from the Faculty of Economics joining and discussed about the theme; “Energy Concerns – Will nuclear electricity become sustainable energy?” At Cardiff University, the debate was held both in English and Japanese. They also visited London School of Economics and Oxford University and at Oxford, had an opportunity to exchange with Oxford students. They also met the President of Nikkei Newspaper Europe Mr. Yoji Kokike, who is a graduate of YNU Faculty of Economics, and exchanged talks about politics and economy over a lunch. In Italy, they were specially arranged to visit the Headquarters of Piaggio, which is well known for their products of luxury scooters and motorbikes, and visited the factory line. With this visit, students were able to build their self-confidence by improving their skill in English presentation and debating.

JBIC Internship Experiencing Report Session

In June 2006, the International Graduate School of Social Sciences (IGSSS) concluded “Overseas Economic Cooperation Agreement” with Japan Bank for International Cooperation (JBIC). Under this agreement, the first internship program was held at JBIC overseas branch office and Ms. Yuko Kurita from the IGSSS master course experienced an internship work in Lima, Peru for 3 weeks. Following her experience, a report session was held titled “The role of ODA and its tasks” and presented about issues of ODA and Japanese yen loan toward Latin America, economic cooperation between Japan and Peru, and her experience during the program. There were many graduate and undergraduate students, faculties interested in this theme listening to the presentation and a lively Q&A session followed the report.
YNU Sports Academy donates night illumination

A specified nonprofit corporation YNU Sports Academy (YNUS*) donated 4 night illumination to Tokiwadai Campus tennis court and 2 night illumination to Minami Ward Campus baseball field for both tennis club and baseball club to be able to practice after dark. With this, both clubs are expected to make a greater improvement especially after the baseball club was promoted for 3 straight years and this year to the division 4. (The baseball club is ranked as the top 24 in Kanto Area Universities)

*YNUS is a Kanagawa Pref. authorized corporate body which contributes to healthy growth for young generation and health promotion for local citizens. With motto of “Promoting Sports Culture to Local Community”, YNU staffs, alumni, and students works to organize sports events and other promotional activities to local people with cooperation from the university.

The Wandervogel Club celebrates its 50th anniversary

Established in 1957, the Wandervogel Club, YNU’s top-notch club with more than 500 alumni, celebrated its 50th anniversary in 2007. There was a huge memorial ceremony held with 151 alumni from the first year members to freshman students joining the celebration. A memorial journal “50 years history of YWV” was published at the same time which records the history of the past 50 years. Also for memorial activities, the club holds “Taiwan Gyokusen Climbing”, “Azegamaru Climbing”, “Naenagoya (a cottage built in Myoko for celebrating the club’s 10th anniversary) memorial Ceremony” and “Myokokosan Climbing”.

Mr. Ishizaki from YNUS (left) and Executive Director Kisugi

Celebrating with many alumnus gathering

Night illumination at tennis court
In December 2007, a short term exchange program alumnus reunion held its inauguration ceremony and 40 former program students and 9 faculties participated in the party. Students gathered at the party studied in countries such as 9 in UK, 9 in USA, 7 in France, 4 in Australia, 4 in Germany, 4 in Sweden, 3 in Korea and 1 in Italy which most of them were European countries. Until 1998, number of students in the program was limited to 9 or less per year while after 2003, the number sprung up suddenly, and in recent years approximately 40 students studies abroad every year. Currently, the number has estimated up to 250 students. This alumnus reunion is expected to enhance short term exchange program further and provide a place for exchanging information, creating network between alumni, provide exchange opportunity between graduates with program experience and students and faculties, and will help to enhance the social and international view of active students.

Mr. Yasuhiko Nakata, who is the 1st graduate of the Faculty of Economics in 1953, received the Honorary Doctorate from the Faculty of Environment and Information Sciences on his 77th memorial birthday ("Kiju"). Mr. Nakata served as the President and Chairman of retail companies such as Lawson and Okadaya and later became a part-time teacher for the Faculty of Economics and Faculty of Business Administration. He wrote a thesis “Innovative changes of marketing in retail industry –from the human and social point of view–” and was given the Honorary Doctorate.

In February 2008, the Course of Systems Design for Ocean-Space at School of Engineering held a poster session of graduate thesis. This session intends to promote student’s research activities and communication skills by presenting their research work to their professors and
Many students visited the company booth and senior and junior colleagues. There were graduates who now work for companies which have connections with the Course visiting to the session. They also opened a booth for introducing their companies and answered to the questions given from the students. The major point of this session was that graduates were able to give pointed questions to students from the company’s point of view with heated discussion following. Through this session, especially junior students visiting were able to feel the pressure that they will be doing the same work in the future.

The YNU Affiliated Kamakura Elementary School was awarded the Minister of MEXT Award for enhancing its prominent practice of reading books among children. With more than 18,000 abundant volumes in the library, the school created a place for “children to gather and enjoy reading” and “support children’s proactive works and educate their ability” and also set up a database of the volumes. The library also has a full-time librarian to support. These works to enhance the children’s reading was recognized for the award.

At Taisei Corporation (Headquarters: Shinjuku, Tokyo), YNU alumnus of the company staffs launched “Taisei Yokohama Gathering” in 1978 and currently has approximately 200 members after 31 years of its establishment. Every June, an alumnus party is held with active company staffs including freshmen and retirees of the company gathering to deepen friendship with each other. For 2008 party, approximately 60 members gathered and were introduced with recent trend of university administration and campus lives after the university
reform from YNU faculties. The gathering intends to deepen the tie between alumni and also link further with the university in the future.

Emeritus Professor Miyawaki received 15th “Blue Planet Award”

On June 2006, Emeritus Professor Akira Miyawaki has recently received the 15th “Blue Planet Award” for his outstanding contribution to the proposition and the practice of woods recovery and revitalization based on his concept of “potential natural vegetation”.

The “Blue Planet Award” is an international award offered by the Asahi Glass Company’s Foundation for an individual or an organization which has made an outstanding contribution in the domain of science to the solution on environmental problems of the earth. Two awards are given each year and a Japanese was selected for the first time.

The names of person awarded this prize are Lord Robert May, Chairman of Royal British Association, Mr. James E. Lovelock, Honorable Professor, Green College, Oxford University, Dr. Thio Colborn, Scientific Advisor to WWF (World Wide Fund for Nature).

Professor Kohno’s Group Passed UWB Standards

Prof. Kohno has leaded to establish an international standard on wireless PAN (Personal Area Network) based on UWB (Ultra Wideband) technology, e.g. IEEE802.15.4a in March 2007. He is a leader of 21st century COE on creation of future social infrastructure based on info-communication technology (ICT) in Yokohama National University, and has chaired a research group in NICT (National Institute of ICT) and a consortium on UWB with 40 companies. In the standard, some patents on an interference cancelling technology are applied. Prof. Kohno and his chairing group have first implemented a CMOS-MMIC for UWB-WPAN in a world, and established a technical requirement for a new regulation on UWB systems in MIC (Ministry of Internal Affairs and Communications) in Japan in March 2006. Its spectral mask has been involved in a recommendation for UWB systems of ITU-R (International Telecommunications Union: Radiocommunications).

Professor Yoshikawa Succeeded the World’s First Ultra-Fast Operation of the SFQ Microprocessor

Prof. Yoshikawa in the department of Electrical and Computer Engineering successfully proved the high-speed operation of the single-flux-quantum (SFQ) microprocessor for the first time in the word (February, 2004) by the cooperation of Nagoya University, The National Institute of Information and Communications Technology (NICT), and Superconductivity.
Research Laboratory (SRL). Due to very high-speed and extremely low-power operation of SFQ circuits, these results become a large step toward the realization of ultra-high-speed, large-scale integrated circuits (ultra-high-speed LSI). His group now continues to establish a new record of the world best performance of the SFQ microprocessor.

■ Professor Nishizawa Designs a Louvre branch in Lens, France

In 2005, Professor Ryue Nishizawa was awarded a designer of a branch museum of the Louvre “Louvre, Lens” which is to be constructed in Lens, north of France.

His design was selected among one of 120 applicants. Professor Nishizawa’s plan uses a combination of concrete and metal in order to maximizes the intake of a natural light by using a flat glass roof. The new Louvre branch will be open in 2009.

Professor Nishizawa was also given the award by the Ministry of Education and Technology encouraging the young architect.

■ BASF purchased two patents of Prof. J. Mizuguchi

BASF, the largest chemical company in Germany, signed up a contract to purchase two patents on black pigments developed by Prof. Mizuguchi together with TODA Kogyo Corp(2004). The product is environmentally-friendly which can replace the carbon black used widely in all over the world. This is a research result of Prof. Mizuguchi for years on the theory of color generation mechanism.

Prof. Mizuguchi is currently the vice president of the Society for Imaging Science and Technology in US since 2004.

■ Professor Komeya received 2007 ECD Bridge Building Award Recipient, American Ceramic Society

Professor, Dr. Katsutoshi Komeya, Graduate School of Environment & Information Sciences, received 2007 ECD Bridge Building Award, American Ceramic Society, in January, 2007. This award is given to one foreign researcher or engineer contributed to the engineering ceramics area. He is the third recipient as Japanese researchers. Professor Komeya has accomplished many research activities from seeds innovation to applications development in nitride ceramics, especially silicon nitride, aluminum nitride and sialons. He is a Fellow, American Ceramic Society, and is a member of World Academy of Ceramics.
Professor Baba Received JSPS Award

Prof. Baba received the JSPS Prize in 2006 for his pioneering research on photonic crystals and silicon photonics. Professor Baba in the Graduate School of Engineering, as one of pioneers of the photonic crystal research, has reported the first observation of light guiding phenomenon, a concept of photonic IC, the world's smallest laser, a proposal of slowlight optical buffer, the first observation of light focusing by negative refraction, high efficiency LEDs, and so on. The 3D photonic crystal fabricated by his group and coworkers was introduced in the cover sheet of Nature Materials journal.

He has also lead the Si photonics research, which is rapidly increasing its importance in optoelectronics and VLSI technologies. For these achievements, he received the JSPS prize, for which nearly 20 winners are selected from humanities, culture, science and technology every year. He is the first winner for the field of electrical and computer engineering.

A product from collaboration research (fluoropolymer film) with Asahi Glass Co., Ltd. applied to FIFA World Cup Stadium in Germany

Fluoropolymer film (Ethylene Tetrafluoro Ethylene, (ETFE)), a product from collaboration research between YNU Prof. Masaya Kawabata of Faculty of Engineering and Asahi Glass Co., Ltd., has been applied to the roof and facade of the Allianz-Arena in München Germany, a stadium where the 2006 FIFA World Cup was held (2005). With this collaboration research, Prof Kawabata held an experiment and analyzed the strength, deformation and thermoelastic properties of fluoropolymer film from Asahi Glass and studied its structural demands. The result from this study has led to the creation for the guideline of structural design for fluoropolymer film by collaborating with Membrane Structures Association of Japan.

Moreover, this ETFE film is set to be used at the main stadium and the swimming arena for the 2008 Beijing Summer Olympics.

YNU Prof. Masayoshi Watanabe of Faculty of Engineering co-winning the ECSJ Award and the SPSJ Award

Professor Masayoshi Watanabe of Faculty of Engineering won the “ECSJ (Electrochemical Society of Japan) Award for Creative Work” (April 2006) for his pioneering achievement in the field of electrochemistry and the “SPSJ (Society of Polymer Science, Japan) Award for Outstanding Achievement in Polymer Science and Technology” (May 2006) which is awarded to those who contributed to a notable progress in the field of polymer science. This is an appreciation of Prof. Watanabe’s long research activity on the creation of new interdisciplinary
science and technology between polymer science and electrochemistry.

Prof. Watanabe’s work will be utilized in many environmentally friendly energy-conversion devices such as new polymer lithium batteries, fuel cells, solar cells, and also for new responsive materials against external stimuli such as voltage, light, and temperature.

■“Best Interactive Paper” Award to Prof. J. Mizuguchi

Prof. J. Mizuguchi presented a paper on the crystal structure of latent pigments and their electronic applications at the NIP21 International Conference on Digital Printing Technologies and received the “best interactive paper” award from the Society for Imaging Science and Technology (IS&T)(2005). NIP conference is the largest imaging conference in the world organized by IS&T. Every year, there are more than 600 attendees. Prof. Mizuguchi is a leading professors in the field of crystal and electronic structure. The present award is a recognition of his research activities for years.

■Professor Negami ranked 3rd for number of thesis released in the field of topological graph theory

In 2005, Professor Seiya Negami from Faculty of Education and Human Sciences was ranked 3rd in the world for the number of pages of papers written in the field of topological graph theory. Prof. Negami is the pioneer of the topological graph theory in Japan and also one of the well-known mathematician in the world for establishing the new world in this field after “Four Color Theorem” was solved.

Prof. Negami is also known as a multi-talented person for painting, writing, producing short films and programming while studying pure mathematics. In 2005, he appeared as “Math Detective Seiya” in Fuji Television Networks' educational TV show and is still playing “Seiya” outside TV to teach children the joy of mathematics.

■Prof. Urano’s group cooperated to install a Chinese center of environmental risk management


Tsinghua University is a most important university leading research and education in China. In this university, the “Research Center of Modern Environmental Biotechnology” and the “Research Center of Persistent of Organic Pollutants” have already been installed, and a lot of
superior activities in environmental research are going on.

■Professor Matsuda received a fellowship award from Pew Institute for Ocean Science

Hiroyuki Matsuda is one of recipients of the 2007 Pew Fellowship in Marine Conservation, awarded by the Pew Institute for Ocean Science and will receive US$150,000 to conduct a three-year conservation project designed to address critical challenges to healthy oceans. He is the first Pew Fellow in Marine Conservation from Japan. His Pew Fellowship works towards a marine management plan for the Shiretoko Peninsula UNESCO World Heritage site, designated in 2005 because of its importance in providing habitat to a number of endangered and endemic marine and terrestrial species. Through assessment of populations of marine birds, mammals and fish as benchmarks to measure the benefits of ecosystem management, the project will serve as a case study for adaptive management of marine ecosystems and co-management of coastal fisheries.

■Prof. Okada awarded from the Commissioner of Japan Patent Office and performed at OECD Policy Conference.

On April 2005, Professor Ellie Okada of International Graduate School of Social Sciences was awarded “Special Awards for Services on Intellectual Property Rights System” from the Commissioner of Japan Patent Office. Prof. Okada’s work was highly evaluated for the development of Industrial Property (IP) Rights System by pointing out the importance of actualizing potential and intrinsic value on IP by strategic management on innovation competencies as well as serving as a committee member for councils under the government. Prof. Okada also attended the OECD Policy Conference “Intellectual Asset and Innovation” held in Italy in 2005 as a representative of Japan as well as making a keynote lecture at “The Knowledge Forum (organized by Terra Forum)” in Sao Paulo on 2006, where she is recognized internationally in the field of strategic management on innovation competencies and IP.

■YNU Conducts Special Investigation on Indonesian and Sumatra Earthquakes

Professor Shibayama of Engineering has conducted investigation on the cause and effect of Indonesian and Sumatra Earthquakes in collaboration with local researchers of YNU alumina (2004).

Professor Shibayama’s research was selected part of the Asia & African Science Platform Program by the Japan Society for the Promotion of Science (JSPS), an agency of the MEXT.

■Ms Hayama was given the Legion d’Honor

Ms. Reiko Hayama, a graduate of YNU and resides currently in France was given the medal
of Legion d’Honor by the French government for the first time to a Japanese women architect (2005).

Ms. Hayama graduated from YNU with a degree in Architect in 1958 and worked for several French architects including a famous architect Corbusier. She obtained the official permit in 1975 to work as a first Japanese architect in France in recognition of her great contribution to the promotion of Japan-France relations during her 38 years stay in France.

■ The “Port-city University League (PUL)” connects port cities and universities around the world

In November 2006, the “Port-city University League (PUL)” was launched with the initiation by YNU and the 1st meeting was held in Yokohama, Japan. In December 2007, the 2nd meeting was held in Chennai, India.

The “Port-city University League (PUL)” is a new type of exchange network in the fields of history, peoples and festivals as well as marine studies, industries and trading, which was created to connect universities and the local citizens from port cities and making use of the character of the port city which played the role as the core of cultural interaction from the past. With the initiation by YNU, currently 9 universities from 8 countries has become the member such as University of Southampton (UK), Shanghai Jiao Tong University (China), Indian Institute of Technology, Madras (India), University of Sao Paulo (Brazil), University of Lisbon (Portugal), etc. The PUL aims to increase the number of membership as well as to enriching the activities in the future.
Graduate Student Won MONBUKAGAKU Minister Prize in Advanced Technology Award

Ms. Megumi Morita, 2nd-graded master candidate at Division of Electrical and Computer Engineering, Graduate School of Engineering, received MONBUKAGAKU Minister Prize in Advanced Technology Award 2005. The awarded paper was entitled “Toward the practical utilization of MRI cancer treatment”. She has studied a new therapeutic method of hyperthermia (a therapeutic procedure of raising the body temperature for cancer) using a resonant circuit as an tiny implant. Her research has been directed by Associate Professor Yasushi Takemura, whose serving graduate students have been awarded five times by academic societies in recent four years.

YNU Students Selected Friends of the Highline Competition in New York

YNU students of the Faculty of Engineering (Architecture) were selected in the architectural idea contest of the Friends of The Highline held in New York. About 720 students group participated from 30 countries. (2004)

IGSSS Awarded Continuation of World Bank’s Infrastructure Program For Foreign Students

YNU’s International Graduate School of Social Sciences (IGSSS) was awarded the continuation of the Masters Degree Program of Infrastructure sponsored by World Bank (2006). The program which started in 1995 is designed for high ranking middle management officers from developing countries. The program is taught in English and focuses on design, planning and management of various infrastructures.

YNU has 8 special MA programs in total under different sponsors such as World Bank, IMF, JICA and others which include Public Policy by World Bank and Taxation, Transition Economy by IMF.

English Debate Tour in Europe Held

The Faculty of Economics conducted the 1st English Debate Tour in Europe with University of Paris 12 in France and Erfurt University in Germany (2006). The theme of the debate was on “How to improve the employment of the Youth” which was a common concern for young students in different countries. 5 students and 2 professors from the Faculty of Economics participated. The debate was followed by a visit to local entrepreneur
companies and discussion with their presidents and special lecture by local managements.

■ Launching an Integrate Education for Oceanic Management at Graduate Level

“Integrated Oceanic Management” has been a highly worldwide major issue until now. With the establishment of “Oceanic Basic Law” in April 2007, a new initiative for oceanic integration management is about to begin. In June 2007, Yokohama National University established the Center for Oceanic Studies and Integrated Education, which is a free, loose-knight group of researchers related to oceanic studies from fields of social sciences, engineering and environment and information, and is virtually the first oceanic integrate educational program at graduate level in Japan. At the inauguration symposium, much interest was shown at national level by having Administrative Vice-Minister of the Ministry of Education, Culture, Sports, Science and Technology, and Vice-Minister of the Ministry of Land, Infrastructure and Transport etc. visiting.

■ YNU invites former Minister of Finance of Kingdom of Thailand as Visiting Professor, and hold a special lecture

Yokohama National University has invited the former Minister of Finance of Kingdom of Thailand, Dr. Thanong Bidaya as Visiting Professor for the first semester in 2007. Dr. Thanong is a graduate of YNU who graduated Faculty of Economics in 1970. In June, a special lecture was held titled “Future perspective of ASEAN by Specialist from Thailand” at Port Opening Memorial Hall (Jack’s Tower).

At the lecture, panelists such as Editorialist from Asahi Newspaper, Vice-Minister of the Ministry of Economy, Trade and Industry and Professors from Yokohama National University participated in the debate, and despite the lecture was held in weekday night, the Hall was full of attendance.

■ YNU establish the Center for Corporate Strategy and Economic Growth aiming to become the leading center for strategic growth study in Japan

In 2007, Yokohama National University has established the Center for Corporate Strategy and Economic Growth as the newest common facilities for research and education. The Center aims to become the leading center for strategic growth study in Japan by collaborating with fields such as technology management and engineering as well as economics and business administration, and will promote the study of corporate strategy from broad range of aspects. The Center will start international collaborate research together with universities such as University of Oulu form Finland, and will launch a industry-academic-government network with
Japanese government, local government, industry field and academic researchers for feeding back the achievements to the society.

■ YNU agrees with Yokohama F. Marinos for business cooperation, may start football coaching class at YNU affiliated school

In October 2007, YNU concluded a business cooperation with Yokohama F. Marinos J-league football club. Both parties agreed to hold a football coaching class at YNU elementary and junior high school by inviting coaches from the Marinos.
Yokohama National University Topics
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