

# NTU



## NEWSLETTER

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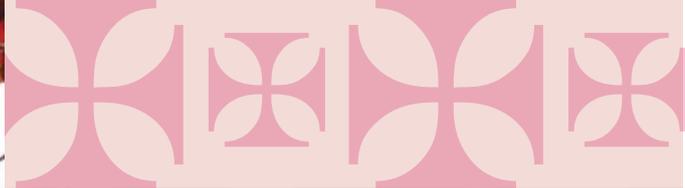
### Bravo to Outstanding NTU Researchers

International Students Learn Calligraphy

Noteworthy IEEE Recognition

Dedication to Climate Research

**Special Report**  
US Top Biologist Visits NTU



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## NTU AT A GLANCE

Large Night Heron Takes up Residence on Campus

## ✦ From the President's Office

Congratulations on graduating from NTU and moving on to new milestones in your lives. I would like to take this opportunity to express my most sincere hopes for each of you. You were fortunate to enter NTU one year after the beginning of the ministry of education's "Aim for Top University Project" and to graduate in its final year. You have consequently lived through a major part of the golden five years of NTU, a period when the university has enjoyed its most plentiful resources. You have enjoyed the finest general education courses, classical humanities courses and specialized courses, as well as benefited from new dormitories and facilities. Moreover, you have had more opportunities to visit NTU's partner universities as exchange students or to pursue service studies.

Even more importantly, you joined NTU in entering the ranks of the world's top 100 universities last year. It is due to Taiwanese society's expectations and support that NTU has received this precious opportunity for improvement. Therefore, you should apply the abilities you have cultivated over these four years to give back to society by promoting the happiness of humankind and solving the problems facing civilization. All of you have grown up during an era of globalization and rapidly developing technology and will face an ever-changing world after graduation. I look forward to you using the knowledge you have gained at NTU to take up the responsibilities of these times and to strive to honor your parents, your alma mater and your country. So, have courage in moving forward knowing that you have the best wishes of NTU.

李嗣涔

President  
Dr. Si-chen Lee

## Bruce Alberts, Former President of US National Academy of Sciences, Presents Talk on Biology's Past and Future at NTU

On May 20, Bruce Alberts, Former President of the US National Academy of Sciences, was invited to NTU to engage in academic exchange and to share what he has learned in his decades of experience in biological research. He gave a presentation on "Biology Past and Biology Future," with NTU President Lee serving as the moderator. The event was organized jointly by NTU's Office of International Affairs and the College of Life Science, and attracted more than 250 students and faculty members. Professor Alberts talked about his experience of promoting science education and encouraged young researchers to be creative in their pursuit of knowledge. In post-presentation discussions Prof. Alberts exchanged opinions with NTU's president, faculty and students on the subject of interdisciplinary learning with an eye to raising the level of NTU's excellent teaching and research still higher as well as strengthening student academic development.

The title of Prof. Alberts's presentation at NTU was "Biology Past and Biology Future: Where Have We Been and Where Are We Going?"

He first shared something about his personal learning experience with his audience. He did not lose heart when he failed to pass his doctorate the first time but learned from the setback. He urged researchers to try different strategies and reflect

often on what they are doing because this is the way to achieve breakthroughs. He then talked about the importance of cellular mechanisms. Researchers in the past tended to underestimate their complexity, but this gave more opportunity for later biologists to discover new phenomena.



He also shared his thoughts about editing biology text books.

He feels that text book revision is an extremely tough task because a poor text book doesn't only affect students, it lowers the knowledge level of teachers and can even be misleading; therefore, an editor must be very careful. He also talked about how innovation capability can be raised, including by the creation of a cooperative peripheral atmosphere, interaction in small labs and personal attitude and other key elements.

Prof. Bruce Alberts was invited to Taiwan on this occasion by Academia Sinica. He is an eminent biochemist who is currently Editor-in-Chief of *Science* and United States Science Envoy in which capacity he is making great efforts to improve science and math education. Prof. Alberts served as President of the National Academy of Sciences, (NAS) for 12 years. He is Professor Emeritus in the Department of Biochemistry and Biophysics at the University of California, San Francisco. He co-authored *The Molecular Biology of the Cell* and is renowned internationally.

## Liver Researcher Prof. Ding-shinn Chen Awarded Nikkei Asia Prize in Japan



**P**rof. Ding-shinn Chen, a distinguished chair professor of the NTU College of Medicine, received the Nikkei Asia Prize in Tokyo, Japan on May 19 in recognition of the outstanding contributions he and his colleagues made to the understanding and prevention of the hepatitis B and C viruses.

Prof. Ding-shinn Chen became a professor at the College of Medicine in 1983 and later served as the college dean from 2001 to 2007. Over the last 30 years, Prof. Chen has led medical teams at NTU in conducting world-class research into viral hepatitis, chronic liver disease and liver cancer. Chen was named an academican at Academia Sinica in 1992, a member of the Third World Academy of Sciences in 2001 and a foreign associate of the US National Academy of Sciences in 2005.

During the 1970s, Prof. Chen and his colleagues, using sensitive immunoassays, discovered a very high prevalence of persistent hepatitis B virus (HBV) infection in Taiwanese patients suffering from either chronic hepatitis, hepatic cirrhosis or hepatocellular carcinoma (HCC). In 1980, while inspecting tissue samples from liver cancer patients, Chen found that the DNA of the HBV

embeds itself in the host's genome. This confirmed on a molecular level the association between HBV and liver cancer, and stood as one of the earliest discoveries of its kind in the world. At the same time, the team verified in Taiwan that transmission of HBV by the mother is the primary cause of the occurrence of liver cancer.

Owing to his background as a clinical physician, Prof. Chen and his colleagues at the NTU Hospital endeavored to devise a method for the prevention of the HBV and assisted the government in promoting the plan. They formulated a mass HBV immunization program for Taiwan and, following three years of preparation, the Department of Health began vaccinating newborns for HBV in 1984. This earliest of all hepatitis B immunization programs in the world proved to be extremely successful. It effectively achieved the prevention of HBV infections in around 85% of children. Moreover, it was discovered that the rate of occurrence of liver cancer in children who had been immunized dropped by 75%.

Prof. Chen has also made outstanding contributions to the understanding of the hepatitis C virus (HCV). His team investigated the role HCV plays in the development of liver disease, and discovered that its importance is second only to HBV in Taiwan. They later cloned and sequenced the genome of the local HCV in Taiwan. Prof. Chen's work led to the screening of blood donors for HCV antibodies in Taiwan in 1992, and resulted in a remarkable reduction of post-transfusion HCV infection.

Prof. Chen's immunization program has lowered the percentage of HBV carriers and lowered the cancer risk for vaccinated people. It also stands out for proving for the first time that vaccinations can be used to prevent cancer.

## GICE Professors Host 2010 IEEE 71<sup>st</sup> Vehicular Technology Conference



College of Electrical Engineering and Computer Science Dean Lin-shan Lee (center) gives a brief presentation to distinguished delegates of the Vehicular Technology Society at VTC2010-Spring in May.

The 2010 IEEE 71<sup>st</sup> Vehicular Technology Conference: VTC2010-Spring was held at the Grand Hotel in Taipei from May 16 to 19. Eight professors from the NTU Graduate Institute of Communication Engineering served as chairs and co-chairs of this international conference, devoting their time and effort to making this year's meeting one of the best ever.

The conference brings together "individuals from academia, industry and government to discuss and exchange ideas in the fields

of mobile, wireless and vehicular technology."

In his role as general co-chair of VTC2010-Spring, GICE Director Kwang-cheng Chen invited the Vehicular Technology Society's Prof. Gerhard Fettweis and Prof. Gerd Ascheid to take part in the conference as keynote speakers.

Director Chen also invited other distinguished members of the Vehicular Technology Society to Taiwan for the conference. These eminent guests included

conference keynote speaker Prof. Lajos Hanzo, Dr. Tracy Fulghum, Prof. J. R. Cruz, Prof. David Haccoun, Prof. Tadashi Matsumoto, Mr. Don Hendrickson, Mr. Joe Ziomek, Track Co-chairs Prof. Guan-yong Liang and Prof. Xianbin Wang, and internationally renowned scholars Prof. Ian F. Akyildiz, Dr. Lin-nan Lee, Prof. Halim Yanikomeroglu and Prof. Pooi-yuen Kam.

The VTS delegates expressed genuine interest in NTU's achievements and the possibility of future cooperation.

## International Forest Biodiversity Symposium Held by NTU Experimental Forest

The College of Bio-Resources and Agriculture's Experimental Forest teamed up with governmental and academic organizations, including the National Science Council and Academia Sinica, in holding the "2010 International Symposium on Forest Biodiversity and Conservation" at the Situo Nature Education Area in the mountains of central Taiwan in June.

The symposium was focused on the current state of research in the areas of forest biodiversity and the conservation of plant biodiversity. One goal of the meeting was to develop a direction for sustainable development in Taiwan regarding forest biodiversity and conservation.

Five scholars from the United States, Singapore, Malaysia and Japan were invited to engage in



discussions and exchanges with 9 Taiwanese academics. In all, 145 people, including 12 from abroad and 133 from Taiwan, participated in the symposium.

# World Model United Nations 2010 Held in Taipei



President Ma Ying-jeou speaks during the opening ceremony of the World Model United Nations in Taipei in March.



Representatives from Lebanon perform a traditional dance on Culture Night.



The world's largest student UN simulation activity, the World Model United Nations, is staged jointly each year by the students of Harvard together with students from other universities around the world. Ever since they first participated in the event in 1998, the student members of NTU's World Model United Nations Club strove to bring the event to Taiwan. Their objective was achieved when the World Model United Nations was held in Taipei in March.

Around 1,800 representatives from more than 40 countries around the world gathered at Sun Yat-sen Memorial Hall for the opening ceremony at which the ROC President, the Taipei City mayor and NTU's President gave speeches to welcome and give encouragement to all of the attendees. After the joint declaration by the two chief organizers, one from Harvard and one from NTU, the five-day World Model United Nations formally commenced.

In the following four days, 22 committees met at the same time in Taipei International Convention Center and Taipei World Trade Center's No. 1 Hall to discuss



Participants engage in discussion during a meeting of the Disarmament and International Security Committee.

nuclear weapons, environmental protection, human rights and other important issues. By their cross-cultural exchanges of views, the representatives learned to see things from the different positions of other countries, and had the opportunity to hone their communication and negotiation abilities. Each representative had to follow the UN's procedural rules, speak for his or her country and then, in a situation that simulated a formal meeting of

the UN, write a draft resolution, after which a vote was taken to produce a resolution.

Besides simulating the UN's procedural operations, another aim of the activity is cultural exchange. Thus, the NTU organizers arranged various cultural activities and visits so the visitors from overseas could acquire an in-depth understanding of Taiwan. Places visited included Taipei Discovery, the National Palace Museum, Yinge Museum of Ceramics and

Tang Spa, giving the overseas participants a chance to learn about Taiwan's history culture and eat some delicious food.

The formal business element of the event came to a close after the names of the most outstanding representatives were announced. The representatives then set off on 2-3 days of travel during which, accompanied by their hosts, they had the chance to explore Taiwan, enjoy the beautiful scenery and feel the local spirit.



## NTU Laboratory Selected by OIE as Abalone Herpes-like Virus Infection Reference Laboratory

The annual congress of the OIE was held in Paris last week. In the aquaculture animal meeting, NTU's Aquaculture Pathology Lab, which is directed by Prof. Pen-heng Chang, was chosen to be the global reference laboratory for abalone herpes-like virus infection.

In recent years, Prof. Chang of NTU's Department of Veterinary Science has carried out research into *Haliotis diversicolor* pathological changes. This honor follows the affirmation from the OIE's experts won by Dr. Chu-fang Lo, the Dean of the NTU College of Life Science, whose lab was chosen by the OIE as a "shrimp white spot syndrome virus and baculovirus" reference lab.

The main task of OIE reference labs is to help solve scientific and technical problems related to the animal diseases that the organization monitors. The organization designates one reference lab for each disease, its function being provision of specialized knowledge about the disease and standardized diagnostic technology

The OIE has established 187 reference labs with 161 experts in 36 countries for 100 animal diseases and related problems. It also has 33 cooperation centers for 33 themes in 20 countries.

## Two NTU Professors Awarded Academia Sinica's 2010 Award

To encourage young researchers to publish excellent academic works, Academia Sinica established the "Young Researcher Award" in 2006. This year 15 people won the award, with two from NTU, Dr. Phone Lin, Department of Computer Science and Information Engineering, and Dr. Ying-er Kao, Department of Physics.



Dr. Lin received the award for his representative work "MEP: A Secure Mobile Electronic Payment Architecture Platform for Wireless Mobile Networks" which was well received by academia and industry alike.

Associate professor Kao's specialty is strongly correlated quantum systems.

One result of his research allows mature magnetic measuring technology to be used to more directly adjust the random field of matter and understand the effect of magnetic domains and foreign substances on each other.



## Congratulations! 11 NTU Graduates Elected as Academia Sinica Academicians in 28<sup>th</sup> Academicians' Election

The list of newly-elected academicians was announced by Academia Sinica on July 8. Of the 18 names, 11 were members of the NTU community. Dr. Yu Wang is a professor in NTU's Department of Chemistry, while Dr. Chung-shuan Chen is a professor in NTU's Department of Chemistry and Academia Sinica. The 11 were Dr. Teresa H. Meng, Dr. Yu Wang, Dr. Shih-chang Lee, and Dr. Ching-li Chai (division of math and sciences), Dr. Jerry Hsueh-ching Wang, Dr. Ming-er Tsai, Dr. Lu-hai Wang and Dr. Chung-shuan Chen (division of life sciences), Dr. I-tien Hsing, Dr. Dah-an Ho, and Dr. Shu-min Huang (division of humanities and social sciences).

## Student and Professor Win Best Paper Award at 2010 IEEE International Conference on Communications

Prof. Kwang-cheng Chen and student Shao-Communication Engineering were awarded International Conference on Communications Management for QoS Guarantees in Presented in Cape Town, South Africa time a paper from Taiwan has received this on communications and networks.



yu Lien of the NTU Graduate Institute of the Best Paper Award at the 2010 IEEE for their paper "Cognitive Radio Resource Autonomous Femtocell Networks." on May 25, the award marks the first recognition at the flagship IEEE conference

Existing solutions to cross-tier interference between macrocell and femtocells assign orthogonal radio resources in frequency and spatial domains to each network, but this is not feasible for dense femtocell deployments. In their paper, Chen and Lien propose leveraging cognitive radio technology to propose a cognitive radio resource management scheme for femtocells to mitigate cross-tier interference. Through the concept of effective capacity, the proposed radio resource management schemes are appropriately controlled to achieve required statistical delay guarantees while yielding an efficient radio resource utilization in femtocells.

## NTU Researcher Wins *IEEE Transactions on Advanced Packaging* Best Paper Award

Prof. Ruey-bei Wu, who leads the Electromagnetic Design of Advanced Packaging Laboratory at the Department of Electrical Engineering, has conducted research on electric performance of electronics packaging in Taiwan for more than 20 years. For his paper entitled "Fast methodology for determining eye-diagram characteristics of lossy transmission lines," which was published in the 2009 February Issue of *IEEE Transactions on Advanced Packaging* (pp. 175-183), Prof. Wu has been given a Best Paper Award by the journal.



Transmission lines are a basic element of eye-diagram is a key indicator of system methodology is developed to analyze the lines in modern digital systems. Two design to rapidly predict eye diagram characteristics versus skin-effect loss and dielectric loss, from which the maximally usable length can be acquired. The approach proposed in Wu's paper has created a new research direction for dealing with advanced designs for the improvement of the eye-diagram.

communication systems, and the performance. In Wu's paper, a fast signal integrity of lossy transmission graphs are analytically constructed

## ICLP Students Win Third Place in All-Taiwan Politics Cup Debate

The International Chinese Language Program's (ICLP) Chinese Debate Class, under the guidance of Meei-yuan Fan, participated in the 36th Annual All-Taiwan Politics Cup Debate this year. Team members Angel Ayala, Jeffrey Harsough, Wesley Hsu and Shirlene Yee faced the challenge of using Chinese as their second language to discuss Taiwanese politics as non-political science majors. The four students accomplished the near impossible by taking third place and demonstrating both outstanding skill in critical thinking and fluency in speaking Chinese.



The annual All-Taiwan Politics Cup Debate, held May 29 - 30, was hosted by National Taiwan University and National Chengchi University. Eleven teams from different universities participated in the contest. The topic of the debate was whether "Taiwan should sign the Economic Cooperation Framework Agreement (ECFA)." The students were the winners in all three rounds on the first day of the debate contest, and in one of three rounds on the following day, losing by only a slight margin.



# BACT 2010 SUMMER PROGRAM FINISHES ON A STRONG NOTE

The "Biodiversity, Agriculture and Culture of Taiwan 2010 Summer Program" reached new heights in terms of participating students this year. A group of 17 international students and 11 NTU students took part in this 4-week course from June 27 to July 24. The course was designed to promote academic and cultural exchange between students from NTU and abroad. Students were given the opportunity to learn first-hand about the biodiversity, agriculture and culture of Taiwan. In addition, they learned how to cooperate with their group members to conduct a project by sharing ideas, discussing and cooperating. Three faculty members of the College of Bioresources and Agriculture also gave valuable comments and assistance to the students to help them to establish a logical experimental design.

This year, we also had Dr. Grace Danao, a faculty member from University of Illinois at Urbana-Champaign, as an advisor and guide for the group. She gave valuable suggestions at the end of the course and made recommendations on how to improve future programs. The valuable lessons

📍 BACT summer program students enjoyed participating in outdoor activities and learned many new things on their field trips.

learned will be useful for next year's students.

Students attended lectures given by

NTU's faculty and embarked on field trips that were directly related to the lectures.

They were given the opportunity to see and touch real livestock, agricultural products and cultural handicraft items. Some of the activities included observing insects, identifying plants, observing land animals on trails and sea invertebrates in the intertidal zone, visiting temples, walking through an orchid garden, making tea at the Phoenix Tea Farm, picking peaches at the Meifeng Farm, and exploring the Sitou Experimental Forest.

The BACT summer program also has its own blog which served as a platform for students to share their everyday thoughts and reflections. Using the students' feedback forms and blog entries, we can adjust and improve the course to better fit student needs in the future.

📍 Students enjoyed bird watching in Sitou and were all very impressed by the great variety of bird species in Taiwan.

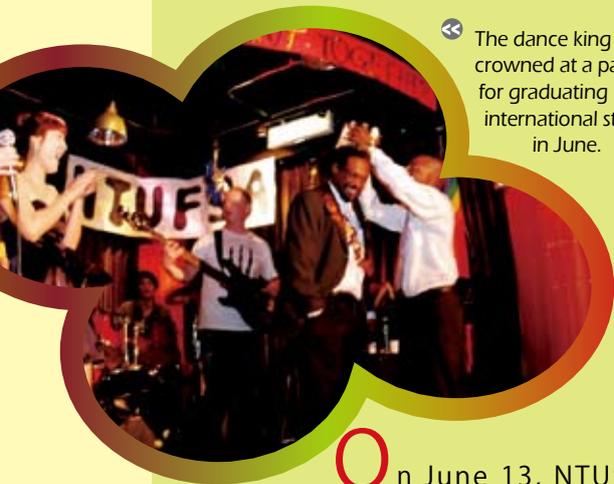


📍 Students took part in a frog observation activity at the Phoenix Education Center.



## NTU's International Students Hold Graduation Party

◀ The dance king is crowned at a party for graduating international students in June.



On June 13, NTU's international students held a graduation party to celebrate graduation and see off the students who were departing from NTU. The party was organized by the Foreign Students' Association (NTUFSA) under the supervision of the Office of International Affairs and sponsored by the Nicaraguan and Solomon Islands' embassies.

The party goes came from 40 different countries. The party dress code called for formal attire. The atmosphere was lively, boosted by the music of a live band and the presentation of prizes to the "dance king" and "dance queen." Everyone had an exciting and enjoyable time.

During the event, the new president of NTUFSA was announced: Aleris Frank of Sao Tome and Principe. Aleris graduated from an NTU undergraduate program this year and is a new master's student in the NTU College of Law. He said that for the next year at the helm of NTUFSA he aims to encourage NTU's international students to identify with the NTUFSA and also go off campus to link up with various quarters of Taiwanese society.

## 2010 International and Overseas Chinese Students Celebrate Dragon Boat Festival



Aiming to help international and overseas Chinese students better experience the Dragon Boat Festival, the Office of International Affairs and the Overseas Students Advising Division jointly sponsored a special Dragon Boat Festival event on June 15. Activities included an egg race, gifts and rice dumpling tasting with a variety of Chinese treats prepared by volunteers available. Over 200 students from around the world came out to join the festivities.

According to legend, at noon on Dragon Boat Festival day, it is possible to get eggs to stand up straight and ensure good luck for the coming year. An egg standing contest was held at 12:00 noon to test this theory. Twenty students tried their hand at getting their eggs to stand up.

After the whistle started the contest, the competitors quickly summoned up all their ingenuity and skill to attempt to get their eggs to stand up unassisted. To the delight of onlookers, the three fastest egg standers quickly emerged: Calvin Handoko from Indonesia won first place, Lu Lap On from Hong Kong won second and Nobuhiko Watanbe from Japan won third. The three students all received prizes, while all participating students received rice dumpling-shaped sachets.

After the egg standing contest ended, a feast began that set off another exciting frenzy of activity. Organizers, parents and volunteers carefully prepared a wonderful spread of food to introduce students to traditional foods and help them enjoy the Dragon Boat Festival. The students and teachers also took the opportunity to get to know one another better and enjoy the afternoon. Overall, the event was a success and there are plans to hold the event again next year.



◀ Students enjoy a festive banquet at NTU's Dragon Boat Festival event in June.

## ISIS and Calligraphy Club Hold Calligraphy Event for International Students



International students learn the basic principles of calligraphy. ➤

Calligraphy is a distinctive element of traditional Chinese culture and art. Unlike in some other places, Taiwan uses traditional characters in everyday life, which has created an environment beneficial to the continued evolution and development of calligraphy. This summer NTU's International Student Information Service (NTUISIS) and Calligraphy Club banded together to create a new event to celebrate calligraphy called "Calligraphize the Summer." Held in the Global Lounge, the activity was aimed to introduce students from around the world to the artistry and beauty of calligraphy and to help them experience it for themselves.

Even before the event got underway, many international students had gathered outside the Global Lounge to see what was afoot. Managing such a large group was a daunting yet exciting task for the organizing local students. At the start of the activity, the president of the Calligraphy Club and a faculty supervisor used English to introduce the culture of calligraphy for about half an hour.

The international students went on to learn about the Eight Principles of Yong and were invited to write the character for tiger. The faculty supervisor demonstrated the basic principles of

calligraphy and different methods so the students could appreciate and compare the differences. After that, the students were given the opportunity to practice writing on their own under the guidance of members of the Calligraphy Club. Some of the students chose to practice the Eight Principles of Yong while others chose to practice writing their own Chinese name or other interesting Chinese characters. Whatever their final choice, the practice time was filled with laughter and interaction.

Later, all of participants were asked to write the character for tiger in whatever style they preferred, and members of the calligraphy club judged their entries. At the end, the participants all took their decorated fans home to the sound of hearty applause. They came away with an interesting souvenir of practical use for the hot summer weather.

Overall, the calligraphy event was a splendid experience for the organizers and international participants alike. In the future, the International Student Information Service intends to sponsor more such events to help NTU's international students experience traditional Taiwanese and Chinese culture.

# NTU Students' All-in-One Video Decoder Chip Wins International Student Design Contest



▲ Prof. Liang-gee Chen (second from right), project leader Tzu-der Chuang (third from right) and other team members appear at ISSCC 2010.

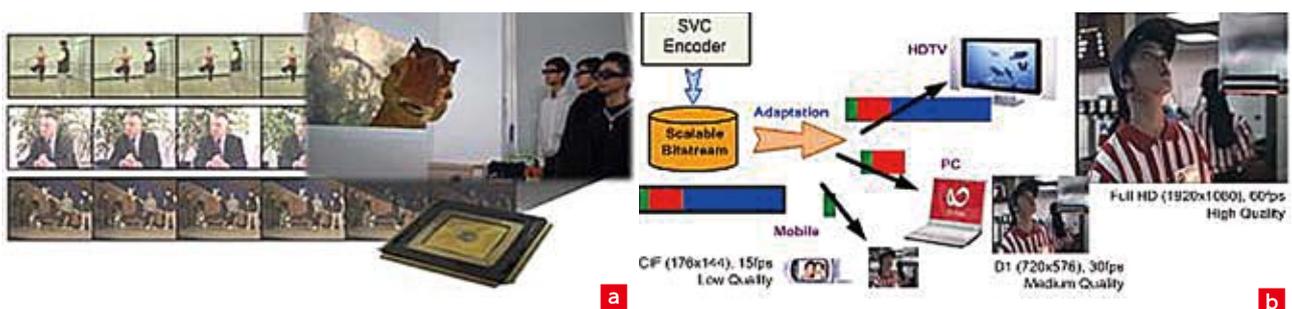
In this day and age, are you satisfied with a mobile phone that plays only MP3s? Do you want to watch 3D movies at home? How do you feel about network jamming? Isn't Full HD (1920×1080) video a bit too small, and Quad Full HD (4096×2160) video preferable? All of these demands and more can be met by the world's first 3D/Scalable/Quad Full-HD multi-function single chip video decoder developed by Prof. Liang-Gee Chen's research group at NTU. This chip was accepted by the leading IC design conference—the International Solid-State Circuits Conference (ISSCC)—in 2010, and selected as a winner of the DAC/ISSCC Student Design Contest of the 47th Design Automation Conference (DAC) as well.

The DAC/ISSCC Student Design Contest is an international student IC design competition held by two premier international conferences, ISSCC and DAC, in the research field of IC design and computer-aided design. Every year, DAC and ISSCC select the top six to nine best student chip designs to honor. This year, NTU once again won this competition through the work of the student team guided by Prof. Chen of the NTU Graduate Institute of Electronics Engineering. Student team members include Tzu-der Chuang, Pei-kuei Tsung, Pin-chih Lin, Lo-mei Chang, Tsung-chuan Ma, Yi-hau Chen, Yu-han Chen and Chuan Yung. The laboratory led by Prof. Chen has won this student design contest award three times in a row

and five times over the last 7 years. This remarkable achievement set a new record for ISSCC and DAC.

In addition to providing Quad Full HD video decoding with less than 100 mW of power consumption for high definition, high-quality applications, this decoder can decode multi-view video by supporting the Multi-view Video Coding (MVC) standard. With proper the 3D display, this chip allows the mobile phone or home cinema to display vivid 3D video.

With the ability to decode Scalable Video Coding (SVC) coded video, this chip provides temporal scalability for different video frame rates, spatial scalability for different video resolution, and quality scalability for various bitrate-quality trade-off points. The SVC encoded scalable bitstream contains the video information from low frame-rate, low resolution, low quality video to high frame rate, high resolution and high quality video. This bitstream can serve all kinds of users with proper adaptation. Therefore, the video source vendor won't have to encode several bitstreams for different kinds of users. Just one scalable bitstream is required. This chip can also be integrated into existing SoC platforms and provide various video-related applications.



▲ (a) This chip can support multi-view video decoding. With proper display technology, the user can get vivid 3D experience. (b) A Scenario of video broadcasting with SVC

# NTU Vet Performs Cardiac Catheterization to Treat Puppy with Rare Heart Abnormality

**C**or triatriatum dexter is a congenital heart structure abnormality rarely seen in small animals. At present, only a very few research papers in veterinary medicine have reported on cases of this abnormality, and even fewer have reported on the use of cardiac catheterization and balloon angioplasty to correct this problem.

Dr. Jung-wei Hung, a small animal heart specialist at the NTU Veterinary Hospital, recently succeeded in diagnosing Taiwan's first reported case of this rare disease, a four-month old puppy whose abdomen had swollen with accumulating fluid.

On June 28, joined by Dr. Jou-kou Wang and Dr. Ming-tai Lin, both



cardiologists in NTU Hospital's Department of Pediatrics, and supported by a team from the Veterinary Hospital, Dr. Hung successfully completed the first cardiac catheterization procedure for cor triatriatum dexter in a small animal in Taiwan.

The patient is still recovering and requires long-term observation.

However, this procedure has given the puppy the opportunity to be free of the cumbersome weight of the fluid in its swollen belly that resulted from a congenital structural abnormality and to run together with its little brothers and sisters on its way to a happy and healthy life.

Dr. Jou-kou Wang and his team from the NTU Hospital's Department of Pediatrics help the NTU Veterinary Hospital's Dr. Hung Jung-wei in preparing to perform heart catheterization on a sick puppy.



## STUDENTS PURSUE VARIETY OF INTERESTS AT SECOND STUDENT ACTIVITY CENTER



**B**y day, NTU's Second Activity Center may appear to be a drab Cinderella, only useful for finding something to eat. But at night, when the evening bell rings and the street lights are illuminated, the center known to students as erhuo, or the Second Activity Center, suddenly turns into a fairy tale princess, eagerly awaiting students to arrive and make merry.

The Second Activity Center houses offices and classrooms for many of NTU's numerous student clubs, and thus plays a crucial role in the lives of students and the vitality of the campus. In the evenings, students enter the center in groups and head off to their respective preferred clubs and interests. To see what attracts students in such numbers, you need only enter the front door.

As you enter the elevator in the Second Activity Center, you immediately hear students excitedly discussing club news or activities or perhaps exchanging gossip about teachers or club members. Every time the elevator door opens, one is pleasantly surprised. On some floors, one hears the sounds of musical instruments being tuned; on other floors, one sees piles of props from an upcoming play. Still other floors lure the visitor with the enticing aromas of students cooking or preparing food. The building is alive with activities that engage

all of the senses as students pursue their interests with boundless passion and vitality.

Emerging from the elevator, one feels like one is entering a bustling mall, as each classroom has bright windows and all kinds of creativity transpiring within. In the classrooms, students may be discussing traditional puppetry, exchanging the latest in makeup techniques, preparing to give speeches in English, arguing over the literary merits of Yukio Mishima, or even playing hide and seek.

The beauty of the Second Activity Center arises from the passionate activities of the students within. Each person in pursuit of his or her interests is able to make friends with similar interests, gain confidence and ability, and better enjoy his or her student life. Each generation follows the next with creative contributions and shared memories. Every night at 9:30, for example, the NTU school song plays over the radio. Usually, students continue doing whatever they are doing or discussing without listening to the lyrics. But, the student activities mixed with the traditional song provide an apt metaphor for the Second Activity Center. The energy of today keeps local traditions relevant and meaningful to our lives.

# NTU Press Creates New Publications to Improve Chinese Literary Climate

Academic research books make up the core of National Taiwan University Press lineup of publications, but literary publications are also a major feature. The publication ceremony held by NTU Press in February for *A Selected Collection of Modern Literature* and *Kenneth Hsien-yung Pai's World of the Arts and Humanities* was a grand event in the world of arts and culture. *A Selected Collection of Modern Literature* reached 6th and 7th on Reading Times' bestseller list in April and May, and ranked 10th on Bookzone's bestsellers list in June. Just as Kenneth Hsien-yung Pai proclaimed, "NTU's atmosphere of support for the arts and literature has always been strong, and I hope this atmosphere will continue." By publishing a succession of high-quality literary works to be passed on to future generations, NTU Press hopes to raise the ideal of a literary atmosphere at NTU, in Taiwan and around the greater Chinese speaking world.

NTU's strength in literary publishing stems primarily from the university's exceptional literary tradition. In an interview, Professor Ching-ming Ko spoke tirelessly of NTU's historical status in Taiwan's literary activities. From the era of Taipei Imperial University, De-shi Huang was a leading figure in new Taiwanese literature. Following World War Two, especially after the split caused by the Chinese civil war, a number of important intellectuals came to Taiwan. Such luminaries as Ssu-nien Fu and Ching-nung Tai who came from Peking University transmitted the new literary climate and academic traditions of the May Fourth Movement. In 1960, continuing the tradition of Hsia Tsi-an's *Literary Review*, a group of classmates from the Department of Foreign Languages and Literature and the South North Society, including Kenneth Hsien-yung Pai, founded the magazine *Modern Literature*. Later, students from the Department

Participants appear at a book release ceremony in February.

NTU Press is releasing books of literature to enhance literary climate at NTU.



of Chinese Literature's New Tide Society joined the magazine. NTU thus became a source of energy for activities in the world of letters, and nearly half of the literary world in Taiwan has come from NTU over the last 50 years. Many profoundly influential literary writers appear in the book *Evergreen Dreams* at NTU. NTU Press' publication of *A Collection of NTU Literary Award-Winning Works* also shows the publisher's support for literary activities at NTU as well as the free climate for composition surrounding NTU's students.

The great masters of the literary world assembled together for the publication ceremony for *A Selected Collection of Modern Literature* at Eslite Bookstore's Dunhua Branch on February 5. These included Sima Zhongyuan, Jo-hsi Chen, Hsiao-feng Chang, Li Ang, Jung Tse, Kuan Kuan and Ching Hsiang. *Want Daily* published an article on the event titled, "Republication of Selections from Hsien-yung Pai's *Modern Literature* Reinforces Chinese Literary History." The article presents an account of how these works influenced even mainland Chinese authors, and thus to a certain extent made up for the literary traditions China lost in 1949. NTU Press Director Chieh Hsiang says, "In the passing on of literature, *Modern Literature* served to convey the past



while pointing the way to the future. I hope the development of Chinese literature in Taiwan becomes a major feature at NTU Press."

NTU Press has begun two major literary series—the *Literature of Modernism Series* and *Studies in Chinese Literature Series*—with Professor Ching-ming Ko as the chief editor. For the *Literature of Modernism Series*, NTU Press is creating a bibliography of contemporary Chinese and foreign language literary works, criticism and theoretical research, and is publishing classic and representative works of modernist art and literature. Among these, *A Selected Collection from Modern Literature* has already been published. The university's publisher aims to adopt a broader vision for the research emphasis of the *Studies in Chinese Literature Series* to further the exploration and understanding of the entirety of the Chinese literary tradition. *Rediscovering the Chinese Lyrical Tradition* has been published in this series. In the audio/visual DVD series *NTU Literary Course*, NTU Press compiled recordings of the autobiographical lectures of important literary figures. These are important multimedia historical documents and teaching materials for contemporary Taiwanese literature. The publisher has already released *NTU Literary Course* DVDs in more than 20 categories, and has expanded their range to include the fields of aesthetics and the arts, examples of which are *Kenneth Hsien-yung Pai's World of the Arts and Humanities* and *Xing-jian Gao's Literature and Aesthetics*.

# New Center for Weather Climate and Disaster Research Seeks to Mitigate Natural Disasters



Here NTU Center for Weather Climate and Disaster Research (WCDR) was established on February 9, to host weather and climate research as well as natural disaster mitigation research. Prof. Hung-chi Kuo, NTU Department of Atmospheric Sciences, a MOE National Chair Professor, is the director of WCDR.

The WCDR was established to undertake the following:

- ◆ Integrate interdisciplinary human resources and facilities to conduct advanced, basic, and practical weather, climate and disaster mitigation research
- ◆ Host international conferences and workshops for information exchanges and nurture world-class disaster-prevention researchers
- ◆ Integrate interdisciplinary sciences for applying disaster-prevention technologies by transferring the fruits of WCDR's research to domestic companies and cooperating with other institutes or related industries
- ◆ Improve disaster-prevention technologies

The following is WCDR's organizational map:

### Organization Chart for WCDR



Some of WCDR's on-going projects include:

### 1. Disaster Prevention Service Group for Water Resources Agency

WCDR invites professors, research fellows and experts with expertise in weather-related disasters to join the Disaster-Prevention Service Group (DPSG) to promote interaction between academia and the public. DPSG assists the Water Resources Agency in monitoring typhoons and the evolution of heavy rains.

### 2. Investigation and Integrated Management of Potential Debris Flows in Taipei County

This project is focused on hill slope disaster prevention and protection. The team assists the Taipei County Government in investigating and managing areas in danger of landslides, debris flows and soil erosion.



## Center of Systems Biology Reorganizes for the Future

The Center of Systems Biology (CSB), originally named Center of Systems Biology and Bioinformatics (CSBB), was established at NTU in June 2006. The center brings a multidisciplinary group of scientists into an interactive environment and creates a cohesive research pipeline by facilitating hands-on research and consolidating isolated research nodes across the campus. Among these nodes are the core labs of genomics, transcriptomics, proteomics, metabolomics and molecular imaging as well as various bioinformatics and computational biology research groups located in different institutes/departments. Through a central planning committee, the director gathers intellectual input from the principle investigators of all participating core labs to develop several flagship projects that seed an eventual systems study.

The center also works closely with faculty members of the Graduate Genome and Systems Biology Degree program, established in 2010, and brings together experts from both NTU and the Academia Sinica to jointly offer discussion forums, seminars, courses and requisite graduate research training.

## NTU Hosts 2<sup>nd</sup> NTU/KAIST Workshop on Signal Integrity and EMC



The 2<sup>nd</sup> NTU/KAIST Workshop on Signal Integrity and EMC was held at NTU on July 6.

After the initial successful workshop was held by the NTU Graduate Institute of Communication Engineering and the Department of Electrical Engineering of Korea Advanced Institute of Science and Technology (KAIST) at KAIST in South Korea during the summer of 2009, it was a great honor that the second NTU/KAIST Workshop on Signal Integrity and EMC was held here at NTU on July 6.

Twelve research topics, including TSV design, eye diagram modeling, common-mode noise suppression, etc., were presented by Ph.D. program students from both sides. The workshop attracted not only students, but industry specialists, as well.

## NTU Selects Excellent Tutors for the 2009 Academic Year

Nine outstanding tutors were chosen from 51 nominees after two stages of selection, interviews by committee members and discussion.

Besides receiving a plaque in accordance with NTU's code for "teaching excellence," each of the tutors was presented with an NT\$100,000 reward. In addition, the Office of Student Affairs will also publish the stories of the excellent tutors in a book in the hope that the experiences of these excellent teachers will encourage teachers to learn from each other and create ever more positive learning curves.

The annual selection of excellent NTU tutors began in the 2006 academic year. Two books of their stories have already been published. The books show, from different angles and movingly, how the tutors teach by precept and example to guide students so they might have a more balanced development in learning and career. In the interviews with the winners, many tutors speak of how much they cherish their interaction with the students and insist that they are not just purveyors of knowledge; quite often, they gain inspiration for their teaching from their interaction with students.

The Office of Student Affairs is publishing the stories of NTU's outstanding tutors.



## Award Ceremony for 2<sup>nd</sup> Yau High School Mathematics Awards

The NTU Department of Mathematics was the venue for the award ceremony for the 2<sup>nd</sup> Yau High School Mathematics Awards on the morning of July 10. The awards were sponsored by the vice chairman of TSMC, Dr. F.C. Tseng, and the ceremony opened with remarks by NTU President Si-chen Lee, the President of National Tsing Hua University Lih-jun Chen and Chairman Tseng.

The Gold Award was won by Jin-jie Hu of Xinchu Senior High School (a student of Zhi-yang Hong). The judges held that Hu had exceptional geometric observational skills and was adept at analogy. He received the Gold Award because his proof was simple and elegant, in line with the spirit and preferred methodology of mathematics.

Besides presenting the winners with a certificate, a cash prize and a trophy, ceremony organizers stress the follow-up and nurturing of winning students. All the winning works will be featured in a book. For more information visit : [http://www.math.ntu.edu.tw/~shing\\_tung/](http://www.math.ntu.edu.tw/~shing_tung/)



## NTU Students “Learn by Doing”



NTU Art Festival is the university's largest art and cultural activity. Its purpose is to promote the development of art and culture on campus and to nurture the art and cultural sense of students and staff. This year the theme was “Tapping NTU's Artistic Energy.” All members of the NTU community were invited to get involved in organizing the festival.

During the festival planning stages, the organizing team emphasized integrating the various activities. The festival had four main elements: performance art, contemporary art, diverse music and independent film. The three-week-long festival attracted almost 8,000 visitors while the website and various promotional media received around 40,000 hits. The festival provided an environment that encouraged “learning by doing.” Most of the organizers had no formal art education, so learning activities were arranged. For example, the student members of the organizing team visited Taipei Fine Arts Museum, Museum of Contemporary Art Taipei, IT Park, etc. to learn from older and more experienced art and culture workers.

Educational development is an important task that takes time; nurturing art and culture is also a long-term endeavor. The 2010 NTU Art Festival was a good start, and it is hoped that the festival will continue to tap into the artistic energy of the NTU community in the years to come.

## Secrets for a Successful Life

Enterprise managers often say that the new graduates they recruit often are lacking in basic work etiquette and correct work attitude, shortcomings that affect their professional performance and development. In light of this, the Career Development Center of the NTU Office of Student Affairs began holding the “NTU Life Etiquette Classroom” during the spring semester in 2010. Combining NTU's and external resources, activities were held to nurture student etiquette in everyday life and at work.

The “NTU Life Etiquette Classroom” provides instruction to students in how to dress, speaking skills, international business etiquette, the habits of successful people and how to be competitive in the work place. It invites well-known professional trainers to speak about etiquette in the home, school and workplace. Also, diverse practical activities were designed and professional testing tools deployed so that the students engage in simulations and role plays for experiential learning.

Because it is anticipated that such activities would deliver real benefit to the students by preparing them for the work place after graduation, the Center plans to hold more such activities and make their contents and activities even more suited to the students' actual career needs.



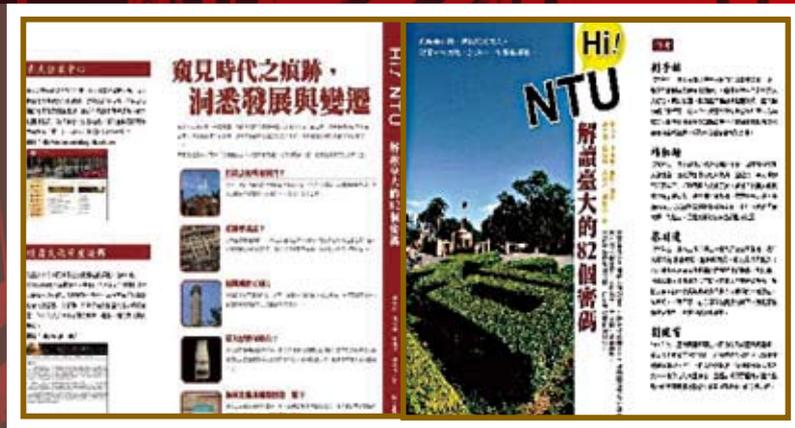
## Large Night Heron Takes up Residence on Campus

A large bird can often be seen on the NTU campus standing motionless in the grass, seemingly oblivious to everything around it. Due to its size and stillness, some may doubt that it is even a real animal until it begins tugging at a worm or suddenly turns its head in an odd fashion. From March to June, the bird may perch atop the roof of a building and bark out its husky mating call to an audience of teachers and students returning home at night.

Many people have begun to ask where this bird came from and why it has suddenly appeared on campus. The name of the mysterious bird is the night heron. The bird is native to Southeast Asia with only a few taking up residence in northern Taiwan. It has now become so common at NTU as to become a sort of unofficial school bird.

NTU School of Forestry and Resource Conservation Prof. Hsiao-wei Yuan and a group of natural wildlife conservation society students have formed a night heron watch group to learn more about the bird and have started a blog (<http://malayannightheron.blogspot.com>) to spread information about the bird along with a website for people to report night heron sightings (<http://ppt.cc/W9In>).





# Hi! NTU 82 Years of Inside Info

Do you know the best way to explore the NTU campus? Do you know which vantage point will give you the best photographs of the NTU Fu Bell and royal palms? Do you know when the always-in-short-supply National Taiwan University milk first became available and who it was reserved for in the beginning?

Is your curiosity piqued yet? If so, let *Hi! NTU 82 Years of Inside Info* slake your thirst for answers. *Hi! NTU 82 Years of Inside Info* reveals little-known details and trivia about NTU buildings, campus, history, community and much more through numerous stories and anecdotes. Learn all the ins and outs and gain a deeper understanding of the NTU campus and its rich history and traditions.



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