NTU Scientists Win National Awards

NTU Press to Create Brand Image
Creativity Filled Campus Art Festival
NTU Addresses Taiwan's Population Issues

Special Report
Cross-Strait Academic Exchange
From the President's Office

Over the past year, NTU has witnessed exciting developments regarding its Worldclass University Project (WUP). The university achieved its goal of being one of the world’s top 100 universities by placing 95th in the 2009 Times Higher Education-QS World University Rankings. More impressive was NTU’s standing in the WUR’s sub-categories: 60th place in arts and humanities, 47th in engineering and IT, 45th in life sciences and biomedicine, and 51st in natural sciences.

The WUP seeks progress in research, education and internationalization. NTU has boosted its number of teaching assistants to nearly 600. It is upgrading its infrastructure by constructing new buildings, laying a campus-wide sewer system, and modernizing teaching facilities. The university has also seen a significant rise in its enrollment of international and exchange students.

The goal of joining the world’s elite is part of the drive to promote the university’s brand in the global age of the knowledge-based economy. Harvard and Stanford, for instance, are venerated partly due to their successful brand images. Global enterprises use brand image as one of the tools to measure the capacity of a society’s higher education system to supply sufficient talent. NTU’s new standing as a top-100 university will draw greater international attention.

Taiwanese society, having provided NTU with the greatest educational resources in Taiwan, also places its greatest expectations in the university. In response, we must proceed with modesty, and must cherish our new standing among the world’s elite universities as we continue to chart our course to explore new frontiers of knowledge.
NTU to Host Largest Annual Meeting of Asia Pacific Universities

At the board of directors meeting of the Asia-Pacific Association for International Education held last year in Seoul, South Korea, NTU bested over 20 universities to secure the honor of hosting the association’s annual meeting in March 2011. In mid April, NTU President Si-chen Lee travelled to Griffith University in Australia to attend the association’s 2010 annual meeting and formally receive the hosting rights for next year’s meeting. While there, President Lee extended an enthusiastic welcome to the meeting’s attendees to come to NTU for the annual meeting next March.

NTU established a special working office for organizing the 2011 APAIE Annual Meeting in April. This international event will be held in the NTU Sports Center.

President Lee and Dean Tung Shen of the NTU Office of International Affairs led NTU’s delegation to this year’s Annual Meeting. The delegation included members of the university’s 2011 APAIE Annual Meeting working office. The Ministry of Education’s Political Deputy Minister, Tsong-ming Lin, accompanied the delegation as a token of the ministry’s support and to show the importance it places on NTU’s hosting of the next meeting. The Foundation for International Cooperation in Higher Education of Taiwan also joined the meeting to make a push for higher education in Taiwan.

APAIE is designed to promote international cooperation among institutions of higher learning, and its annual meeting stands out as one of the three premier annual meetings on higher education in the world. University presidents and vice presidents and university officials in charge of international affairs attend the meeting to discuss bilateral and multilateral cooperation plans. The meeting includes a round table forum for university presidents, a meeting of the association’s general membership and numerous symposia, as well as a large education fair. While the association’s membership is made up of Asia Pacific universities, a large contingent of European and North American universities seeking to establish exchanges with Asia Pacific universities attended the meeting this year.

The theme of the 2011 meeting will be “Asia Pacific Education: Impacting the World.” Scheduled for March 9 to 11, the meeting is expected to draw approximately 800 representatives from 400 universities in 50 nations.

NTU’s hosting of APAIE’s annual meeting affords Taiwan a valuable opportunity to promote Taiwan’s high quality of higher education as well as its vibrant urban life and culture to an international audience, and thus boost the nation’s international image. Moreover, this major meeting of Asia Pacific universities is also certain to increase opportunities for international cooperation for all universities in Taiwan. In coordination with the meeting, a free study abroad education fair will be held on March 12 to provide students in Taiwan with first-hand information and consultations.
**NTU Hosts Taiwan’s First ASAIHL Annual Conference**

NTU hosted the annual conference of the Association of Southeast Asian Institutions of Higher Learning from April 16-18, the first time the conference has been held in Taiwan. This year’s meeting was the largest yet for the association, drawing 111 participants from 64 institutions in 15 countries. NTU is the association’s only member in Taiwan.

The conference’s theme was “Higher Education: Engaging the Knowledge Economy.” The conference also focused on the three sub-topics of industry-academia cooperation, teaching quality and student support.

**Tsinghua University President Gu Binglin Discusses Cooperation with NTU President Lee**

President Gu Binglin of Tsinghua University in China led a delegation to NTU to hold talks on cooperation between the two universities with NTU President Si-chen Lee. While the two universities currently host short-term exchange visits of doctoral students, the two presidents intend to expand the exchanges between scholars and students, develop dual-degree programs and establish a joint fund.

During the visit, the executive director of Tsinghua’s Office of Scientific Research and Development, Prof. Jiang Peixue, also met with NTU Dean of Research and Development Ji-wang Chern, to discuss scientific and academic exchanges.

President Gu focused on four areas of cooperation. First, he invited university presidents in Taiwan and China to hold summit meetings on global and cross-strait issues. He hopes the two universities can hold symposia to provide platforms for discussions between researchers and that the two sides can send professors to lecture at each others’ schools. In addition, he hopes the number of exchange students between the two universities can be increased through dual-degree programs and summer research programs.

President Lee said that Tsinghua students could participate in NTU’s Youth Leadership Programs and suggested that students from the two universities take part in service-oriented activities at each others’ institutions so as to contribute to the local communities as well as better understand the different cultures of Taiwan and China.

Finally, President Gu stated his desire that Tsinghua and NTU set up a joint fund for cooperation efforts similar to one Tsinghua has established with Taiwan’s National Tsing Hua University.

During the conference, Dr. Chung-luang Liu of Academia Sinica spoke on teaching and learning and explored the core issue of education—its purpose. Prof. Terrence Doyle, of Ferris State University in the United States, examined the learning process from a scientific point of view, pointing out the conflicts between current teaching methods and the results of scientific research.

ASAIHL was founded as a non-governmental organization at a meeting of the presidents of eight Southeast Asian national universities in Bangkok, Thailand, in 1956. Its mission is to strengthen cooperation and communication among institutions of higher education in Southeast Asia. The association’s members are renowned universities in the region, and its membership currently includes 150 institutions from 15 countries. The ASAIHL annual conference plays a key role in promoting cooperation and exchanges among regional universities.

This year’s conference was organized by the NTU Office of International Affairs with the support of NTU’s Yen Tjing Ling Industrial Research Institute. The next ASAIHL annual conference will be held in Hanoi, Vietnam, in December.
NTU's Institute for Advanced Studies in Humanities and Social Sciences (IHS) and College of Liberal Arts teamed up with the Society for Cultural Interaction in East Asia to host the society’s second annual meeting at NTU on May 7 and 8. SCIEA invited scholars conducting research on East Asia to present academic papers addressing the meeting’s four themes of “Self and Other in East Asian Cultural Exchange,” “Political Identity and Cultural Identity in Context of East Asian Cultural Exchange,” “Universal Values and Local Characteristics within East Asian Cultural Exchanges” and “Various Facets of East Asian Cultural Exchange in Terms of Intermediate Agents.”

Dean of the College of Liberal Arts, Kuo-liang Yeh, hosted the meeting’s opening ceremony, at which Dean of the IHS Chun-chieh Huang was named SCIEA president for the 2010-2011 term. During the meeting, Dean Huang presented his paper, “On the Two Tensions and Their Resolution in Cultural Interaction in East Asia.”

The meeting featured two keynote speakers: Chair Professor Guang-da Zhang of Taiwan’s National Chengchi University, who spoke on “On Cultural Interactions in East Asia,” and Prof. Joshua Fogel, chair of East Asian Studies at the History Department, York University (Canada), who spoke on “The Aftermath of a Material Object: The Mysterious Gold Seal of 57 C.E.”

Two roundtable forums were held during the first afternoon of the meeting. The first roundtable deliberated “Cultural Interaction between Languages and Literatures.” Dean Huang served as moderator, and speakers included Prof. Xiaoming Wu of the University of Canterbury (NZ), Prof. Tokio Takata of Kyoto University, Prof. Yong Chul Choe of Korea University, Professor Siyan Jin of the Université d’ Artois (France), and Professor Wang-zhi Wong of the Chinese University of Hong Kong. The roundtable’s commentators were: Prof. Uchida Keichi and Prof. Guowei Shen of Kansai University (Japan) and Prof. Zhen-he Zhou of Fudan University (China).

The second roundtable discussed “Changing Perceptions and Images of East Asia.” Prof. Shing-ching Shyu, chairman of the Department of Japanese Language and Literature, NTU, served as the moderator; the speakers were Prof. Senjuro Machi of Nisho Gakusha University (Japan), Prof. Gwan Choi of Korea University, Prof. Shyu of NTU and Prof. Bong-jin Kim of the University of Kita-Kyushu (Japan).

Commentators included Prof. De-min Tao of Kansai University, who served as SCIEA’s first president, Prof. Fogel and Prof. Wang Yong of Zhejiang Gongshang University (China).

SCIEA’s outgoing president Prof. Tao spoke during the opening session on the second day, while Professor Emeritus Jörn Rüsen of the University of Witten/Herdecke, who is also chairman of the Institute for Advanced Study in the Humanities in Germany, delivered the meeting’s plenary speech, “Basic Issues of Cultural Interaction—A European Perspective Concerning Historical Identity.” Later that day, 12 group panels were held and 11 individual papers were presented.

The meeting drew over 130 participants from Taiwan and abroad and witnessed the presentation of 71 academic papers, thus achieving SCIEA’s goal of promoting exchanges among scholars from around the world in the field of East Asian studies.
LeCosPA Signs Collaboration Agreements with Leading Physics Institutions

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TU’s Leung Center for Cosmology and Particle Astrophysics (LeCosPA) has signed separate memoranda of understanding (MOU) for collaboration with the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) at Stanford University, the Institute for the Physics and Mathematics of the Universe (IPMU) at the University of Tokyo and the International Center for Relativistic Astrophysics Network (ICRANet).

LeCosPA shares a common and complementary background with these world-class institutions and these agreements are intended to strengthen its ties with them through a broad range of collaboration and exchange programs. LeCosPA is committed to the promotion of international cooperation and collaboration in the field of cosmology and particle astrophysics. Additionally, it is currently developing MOUs with other leading institutions.

KIPAC Director Roger Blandford and LeCosPA Director Pisin Chen personally signed the MOU between their organizations. KIPAC is an independent laboratory of Stanford University, and is housed at the Stanford Linear Accelerator Center (SLAC) National Accelerator Laboratory. It is funded in part by Stanford University and the United States Department of Energy.

Established in 2007, IPMU uses cutting-edge science to address the most basic and profound mysteries of the universe. These include: What is the universe made of? How did it begin? What is its fate? What fundamental laws govern it? And, why do we exist at all? Its new building on the University of Tokyo’s Kashiwa campus was recently inaugurated. LeCosPA signed its MOU with IPMU in 2009.

ICRANet is an international research organization with four member countries (Armenia, Brazil, Italy and the Vatican State) and three member universities and research centers (University of Tucson, University of Stanford and International Center for Relativistic Astrophysics). The main purpose of ICRANet is the promotion of international scientific cooperation. During a visit to LeCosPA, ICRANet Director Remo Ruffini signed a collaboration MOU with LeCosPA Director Pisin Chen.

College of Engineering Signs Student Exchange Agreements with Three Chinese Universities

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ean Huan-jang Keh of the College of Engineering led three NTU engineering professors to China from April 15-21 to sign student exchange program agreements with Guangxi University, Shanghai Jiao Tong University’s School of Naval Architecture, Ocean and Civil Engineering, and Beijing University’s College of Engineering.

The three professors were Associate Dean Chia-pei Chou of the College of Engineering, Chairman Chien-cheng Chang of the Institute of Applied Mechanics.

Representatives from the three Chinese universities visited NTU last year to discuss the possibility of signing student exchange agreements. After thorough discussions, the agreements were finalized earlier this year. Then, they were finalized for signing after receiving Ministry of Education approval.

Several College of Engineering faculty members have interacted professionally with engineers from these Chinese universities. These new agreements will open the door to student exchanges for the first time.

In May, the first NTU students were selected to participate in these exchange programs, which are scheduled to commence in the 2011 spring semester.
College of Management Receives AACSB Accreditation

On April 6, the Association to Advance Collegiate Schools of Business International announced that NTU’s College of Management has met the association’s high accreditation standards and been certified as an AACSB member. This achievement places the college among the world’s elite business schools, as less than 5% of business schools globally have received AACSB accreditation.

Founded in the US in 1916, AACSB is the longest standing and most authoritative international accrediting organization for business programs. Its core mission is to promote educational quality at global business schools through accreditation.

AACSB accreditation standards are stringent, and qualification puts an institution through a multi-year evaluation process of internal review, evaluation and adjustment as it works to meet AACSB’s 21 standards. These standards call for “a high quality teaching environment, a commitment to continuous improvement and curricula responsive to the needs of business.” The association requires accredited schools to undergo a peer review once every five years to ensure that they continue to meet its quality standards.

In working to qualify for AACSB accreditation, the College of Management formed an AACSB promotion team that compiled information on the college’s teaching and research achievements and resources and submitted annual reports and evaluation reports to AACSB.

In February, AACSB sent an evaluation team to visit the College of Management. The team conducted its final evaluation by examining the college’s self-evaluation reports, measuring its achievements in promoting international exchanges and observing the college’s current operations. The team also held talks with college faculty and international affairs personnel and met with students and alumni.

AACSB membership adds luster to the college’s rising international recognition. Eduniversal awarded the school its highest recognition of Five Palmes in 2008 and 2009. The college’s EMBA program also received 43rd and 40th place rankings respectively in the Financial Times EMBA Rankings in 2008 and 2009.

Researcher at Center for Condensed Matter Sciences Wins Executive Yuan Outstanding Technology Award

Dr. Juen-kai Wang, a research fellow at the NTU Center for Condensed Matter Sciences, along with Dr. Yuh-lin Wang, Director, Institute of Atomic and Molecular Sciences, Academia Sinica, and Professor Chi-hung Lin, Institute of Microbiology and Immunology, National Yang Ming University, won the Executive Yuan Outstanding Contribution in Science and Technology Award for 2009.

The team developed nanoparticle array-enhanced Raman spectroscopy for biomedical testing applications by using substrates based on silver nanoparticle arrays to enhance the sensitivity, uniformity and stability of Raman spectroscopy signals.

The technology can be used to evaluate bacteria types and the selection and testing of appropriate drugs to counter drug-resistant bacteria. Therefore, it has potential for clinical applications in preventing and treating bacterial infections.

To develop this nanoparticle array-enhanced Raman spectroscopy technology, the team applied basic science research findings in nanomaterial production, laser spectroscopy and biomedical technology to produce a practical biomedical testing platform. Their results were published in a leading academic journal and, as the technology promises tremendous economic potential, the team had it patented in the US.

Dr. Juen-kai Wang says, “It was the same as making movies when I was in university except that the scene became that of another world under the microscope. Everything under the lens immediately came alive. Combining one’s research and interests is a joyful thing. In the future, I will continue to throw my enthusiasm into my research in order to strive for more scientific achievements for the world.”
NTU Professors Earn National General Education Awards

The Ministry of Education, through its National General Education Teacher Award program, has presented certificates of merit and monetary awards to five university general education instructors who demonstrate excellence in teaching annually since 2007. NTU is proud the MOE has named NTU instructors as recipients each year since the award’s inception. In 2007, two NTU professors, Dean Grace Chu-fang Lo of the College of Life Science and Prof. Kuo-yen Wei of the Department of Geosciences, received this award. Then, in 2008, it was Prof. Chia-ling Mei of the Graduate Institute of Taiwan Literature, and, in 2009, Prof. Shau-chi Chi of the Department of Life Science.

Prof. Wei has taught for over twenty years. He uses a method of “systematic approach and comprehensive care” to help his students understand the planet Earth. For his general education course “The Evolution and Extinction of Species,” he has adopted a multifaceted teaching method that incorporate such activities as debates and field trips to allow his students to think about the Earth from different perspectives.

Dean Lo’s general education courses all center on her specialization in life science yet branch into other directly or indirectly related areas of knowledge as a means of expanding her students’ perspectives and outlooks.

Prof. Mei has over ten years of experience teaching general education courses at NTU. “History of Contemporary Literature” and “Contemporary Literature and Culture” are among the popular courses she has taught. Prof. Mei believes that while general education courses should aim to nurture citizens with deep and broad knowledge, they should also cultivate students’ personal feelings so they can be compassionate modern people who feel for others and don’t rely solely on rationality.

Prof. Chi has taught the general education course “Explorations of Life” for many years. For this course, she plans various themes, arranges student forums and activities led by teaching assistants, and offers teacher commentaries. Through these activities students gain opportunities to voice their viewpoints as well as hear those of others, and thereby deepen their understanding of the topics as well as reflect on diverse views on the same topic.

Rugby Team Grabs National Collegiate Championship

The NTU rugby team won each of its five matches to claim the rugby championship at this year’s National Collegiate Sports Meet, which was held at Chang Jung Christian University from April 24 to May 1. Boasting a history of over 60 years, NTU’s rugby team is one of the oldest sports teams at NTU, and the team fought hard for victory in order to uphold this long legacy.

The most remarkable thing about the team’s dominance in the tournament is that the majority of its players had never touched a rugby ball before enrolling at NTU. With their eyes always on the National Collegiate match, the team spent an entire year practicing and preparing. In this year’s finals, despite several players sustaining injuries, they insisted on playing to the end.
NTU'S MANDARIN AND ENGLISH LEARNERS MEET FOR WEEKLY EXCHANGES

Students from NTU's International Chinese Language Program and Department of Foreign Languages and Literatures (ICLP) have met for group language exchanges in the ICLP Lounge every Friday afternoon since March. The weekly meetings provide a structured yet casual setting in which these Mandarin Chinese and English learners can put the languages they learn into real practice.

All of the students at ICLP came to Taiwan with the objective of learning Mandarin. The program provides a range of resources and teachers to accommodate students at various levels. Indeed, by the time students leave the program, many of them are proficient enough in Mandarin to discuss such difficult topics as economics, politics, history, literature and science.

While ICLP aims to improve the Mandarin proficiency of its students, some students say that it's hard to make friends with locals. Moreover, while some students can understand the news or explain the background of a Tang Dynasty poem, they find it difficult to follow an ordinary conversation in Mandarin. And, in addition to the inevitable language barrier, there are also cultural differences, disparities in socializing habits and the self-consciousness that many feel when applying the language they learn in class to a real social situation. On top of this, the students at ICLP face a heavy work load, as do all students at NTU, Taiwan's premier university.

The group language exchange program was set up as a way to meet these challenges. Each week, a conversation topic is chosen. So far, the students have talked about socializing habits, shopping, childhood stories and jokes. Each meeting is divided into several activities. First, the students are divided into small groups of four to six people to facilitate personal interaction. Everyone in each group gets to know the others through a self-introduction in the language they study. Second is a warm-up activity based on an icebreaker or game in which students switch between English and Mandarin every five minutes. There are plenty of opportunities during the activity to pick up new idioms and vocabulary. Third is an open discussion during which a list of discussion questions is provided and students also switch between English and Mandarin every five minutes. Finally, the last ten minutes of the exchange are spent correcting mistakes and pronunciation and making notes of vocabulary and idioms from the activities.

Students enjoy these activities because they are relaxed and pressure-free. And, because the participants view the language exchanges as opportunities to learn, they are bold in trying new things, making mistakes and asking questions. The topics students choose are ones they would discuss with friends but that might not come up in a formal class.

Over the past several months, the students have gotten to know each other and have shared plenty of laughs and interesting conversations. As a sign of the success of the exchanges, the students often continue their conversations past the official meeting each time.
“Caribbean Callaloo” Showcases Sights and Sounds of the Islands

On April 24, the NTU Foreign Students Association sponsored a night of celebration called “Caribbean Callaloo” to share Caribbean culture, cuisine, heritage and music with the NTU family. The night was a rousing success, with Caribbean students from NTU and other universities in Taiwan displaying the vitality and charm of their region for nearly 250 students, faculty members and their guests.

The event’s honored guests included officials from the Ministry of Foreign Affairs and NTU as well as official representatives from Belize, Saint Kitts and Nevis, the Dominican Republic, the Solomon Islands and Haiti.

The energy of Caribbean culture could be felt from the moment the event began, as the MC set the tone with humor and a relaxed attitude. The night opened with an introduction to the nations, languages and history of the region, followed by an exciting program of music, dance, poetry, fashion and theater, ranging from the traditional to the modern. The energy of the song and dance performances spread to the audience and everyone gave themselves up to the irresistible urge to sway to the music.

The steelpan performance was without a doubt the most special of the musical performances. The pitched percussion instrument traditionally made from steel oil drums is the symbolic musical instrument of Saint Kitts and Nevis.

The fashion show revealed the influences of Spanish, Native American, European, Indian, Asian and African styles on the traditional and modern clothing of the region. Calico dresses were a major theme, and seemed to fill the room with the sunshine of the Caribbean.

The festivities climaxed with a carnival show. The sparkling costumes and large headdresses brought an immediate response of cheers and applause and were the perfect finale of a festive evening of Caribbean culture.

On April 3, the over 40 Vietnamese students at NTU invited fellow Vietnamese exchange students from around Taiwan to hold Vietnamese Cultural Day at NTU. The day of activities and exhibitions showcased the vibrant arts and culture of Vietnam. A Vietnamese Artcraft Exhibition was held in the Global Lounge and a flea market with Vietnamese handmade crafts and traditional snacks brightened Lu Ming Square. Other events were held in the First Activity Center, including a traditional art exhibition, a celebration and dance performance, a cultural artifacts exhibition, a multimedia exhibit and a Vietnamese cuisine exhibition.

The director and deputy director of the Vietnam Economic and Cultural Office in Taipei, Nguyen Ba Cu and Ho Quoc Phi, and NTU Deputy Dean of International Affairs Shang-hsien Hsieh were among the honored guests attending the celebration and dance performance. The Vietnamese students revealed their creativity by tying the event’s performances and dances together to tell a Vietnamese mythical tale. The event climaxed with the audience going onstage to join a bamboo pole dance.

The Vietnamese “non la” hat was the day’s centerpiece. The students explained there are conical hats and flat hats. The conical style is the most common while the flat hat is worn only in the south, especially by Vietnamese aborigines.

Handmade Vietnamese crafts are offered for sale at the Vietnamese Cultural Day flea market.
Contest Held for Students Returning from Abroad

The Office of International Affairs holds an annual student report and blog competition for NTU students who have returned to Taiwan after participating in study abroad programs as exchange or visiting students. The contest calls on students to share details of their experiences, including their preparations for going abroad, coursework, boarding conditions, campus life, and local foods and customs. The reports and blogs are archived online to preserve the memories and pass on the experiences of these students so that others can learn from their adventures overseas. This year, the OIA has added a photography category to bring a visual dimension to the contest.

On May 12, an awards ceremony was held for competition participants who were overseas during the 2008/2009 academic year. Prizes were presented to a total of 11 winners, three each in the report and blog categories and five in the photography category. All contest entries can be viewed at http://www.oia.ntu.edu.tw/.

The OIA also held the “2010/2011 NTU Outgoing Exchange/Visiting Students Pre-Departure Briefing” on the day of the award ceremony. In the briefing, students who have studied overseas as exchange and visiting students shared their experiences with students who are preparing to go abroad this fall.

The briefing also invited ten students from NTU’s overseas partner universities who are presently studying at NTU to introduce their universities. These students are from Arizona State University, the University of California, the State University of New York, the University of Illinois, Utrecht University and the University of Melbourne.

The number of NTU’s outgoing exchange and visiting students has hit a record high for the 2010/2011 academic year.
Laparoscopic operations in gynecology include benign hysterectomies, myomectomies, adnexal surgery and staging operations with lymph node dissections for early gynecologic cancer. Due to dramatic advances in equipment and skills, we have the option of total laparoscopic hysterectomies. Uterine fibroids are the most common cause as benign uterine tumors. The traditional primary treatment for symptomatic myomas is hysterectomy or myomectomy. Laparoscopic myomectomy is another alternative and advances in the technique are allowing it to replace traditional open surgery. However, laparoscopic myomectomy becomes time-consuming and difficult for extra-large symptomatic myomas. Moreover, the risk of intraoperative hemorrhaging has greatly increased the conversion to laparotomy.

Recently, we used the novel surgical technique of in situ morcellation while the myoma is attached to the uterus following hemorrhage control by subcapsular injection of vasopressin and/or bilateral ligation of the uterine arteries. We demonstrated that the in situ morcellation technique can easily and efficiently address the challenges of extra-large myomas, even those greater than 10 cm in mean diameter.

Because laparoscopic myomectomy with concurrent blocking of the uterine arteries is a novel technique in the treatment of uterine myomas, its impact on the blood flow profile of the uterus in the postoperative period was studied. Using a prospective three-dimensional power Doppler ultrasound study, we can illustrate that the only significant difference in patients having concurrent uterine artery ligation is a transient decrease of uterine artery flow in the first week after an operation, from which patients can recover in three months.

Importantly, as regards the preservation of uterine fertility, concurrent uterine artery ligation during laparoscopic myomectomy causes no additional decrease in myometrial perfusion. The healing of uterine scars after laparoscopic myomectomy has also been evaluated by three-dimensional power Doppler ultrasound. The adequate perfusions demonstrated by three-dimensional power Doppler ultrasound signify both good uterine scar healing and the dissolving of hematomas.

Technological advances have clearly made possible expansions to modern-day laparoscopy and minimally invasive surgery. These include high-intensity light sources, improved hand instrumentation and electrosurgical devices. Moreover, robotic telepresence technology has been incorporated into the gynecologic armamentarium, and offers several advantages over laparoscopy: a 3D vision system, wristed instrumentation and ergonomic positioning for the surgeon while performing surgical procedures. The main disadvantages of robotic surgery are the cost, the large size of the robot and console, limited availability within some health systems, lack of tactile feedback or haptics, and the need to train residents, attending surgeons and operating room personnel. Well-designed, prospective studies with well-defined long-term clinical outcomes are needed to fully assess the value of this new technology.
NTU Physicist Finds New Way to Improve Charging in Molecular Electronics

A central issue in molecular electronics and nano-science is how sensitively the electronic properties of a single molecule depend on its interactions with the outside world. The exact geometry of nano-contacts is expected to be important but few vivid illustrations are available. Dr. Larry Woei-wu Pai, an assistant research fellow at the NTU Center for Condensed Matter Sciences, in collaboration with scientists in Taiwan and Hong Kong, recently published an article in the prestigious Physical Review Letters (see Phys. Rev. Lett. 104, 036103, 2010) to demonstrate such an effect. They show that the well-known “soccer ball” molecule C60 can acquire either approximately three electrons (C603-) or a much smaller amount, depending on whether the molecule is tucked within a nano-pit or standing over a flat surface. To determine the charging of C60 and the exact interface geometry is by no means simple. Therefore, collaboration of scientists with expertise in different techniques such as scanning tunneling microscopy/spectroscopy, photoemission, quantitative low energy electron diffraction analysis and theory, was needed.

The intimate contact between the C60 and the Cu nano-pit is like mating a sphere to a rice bowl. This leads to an optimal charge state C603- that favors bulk C60 superconductivity — an outcome that has long been sought in C60 monolayers. By contrast, a flat Cu-C60 contact only leads to a small charge transfer. Previously, optimally doped C60 monolayers were often inhomogeneous and could only be synthesized with added chemical impurities such as alkali atoms. Dr. Pai’s finding thus highlights a new type of doping to manipulate molecules, which is “structural” instead of the traditional “chemical” doping. Such a doping-structure correlation is expected to impact the field of molecular electronics.
The NTU Art Festival provided financial and administrative support for student artists to create installation art for the Yuan-Hui Expo this May. The annual festival brightens the NTU campus for 20 days each May. But, this year, for the first time, the festival actively sponsored student art projects.

Two works of installation art were chosen for the student expo: a walking maze in the shape of a beetle designed and built by bioenvironmental engineering seniors Wu Yi-de and Lin Yi-ting, and a large colorful sculpture of a head created by student Cindy Kao, a computer science and business major.

Wu came up with the idea for the maze and Lin helped transform his idea into actual designs on paper. Four other students assisted them in building the wooden maze. Wu said he had built a maze in high school and wanted to do it again.

Titled the Yuan-Hui Maze, Lin said, “It symbolizes how all our paths converge at this university. Starting from this point, we will head out in different directions after graduation. During these four years, we all go through times of doubt and confusion, like walking through a maze; but, in the end, we reach the end of the tunnel, to see light and hope again.”

Dominating the front of the NTU Library, glowing with glitzy string lights, the maze beckoned from within flowing blue fabric. Approaching, students viewed a deceptively simple structure; on entering the maze, however, they revealed its magical world. Students said the experience was “a blast,” adding that it felt like “walking in the clouds.”

Kao’s sculpture occupied the lobby of the NTU Library. Its white head resembled Dum-dum, the dopey Easter Island head in the movie “Night at the Museum.” The head was adorned with a stream of leaves on iron wires, inspired by a poem Kao had composed one day on impulse.

“The poem describes my difficulty of finding the right words to express delicate feelings about touching events or feelings for the people I care about,” Kao said. “Despite all the different languages I’ve learned, ironically, I cannot find a way to express myself in this time of need.”

She inscribed messages in different languages on hundreds of small pieces of leaf-like papers that decreased in amount as they neared the mouth. Kao completed the work with the assistance of five volunteers she had recruited via the Internet.

College of Management Tops 60th Annual NTU Sports Meet

The 60th Annual NTU Sports Meet took place this spring when NTU’s famous azaleas were in bloom. A total of 2,635 students signed up to compete in a full range of categories this year. The meet commenced with an opening ceremony in which each team paraded around the sports track to display its team spirit. Competition was fierce and each student went all out in his or her respective events. In the end, it was the College of Management team that stood out above all others to claim the overall trophy.

Sports enthusiasm is high at NTU. At the 2009 National Collegiate Sports Meet, the university fielded competitors in a range of events, including swimming, table tennis, badminton, tennis, judo, taekwondo, archery, fencing, golf, gymnastics, and track and field events. Even though the competition included the nation’s physical education universities, NTU managed to come away with the second highest number of medals.
Quantum Science and Engineering Center Holds 2nd International Workshop

The NTU Center for Quantum Science and Engineering held its 2nd International Workshop on Atomic, Molecular and Optical Science and Frontier Technology on May 1. Twelve internationally renowned scientists from Taiwan and abroad were invited to share their research findings with nearly 100 domestic and international scholars and postgraduate students.

Speakers included Honorary Chair Professor S. H. Lin, Department of Applied Chemistry, National Chiao Tung University; former Vice President Kimihiko Hirao, University of Tokyo; Director Yia-chung Chang, Research Center for Applied Sciences, Academic Sinica; Director Andy Kung, Institute of Photonics Technologies, National Tsing-Hua University; and, Professor Henryk Arnold Witek, Department of Applied Chemistry, National Chiao Tung University.

CQSE Director Shih-i Chu opened the proceedings by affirming that, “Over the last ten years the development of numerous technologies has pointed us to a new era of science and engineering. The extremely rapid development of technology at the intersection of mathematics, physics and computation in particular has revealed that the counterintuitive and highly profound quantum mechanics can provide a massive and as yet undeveloped resource as well as revolutionary technical capabilities. The emerging topic is ‘controlling the quantum world.’ Between 1997 and 2010, for example, over ten scientists in fields related to quantum technology received Nobel Prizes. The development of quantum experimentation and theory is intimately related with the research and development of new precision instruments. This will also benefit society and the nation. From this we can see the utter importance of international exchanges for research breakthroughs in basic science as well as the development of information. CQSE was established for the purpose of advancing cutting-edge quantum theory and the development of all aspects of applied science. Inviting visiting experts in these fields and organizing international academic conferences is crucial for the promotion of exchanges between NTU and leading international organizations and scholars.”

In his talk on “Model of MALDI Mass Spectrometry,” Professor Lin discussed applications of laser analysis and strong field atomic, molecular and optical physical phenomena on proteins, metabolites and polymers. Also, Dr. Hirao discussed perspectives on remote calibration research in, “Recent Advances in Range-Separated Density Functional Theory.”
Teaching and Learning Center
Promoting Outcome-based Assessments

There is a classic comic strip in the education community that illustrates the relationship between teaching and learning: Billy says to Johnny, “I taught my dog to whistle!” Johnny approaches the dog, but doesn’t hear it whistling. He gives Billy a quizzical look, to which Billy responds, “I said I taught him to whistle. I didn’t say he learned how to whistle.”

Viewing this from the perspective of learning outcomes, though a teacher might make every effort to educate his or her students, if the students fail to learn in the end, then the teacher’s effort cannot be termed effective teaching.

In 2011, student learning outcome-based assessments will start to be used at the nation’s universities. Emphasis will be placed on the following issues: 1) What type of student does an institution wish to cultivate and what core abilities does it wish its students to possess? 2) What types of curricula will it use to teach targeted core abilities? 3) What types of assessment mechanisms will it establish to determine whether graduating students have achieved targeted core abilities? and 4) How will it assist students who have failed to achieve targeted core abilities?

This outcome-based teaching model guides an instructor in his or her curriculum planning. First, the instructor decides on clear teaching goals and determines which core abilities students should possess after completing the course (Why). Second, the instructor assesses students’ initial conditions (Who). Eliminating the gap between these two will depend on teaching activities (this includes the What and How of curriculum and teaching). Following the end of the course, the instructor assesses whether or not students have achieved the initially established goals (Whether or not) and how much they have achieved (How much).

Outcome-based assessment curriculum planning uses backward design. It takes the core abilities students are expected to possess after completing a course as a starting point and works backwards from there to determine corresponding teaching activities and assessment methods that will ensure students learn these core abilities. At the moment, each department at NTU has already drawn up curriculum maps and determined target core abilities and the core abilities that each course is intended to teach. However, they have yet to establish outcome-based assessment mechanisms.

With the nation preparing to adopt student learning outcome-based assessments at all universities in 2011, each NTU department has completed the formulation of its related goal establishment plans. However, the university is urging its departments to expeditiously complete the remaining work of establishing mechanisms for the assessment of how much students have achieved in terms of targeted core abilities after completing courses and when it comes time for graduation.
It is most important that the publications of a university publisher should have as their cores the fruits of academic research. National Taiwan University Press also takes this as the developmental goal for its publishing operations.

2009 was an important year in the development of NTU Press. Having obtained major support from the university, the publisher began a transformation. The direction of this transformation is the publication of high-quality academic books. There are three aspects of its implementation method. The first is the establishment of academic book series across a range of fields and the hiring of scholars and experts to serve as their chief editors. The second is that the scope of these series is completely open and that NTU Press welcomes scholars and experts in Taiwan and from abroad to submit book proposals. The third is that all academic book series are subjected to comprehensive peer reviews.

From 2009 to the present, NTU Press has achieved many great accomplishments in the publication of academic book series. 1) It has established book series in 19 different fields. Examples include the NTU Philosophy Series, Historiography Series, History of Chinese Thought Series, Interdisciplinary Law Series, and Studies in Austronesian Languages and Culture. 2) It has published 32 academic books of outstanding quality, including The Matricidal Culture: A History of the 20th-century American Popular Mentalité, Rediscovering the Chinese Lyrical Tradition, New Interpretations on the Text and Commentaries of Zhouyi and Complete Works of Yin Hai-guang. The Matricidal Culture: A History of the 20th-century American Popular Mentalité made it onto the best sellers list of Berkeley Books, Taiwan’s largest on-line bookstore, in the first season of 2010. It is a great encouragement that an academic book published by NTU Press has received such a welcome from the market.

We at NTU Press are deeply aware that it is not possible to build a university academic publishing brand overnight and that we must accumulate success in a long-term, persistent effort. NTU Press expects to publish more than 35 academic book series in 2010. Over the coming years, NTU Press will add to its catalogue of high-quality academic books one book at a time in order to fully develop its academic influence. Our English website is located at http://www.press.ntu.edu.tw/ntu_nube/english/index.asp and our email address is ntuprs@ntu.edu.tw.
Conference Held on Population Transformations and Social Development in Taiwan

In recent years, Taiwan has experienced rapid structural transformations in its population and social and economic development. The issues of an aging population, declining birthrate and population movements have stirred public concern and discussion. Problems associated with these issues will impact Taiwan's society in the near future.

To address these changes, NTU’s Population and Gender Studies Center together with the Population Association of Taiwan and the Center for Geographic Information Science at Academia Sinica held “Population Transformations and Social Development: the 2010 Annual Conference of the Population Association of Taiwan—A Joint Symposium on Social Development Indicators and Temporal and Spatial Population Studies Research” at NTU on April 29-30.

Scholars from Taiwan and abroad as well as government officials were invited to take part in this conference, the resulting academic exchanges are expected to have a positive effect on Taiwan’s national development. Moreover, conference organizers hope the conference has spurred these experts to carefully formulate response strategies to address the nation’s current and future population challenges.

The conference featured three main lectures and 49 oral paper presentations. In addition, due to time constraints and the volume of submitted papers, the organizers also set up an area with 26 poster presentations. This ensured that the research results of all conference participants were made available, and helped broaden the range of discussion.

The conference theme was “Population Transformations and Social Development.” Sub-topics included “Statistics and Survey Information on Social Development Policies,” “Population Composition and Estimation,” “Death Rate and Movement,” “National Health,” “Aging and the Elderly,” “Population Movements,” “Marriage and Family,” “Birth and Fertility,” “Population and Spatial Analysis” and “Transnational Migration.”

The two-day conference not only provided a forum for academic exchanges between population experts from Taiwan and abroad, it addressed new research topics and hosted exchanges of opinions on the research conclusions. Conference organizers were particularly pleased with the range of issues covered as well as the enthusiasm of the participants.

NTU Hosts 2010 International Conference on Queer Diaspora

The Women’s and Gender Research Program of the NTU Population and Gender Studies Center and the NTU College of Law hosted the 2010 International Conference on Queer Diaspora on June 11-12. The conference brought together numerous local and foreign scholars to present research papers and take part in plenary sessions and forums on issues of queerness and diaspora.

The topics of the first session were queer, transgender and sexuality, queer time and space, and theorizing queer. Themes addressed in the second session were race, diaspora and gender, queer, sexualities and mobility, and queer cinema. Session three topics were queer body and desire, queer family ethics and aesthetics, queer identities and discourses, and queer citizenship and sexuality. Session four addressed queer body and desire and queer, media and cultural consumption.

Keynote speaker Gayatri Gopinath of New York University presented the speech “Queer Re-Visions: Reframing the Region in Transnational Times.” Guest speakers included Anne Enke of the University of Wisconsin, who presented “Sisters Cities or Foils of Homonormative Liberalism? Trinidad, Colorado and Tehran, Iran, as the Unlikely Sex Change Capitals of the World,” and Pin-chia Feng of Taiwan’s National Chiao Tung University, who delivered the speech “Racial Passing and Gender Identity in Michelle Cliff’s Abeng and No Telephone to Heaven.”
NTU Library’s collection of rare Japanese thread-bound books is an invaluable resource for domestic and international academic research. In 1998, the library teamed up with Japanese scholars at Kyushu University to create a catalogue and publish these valuable tomes in order to increase their visibility and usage as source material for teaching and research. The library ultimately published *Selective Annotated Bibliography of Japanese Rare Books Collection of National Taiwan University Library* and *An Anthology of Nagasawa Tomoo’s Writing* in 2009. These are the fruits of NTU Library’s long-term collaboration with Kyushu University.

Based on the results of a survey conducted by the library and the Japanese university, 118 rare books were selected to be included in the bibliography. Prof. Ming-tsu Chen of the Department of Japanese Language and Literature served as the project’s chief editor. The main text of the bibliography is in Chinese and Japanese, and explanations are given of the meaning and significance of each book and its various editions in the history of literature.

In March, the library held a release ceremony for this magnificent bibliography, during which it presented the lecture “The Research Value of the NTU Library’s Collection of Japanese Thread-bond Books.”

Could a wild parade like Carnival in Brazil happen at NTU? Can a pen sing or a light change colors just at the touch of your hand? Would a 1,100 square foot outdoor maze suddenly appear on campus? The 16th NTU Art Festival made the impossible possible this year.

The NTU Art Festival 2010 outdid all previous art festivals at NTU by stretching the bounds of creativity in the areas of architecture, theater, light shows, technology and music. Concentrated near the NTU Library and First Student Activity Center, the festival’s student exhibits tapped the energy of NTU’s students by encouraging them to pull their heads out of their books and put their hands to creation.

**Art Creates Energy at NTU Art Festival 2010**