



Published by National Taiwan University  
Website: <http://ntuhighlights.ntu.edu.tw/>

# NTU August 2014 No. 43 HIGHLIGHTS

## President Yang Meets APRU Delegates in Australia

---

Groundbreaking Dark Matter  
Research

Innovative Young Scholar  
Awarded

USC Global Fellows Promote  
Cultural Understanding

Special Report  
**Ex-President Yu**

# CONTENTS



## *Special Report*

- 02** NTU Holds Memorial to Commemorating Life and Legacy of Former President Yu
- 04** NTU Class of '14 Graduates with Spirit of Tradition, Innovation, Excellence, and Dedication
- 05** After Midnight is the Best Time to Catch Campus' Aromatic Powder-Puff Trees

## *Honors*

- 06** Data Mining Professor Receives Young Scholar Innovation Award
- 07** Student Team Claims First and Third Prizes in International Information Retrieval Competition

## *International Corner*

- 08** USC Global Fellows Intern at OIA to Promote Understanding and Develop Partnership
- 10** NTU President Yang Attends APRU University Presidents Meeting in Australia
- 10** NTU Delegation Meets Partner Universities during World's Largest Higher Education Conference

## *Campus Scenes*

- 11** Museum of Zoology Houses Valuable Specimens from NTU's Japanese Days

## *Research Achievements*

- 12** Groundbreaking Dark Matter Research Makes Cover of International Physics Journal
- 13** Advanced Noninvasive Optical Probe Provides Subcellular 3D Images of Human Skin Cells

## *Teaching and Learning*

- 14** 2014 BACT Summer Program Ends on a High Note
- 15** Star Plan Parents Day and Freshmen Orientation Draws Big Turnout of Families and Students
- 16** Symposium Inspires Youth to "Stand Up, Stand Out" to Changing, Challenging World

## *NTU at a Glance*

Little Known Document Tells NTU's Story as National Taipei University



## From Dean of Academic Affairs

RONG-HUAY JUANG



As a new semester approaches, NTU is introducing a basic subject certification testing program as a new means of helping students transition smoothly from high school to university. Students who test out of a subject by earning basic subject certification before enrolling this August will receive university credits without being required to take that subject.

Allowing students to test out of basic subjects will provide them with more time to broaden their knowledge by enrolling in courses in fields other than their majors. Students will also be able to take general education and interdisciplinary elective courses with the freedom of their extra time. The certification program is open to all students regardless of age or education, and currently, it covers six subjects: Freshman English, Calculus, General Physics, General Chemistry, General Biology, and Principles of Economics. We invite students to visit our basic subject certification testing website (<http://apc.aca.ntu.edu.tw/fcc/index.aspx>), where they can access our course syllabi and reading lists as well as take online courses on their own.

As this program takes an online form, I wish also to point out that the application of educational technologies is gaining importance through the concept of learner autonomy. For its part, NTU shares its educational resources through open online learning platforms such as OpenCourseWare and Coursera. NTU has also begun to aggressively promote the innovative learning approaches of the flipped classrooms.

In flipped classrooms, professors place learning autonomy in the hands of their students. By taking advantage of online learning platforms to guide students in self-study prior to classes, the flipped classroom allows professors to devote class time to helping students develop their discourse and argument abilities.

Flipped classrooms can also help reduce poor learning outcomes caused by the long length of academic semesters at NTU. For instance, a professor will have the option to pause classes temporarily for a week or two in the middle of the semester to allow students to study online material at home, and later resume classes for in-depth discussions. NTU professors are expected to begin applying this approach as early as September.

In addition to the flipped classroom, the Office of Academic Affairs is also promoting an innovative and interdisciplinary series of jointly-taught courses. In these courses, professors from different fields work together to design innovative curricula and attend each class as a team in order to jointly present lectures and lead class discussions. Jointly-taught courses engage students in discussions spanning multiple fields in hopes of inspiring more creative thinking.



# NTU HOLDS MEMORIAL TO COMMEMORATING LIFE AND LEGACY OF FORMER PRESIDENT YU



# Special Report

The faculty, staff, and students of NTU have lost a legend and greatly loved icon as former NTU President Chao-Chung Yu passed away at the age of 100 on May 12, 2014. A memorial was held in his honor at NTU on June 18, at which Yu's family, friends, and students gathered to celebrate the former NTU president's life, legacy, and passion as well as the contributions he made to the nation's educational system.



Former President Yu led the university from 1981 to 1984. Before serving as president, he was a professor in the Department Civil Engineering, where he also served as department chairman. He was later appointed dean of the College of Engineering.

Former President Yu was known for his hearty personality as well as his insistence on treating all around

him like family. While each speaker at the service, some his peers and others his students, shared different memories of the late president, their stories all contained a common theme — that of enjoying the privilege of receiving the friendship that he generously extended to them despite his status as president of the most prestigious university in Taiwan.

During his presidency, former President Yu initiated the reorganization of NTU Hospital, formulated plans for the establishment of the College

of Management, and laid out a blueprint for the future development of the NTU campus. Yu was also responsible for establishing the university emblem, which he believed served as a symbol of our school as well as a reminder of the NTU motto of "Integrity, Diligence, Fidelity, and Compassion."

Former President Yu was also a leader of great vision. While he insisted on maintaining academic freedom and neutrality on the NTU campus, he also led the university in becoming the first institution of higher education in Taiwan to establish a general education curriculum so that students would be equipped with a breadth of knowledge across a diversity of fields. That NTU curriculum later became the prototype for the Ministry of Education's General Education program, which was ultimately adopted by other universities in Taiwan.



# NTU CLASS OF '14 GRADUATES WITH SPIRIT OF TRADITION, INNOVATION, EXCELLENCE, AND DEDICATION

**O**n June 7, NTU President Pan-Chyr Yang led members of NTU's Class of 2014 in making a final pilgrimage around the campus before they were to receive their diplomas and begin celebrating the commencement of the new lives that lie ahead. Emphasizing the spirit of tradition, innovation, excellence, and dedication, this year's graduation ceremony sought to encourage the graduating students to take on the responsibility of leading society to a brighter and more sustainable future.

During his address at the ceremony, President Yang expressed his hopes that the nearly 10,000 graduating NTU students give free reign to their creativity, ambition, and sense of altruism in caring for the nation so they can build a bright future for themselves while making meaningful contributions to the world. President Yang also encouraged the Class of 2014 to carry forward NTU's emphasis on innovation as they build their careers and to continue to inspire change in society.

NTU alumnus and high-tech tycoon Jonney Shih, the chairperson of Taiwan's Asustek Computer Inc., drew on his 50-years of experience to give inspiration to the graduating class during his commencement address. Chairperson Shih encouraged the students to stay passionate and always hungry for knowledge. He also reminded them to develop multiple talents to maintain their competitiveness and to never give up in their pursuit of excellence. Concluding his address with a note of encouragement for the members of the Class of 2014, Shih urged them to treat each and every life encounter as a path toward the achievement of ultimate clarity and wisdom.





## AFTER MIDNIGHT IS THE BEST TIME TO CATCH CAMPUS' AROMATIC POWDER-PUFF TREES

Do you know that besides the azalea and other more widely recognized plants and flowers, NTU campus is home to the native *Barringtonia racemosa* flower tree, also known as the powder-puff tree? During the summer, the nocturnal blossoms of our powder-puff trees can be spotted all around campus, painting picturesque visions of fireworks lighting up the summer nights.

*Barringtonia racemosa* flowers are usually white or pink and bloom in pendulous sprays during their flowering season. Blooming simultaneously, these powder-puff trees fill the eye with explosions of pink, white and green while exuding an aromatic and intoxicating fragrance.

But what is it that gives these nighttime flowers their fascinating aroma?

Equipped with scientific training and profound curiosity, a group of experts from NTU's School of Forestry and Resource Conservation set out to find the answer.

According to Distinguished Professor Shang-Tzen Chang and graduate student Qun-Ya Lin, the flowers begin to bloom around three to four o'clock in the afternoon, and usually reach full bloom between seven and eight in the evening. The blossoms then gradually begin to wilt after six o'clock the following morning.

The team concluded that the best time to view the *Barringtonia racemosa* flowers is during the first hour or so after midnight.

To explain the flower's mysterious aroma, the group designed an in situ sampling device to capture and monitor the flower's fragrance hourly. Analysis of the samples showed that the aromatic emissions, whose main composition includes linalool, phenylacetaldehyde, germacrene D and (E,E)- $\alpha$ -farnesene, peak between 23:00 and 02:00. Further analysis revealed that linalool and phenylacetaldehyde are the main sources of the flower's aroma, and are exuded as a means of survival and reproduction. The team also found that, besides smelling pleasant, the sweet, rich and unique *Barringtonia racemosa* fragrance is calming and helps relieve tension.

If on a late night this summer you happen upon a powder-puff tree in full bloom, we hope you will take the time to enjoy its bursting blossoms and aromatic scent during its brief moment of glory.





# DATA MINING PROFESSOR RECEIVES YOUNG SCHOLAR INNOVATION AWARD

**P**rof. Shou-De Lin of the Department of Computer Science and Information Engineering and Graduate Institute of Networking and Multimedia has received the Young Scholar Innovation Award from the Foundation for the Advancement of Outstanding Scholarship. The foundation established the award with the aim of encouraging young scholars under the age of 40 to develop the courage to innovate as well as pursue probing, long-term research projects. This is the second year that the foundation has presented this award. (Applicants are required to submit a report introducing their innovative and impactful research concept.)

In his report, titled "Bridging Machine Learning Theory and Practice for Big Data Analytics," Prof. Lin presented an innovative data mining research approach that can be used to process massive volumes of data. Prof. Lin's concepts cover the following key topics: designing mechanisms capable of operating machine learning modules in distributed environments; processing massive volumes of noisy or untagged heterogeneous data from different sources; processing data volumes that exceed storage capacity; as well as efficiently identifying the optimal data mining models for specific applications, developing strategies for correspondent adjustment parameters, and devising machine learning integration modules that achieve greater scope.

Since joining the faculty of the Department of Computer Science and Information Engineering in 2007, Prof. Lin has devoted his research to

data analysis and data mining. His research findings have also been applied to the study of social network data analysis and the processing of natural language. Prof. Lin has won multiple international awards, including research awards from Google, Microsoft, and the Asian Office of Aerospace Research and Development (a field office of the United States Air Force Office of Scientific Research), as well as numerous best paper awards at international conferences. Prof. Lin has also transferred to industry many of the technologies behind his social network data mining tools and recommendation system modules.

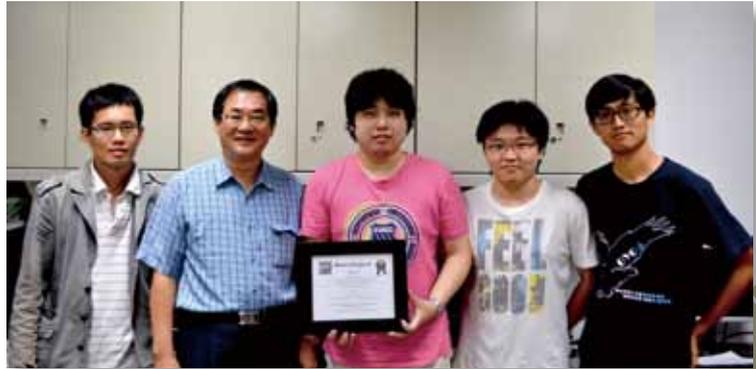
In this era of big data, Prof. Lin's innovative research is not only garnering attention within the academic community, his research focuses are fundamental to the urgent needs of the competitive world of business enterprise.



*A student team from the Natural Language Processing Laboratory claimed the first- and third-place prizes in competitions at the ACM SIGIR 2014 Entity Recognition and Disambiguation Challenge in early July.*

Organized by Google and Microsoft, the competitions challenge teams from around the world to design entity recognition and disambiguation (ERD) systems by measuring the competitors' abilities to rapidly recognize mentions of entities in a given text, disambiguate them to determine their real meanings, and link them to the entities in a massive knowledge base. Above all, the competition stands as the ultimate test of the speed and accuracy which a team designed ERD system may attain.

Led by Prof. Hsin-Hsi Chen of the Department of Computer Science and Information Engineering, the NTUNLP team won first place in the Short Track competition and took third place in the Long Track challenge. The Short Track competition challenged teams to



▲ The Natural Language Processing Laboratory's winning NTUNLP team (from left to right, Ang-Ying Lee, Prof. Hsin-Hsi Chen, Yan-Bing Chiou, Chih-Chieh Shao, and Sheng-Lun Wei) shows off one of its prizes from the Entity Recognition and Disambiguation Challenge.

## Student Team Claims First and Third Prizes in International Information Retrieval Competition

analyze short texts, such as the search queries presented to Google and Microsoft's search engines, while the Long Track competition focused mainly on web documents, which forced the teams to deal with a wide diversity of writing styles.

The ERD Challenge took place entirely online. During the dry run stage of the competitions, teams were permitted to try out different methods of coding. In the formal run stage, however, the organizers sent information to each team's designated server for analysis. In the case where a team exceeded the time limit for processing a particular entity, that entity was considered unsuccessful, and the team was not given a second chance on that entity. In other words, competing teams were required to design ERD systems that were robust, fast, and accurate.

The NTU team's winning performance demonstrates the thoroughness and effectiveness of the training that students of the Department of Computer Science and Information Engineering and Graduate Institute of Networking and Multimedia receive in both theory and practical applications in massive data analysis, natural language processing, systems integration, and programming and design.

The Annual International ACM SIGIR Conference on Research and Development in Information Retrieval is among the most prestigious international conferences in computer science and information retrieval in the world. ACM SIGIR 2014, the organization's 37th annual conference, was held in Gold Coast, Australia from July 6-11.



▲ The USC Global Fellows who performed two-month internships at the Office of International Affairs this summer share a moment together.

*This summer, the Office of International Affairs hosted four undergraduate students from the University of Southern California. These USC Trojans came to NTU through USC's highly-selective Global Fellows Program in order to perform two-month internships in three of the OIA's administrative departments.*

Lisa Gerstley, a junior studying Law, History and Culture with a minor in Business Administration, fulfilled her internship working in the International Students Division, while Demetrius Reagans, an International Relations and East Asian Studies student, and Melina Sutton, an American Studies student (both seniors), worked in the International Programs Division. Brandon Cheung, a junior studying Political Science, interned with the OIA's Center for International Education.

USC's Global Fellows program seeks to increase and promote understanding of Asian culture among American undergraduates by providing first-hand, comprehensive exposure to overseas work environments.

The OIA was delighted to welcome these bright and driven individuals to Taiwan. Supporting USC's Global Fellows program exemplifies NTU's vision of pursuing academic excellence through a commitment to further develop existing international partnerships and create greater global education opportunities. The OIA looks forward to hosting more USC Global Fellows in the near future.

Below, the OIA's USC interns each share in their own words their impressions of NTU, the OIA, and Taiwan.

**Lisa Gerstley**

Before my internship, I had never been to Asia. Although I had studied Chinese for three semesters, I was nervous about the language change, culture shock, and overall unfamiliarity of moving to an entirely new place. Fortunately for me, I was welcomed into a friendly, vibrant community at the OIA. For example, my coworkers took me out to lunch every day my first week and showed me

## USC Global Fellows Intern at OIA to Promote Understanding and Develop Partnership

where I could find vegetarian food. From that first week, I enjoyed many meals, laughs, and conversations at the OIA.

In addition to helping my coworkers and supervisors write English emails and announcements, translating Chinese documents, and assisting with the OIA's new website, I also had the opportunity to work independently on a research project. My individual research project involved exploring global trends in student mobility, and I shared this information in a presentation. I also shared my experiences as an American college student in Taipei during a presentation to NTU student volunteers. Finally, I worked with the other USC interns to deliver a presentation about how international offices are structured at universities around the world.

### Demetrius Reagans

Working at NTU was a rewarding experience. We were each given individual and group projects to work on during our two-month internships. My individual project was on MOOCs (Massive Open Online Courses).

Our group projects were more focused on how different schools handle their international affairs in different regions of the world. Surprisingly, there are many different ways in which universities choose to handle this, but I personally like how NTU organizes theirs. By having one office of international affairs with three departments they are able to keep everything within the office, thus eliminating any confusion or unnecessary complications.

Besides the projects I had to work on, I would say that the relationships I have made with the people in the OIA are also really meaningful to me. Everyone in the office is so nice and caring, yet they are also hard working people who expect nothing but the best from you. I really appreciate the time and energy they put into hosting us as interns.

### Melina Sutton

Being a Global Fellow allowed me to have a rich cultural, professional, and personal experience that I will always remember. During my time interning, all of the projects I was able to work on taught me the ins and outs of international higher education, the culture of Taipei, as well as transferrable skills that go beyond higher education. I could not be more thankful to the people at NTU for being so friendly.

This program was much more than an internship. Though I was abroad, I actually gained a deeper understanding of my own culture as well as insight into USC's initiatives in an international higher education context. The overall challenge of living and working in another country gave purpose to what it means to be a global citizen and a representative of my country and my university. This program may only last eight weeks, but it cultivated within me a curiosity to explore new cultures and experiences that will last a lifetime.

### Brandon Cheung

It was a privilege to partake in the work the OIA does in broadening NTU's scope of relevance and deepening its influence in the global academic arena. Coming from a university that does not have a singular, consolidated OIA, I gained an appreciation for the office's multifaceted vision, and for the staff that executes that vision so masterfully.

The people who work in the OIA are truly what made NTU such a great place for me to learn. I was always supported in each task I was assigned, yet also felt entrusted with a significant amount of autonomy and individual responsibility. Between the numerous long-term research projects we presented, to the communications and linguistics assistance we provided on a daily basis, I finished my internship at NTU with not only a feeling of accomplishment, but also a greater substantive understanding of the importance of globalizing education and what that complex endeavor entails.

*\*The content above has been reduced for the print publication. For their full remarks, please visit our website at <http://homepage.ntu.edu.tw/~ntunewsletter/index43.html>*





# NTU President Yang Attends APRU University Presidents Meeting in Australia

**N**TU President Pan-Chyr Yang traveled to Canberra, Australia to take part in the 18th Annual Presidents Meeting of the Association of Pacific Rim Universities at Australian National University during June 24-25. This year's meeting drew the attendance of 19 university presidents and 62 delegates from 33 member universities. Dean for International Affairs Luisa Shu-Ying Chang and Office of International Affairs staff member IlunTeng accompanied President Yang to the meeting.

During a panel on higher education, President Yang's delegation learned about Australia's innovative New Colombo Plan under which Australian university students are offered scholarships and grants to study at leading Asian universities and participate in business internships in Asia.

Yonsei University, the University of New South Wales, and University of Hawaii at Manoa formally joined the APRU during the meeting this year, bringing the number of APRU member universities to 45. During the event, the organization also saw a change in the APRU chairmanship as outgoing Chancellor Henry T. Yang of the University of California, Santa Barbara formally passed the baton to President C. L. Max Nikias of the University of Southern California.

Following the Presidents Meeting, Dean Chang and the OIA's Ms. Teng visited the University of New South Wales and the University of Sydney where they met with the universities' chief administrators and international affairs officials to discuss a variety of potential avenues for cooperation.

## NTU Delegation Meets Partner Universities during World's Largest Higher Education Conference



**A**ssociate Dean for International Affairs J. Bruce H. Shyu and two colleagues from the Office of International Affairs attended the 2014 Annual Conference of the NAFSA: Association of International Educators in San Diego, California during May 27 - 30. NTU

was the only Taiwanese university selected to take part in the meeting's poster session, and Associate Dean Shyu and his team took the opportunity to introduce the more than 50 successful dual degree programs NTU has established with dozens of its partner universities around the world.

The NAFSA Annual Conference is the world's largest annual meeting on higher education. This year's conference attracted more than 9,000 professionals working in higher education around the globe.

On the sidelines of the conference, the NTU delegation arranged meetings with many of her international partner universities to discuss in person such issues as expanding student exchanges, promoting summer programs, and establishing faculty exchanges. Among the partners with which Shyu held discussions were the University of Toronto, Rutgers University, University of Oregon, National Autonomous University of Mexico, University of Bonn, Kyoto University, and Australian National University.

With the assistance of the Foundation for International Cooperation in Higher Education of Taiwan, the NTU delegation was joined by more than 20 other Taiwanese universities in participating in the conference.

During their visit, Shyu and his team also took the opportunity to visit NTU sister schools, University of California, Los Angeles and California Institute of Technology.



## Museum of Zoology Houses Valuable Specimens from NTU's Japanese Days

NTU's Department of Zoology and Department of Botany played influential roles in the history of biological research in Taiwan and East Asia for many decades before the two were merged as the Department of Life Science in 2003. Over the years, the departments' respective Zoological Specimens Hall and Botanical Specimens Hall accumulated thousands of plant and animal specimens, many of which were collected as far back as the time of the university's establishment as Taihoku Imperial University in 1928.

To this day, the Department of Life Science has undertaken the task of preserving and organizing these valuable specimens, ensuring that they remain viable research resources. Moreover, the two specimen halls joined the NTU Museums Group, which includes a total of ten museums, as the Museum of Zoology and Herbarium of NTU in 2007, and has since been dedicated to the promotion of their rich collections.

During the Japanese rule, the colonial government used Taihoku Imperial University as a base to actively develop its knowledge of and interest in not just Taiwan but also

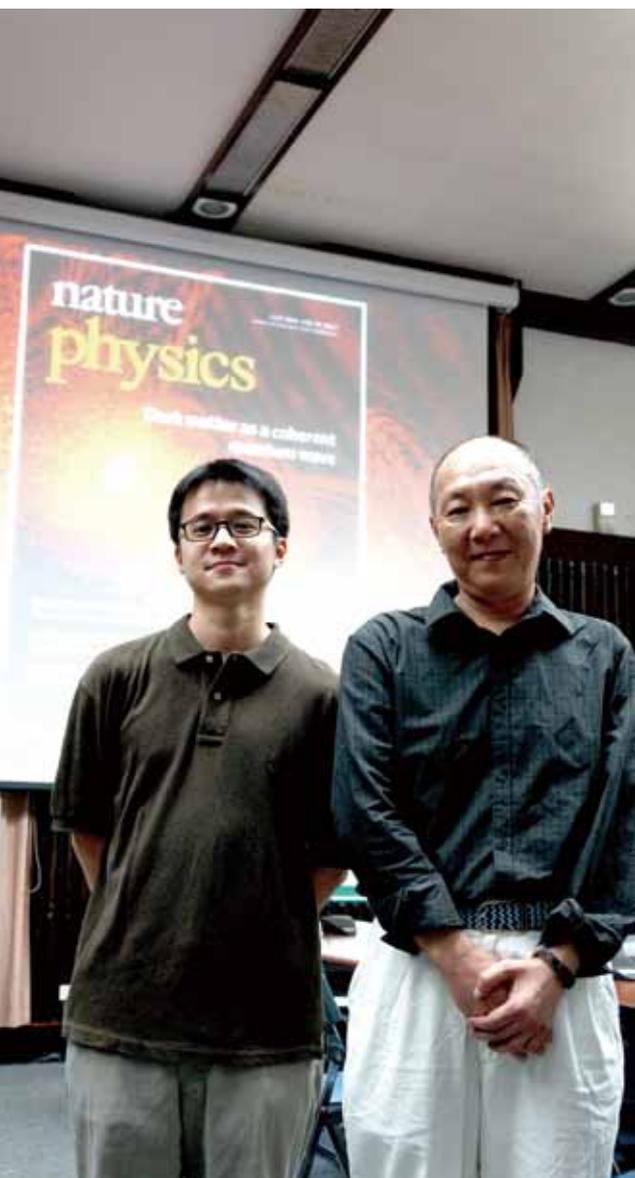
neighboring regions. Consequently, the Museum of Zoology's collection includes a wide array of fauna specimens that are not indigenous to Taiwan.

Under both the Japanese and Chinese Nationalist governments, the gathering of animal specimens was at times influenced by the nation's economic concerns. For example, the government's promotion of research on rodents and fish in an effort to bolster its knowledge of agriculture, public health, and fisheries led to a sudden influx of rodent and fish specimens.

The museum is presently hosting a fascinating exhibition on animal bioacoustics. Designed around three types of animals of entirely different habitats—whales, elephants, and birds—the exhibition reveals the importance of and surprising facts about vocal and auditory communication in the animal kingdom. Not only are the displayed specimens visually striking, the informative signs and helpful museum guides help visitors understand the different ways animals generate and receive sound, as well as how they use auditory communication to find mates, locate food, and build social groups.



# GROUNDBREAKING DARK MATTER RESEARCH MAKES COVER OF INTERNATIONAL PHYSICS JOURNAL



*An NTU research team working in collaboration with a colleague at the University of the Basque Country (UPV/EHU) recently discovered that an extremely light dark matter can potentially solve the inconsistency problems pertaining to dwarf galaxy observations encountered by traditional studies based on massive dark matter.*

the universe as it is incredibly dense and copious. The study also found evidence of an intriguing connection between cosmic dark matter and the supermassive black holes (SMBH) found at the nucleus of every galaxy. This, according to the researchers, presents a potential path to solving previously unanswered questions pertaining to the relation and influences between solitons and the SMBH.

To further analyze its findings, the team built a 64-graphic card cluster computational instrument specifically for the project. The graphic-card cluster was donated to the team by Chip-Bond Technology Inc. in 2013.

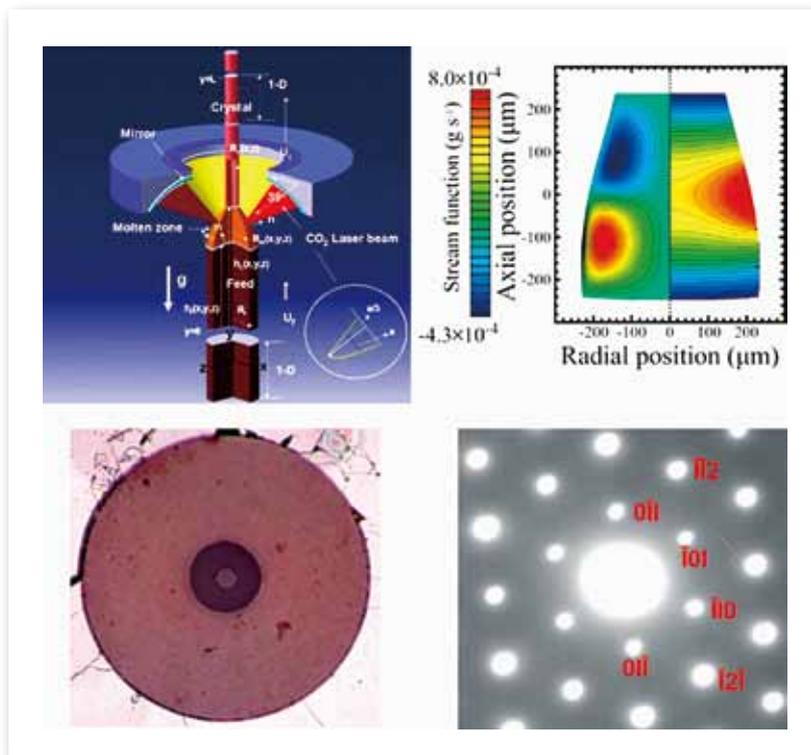
The research team is the first in the world to conduct such  $\psi$  DM simulations for the local universe. As a result, its breakthrough was published in and made the cover of the esteemed physics journal *Nature Physics* on July 1 under the title "Cosmic Structure as the Quantum Interference of a Coherent Dark Wave."

Dr. Hsi-Yu Schive is a world-leading expert in graphic-card accelerated computation. Prof. Tzi-Hong Chiueh is an NTU alumnus and expert in astrophysics and the dynamics of evolution. Prof. Chiueh is currently a distinguished professor of the Department of Physics.

**T**he study, conducted by Dr. Hsi-Yu Schive and Prof. Tzi-Hong Chiueh of the Department of Physics in collaboration with theoretical physicist Dr. Tom Broadhurst of UPV/EHU, differs from previous notions of "massive" dark matter in arguing that extremely light dark matter (dubbed  $\psi$  DM), whose particle is 10-28 times lighter than the electron, makes up the majority of matter in

# Research Achievements

## Advanced Noninvasive Optical Probe Provides Subcellular 3D Images of Human Skin Cells



▲ The state-of-the-art optical coherence tomography system developed at the Center for Information and Electronics Technologies was exhibited during this year's International Photonics Festival Week in Taipei.

Working under a photonics subproject led by Prof. Hung-Chun Chang of the Center for Information and Electronics Technologies (CIET), Prof. Sheng-Lung Huang of the Graduate Institute of Photonics and Optoelectronics and Prof. Jeng-Wei Tjui of NTU Hospital have developed a state-of-the-art optical coherence tomography (OCT) system to image human skin and cancer cells for both morphological recognition as well as parametric analysis.

The OCT system provides a three-dimensional *in vivo* cellular-resolution imaging that is capable of revealing subcellular structures (i.e., the nucleus). The system's high resolution enables the separation of the lamellar structure of the full epidermis in both cross-sectional and *en face* planes. It is believed that imaging modalities, such as this one, serve as one of the keys to early-stage detection of disease and cancer.

Prof. Huang and Prof. Tjui have demonstrated the powerful imaging capabilities of their system by measuring the number as well as thickness of the stratum corneum's layers. Additionally, the optical probe is noninvasive and label-free, making it ideal for clinical applications.

Dr. Hsi-Yu Schive is a world-leading expert in graphic-card accelerated computation. Prof. Tzi-Hong Chiueh is an NTU alumnus and expert in astrophysics and the dynamics of evolution. Prof. Chiueh is currently a distinguished professor of the Department of Physics.

With the OCT, the researchers also conducted an *in vivo* experiment in which they observed micro blood vessels *in dermis* and traced the flowing of red blood cells in real time. They have also developed image analysis algorithms that automatically extract diagnostic information from live tissue and single cells.

The team was able to achieve such high-resolution, high-speed live human skin imaging capabilities through its invention of the powerful, crystalline fiber-based broadband and high-brightness light sources. This patented technology can generate wavelength ranges from 400 nm to 1.6 μm with 3-dB bandwidths from 100 to 250 nm.

Aiming to further realize the exciting clinical applications of their advanced imaging modality, the CIET team has initiated an interdisciplinary research project with an NTU Hospital colorectal cancer research team led by Prof. Chia-Tung Shun. Funded by the National Research Program for Biopharmaceuticals, the project intends to bring this technology into clinical practice through the validation of optical biopsy histopathologically. As a result of the collaboration, the CIET team has developed a new OCT prototype that will serve as a test bed for histology comparison.



▼ Students from Texas A&M University horse around on top of Hehuanshan Mountain while on a BACT excursion this summer.

## 2014 BACT Summer Program Ends on a High Note

▲ Students from Texas A&M University horse around on top of Hehuanshan Mountain while on a BACT excursion this summer.

*The Biodiversity, Agriculture, and Culture of Taiwan Summer Program posted its highest enrollment to date this summer, with 30 participants.*

This year, 24 international students from the University of Illinois, Champaign-Urbana, Texas A&M University, the University of Maryland, Purdue University (USA), National Singapore University, Nanyang Technology University (Singapore), Deakin University (Australia), and Shanghai Jiaotong University (China), along with an administrative staff member from the University of Maryland and five NTU students, took part in the four-week program from June 22 to July 19.

The BACT program provides both NTU and international students with opportunities to learn more about Taiwan's culture,

agriculture, and biodiversity through a series of lectures, excursions, and hand-on activities that promote interaction among participating students. The students become immersed in the local culture as they attend classes and travel around the island. While working side by side in group projects and activities, the participants also form new friendships with local residents along the way.

This summer, BACT added several interesting destinations to its itinerary, including Guishan Island (Turtle Mountain Island), Daxi fishing harbor, Taijiang National Park, Anping Fort (Fort Zeelandia), and the Zhongtai Monastery. It was also the first time BACT participants had the opportunity to visit southern Taiwan, where they experienced the tropical climate, rich tradition, and centuries-long history of Tainan City.

Among the many highlights of this year's program were a chair-making activity at the College of Bioresources and Agriculture's Shuili Wood Factory, preparing hand-made dumplings, and working on a three-day team project at NTU's Experimental Forest in the mountains of Nantou County.

The organizers pointed out that support and input from the faculty of CBA has helped to ensure that the program is regularly modified and updated. Through the addition of new activities and lectures, the program is not only kept up to date, its scope is continuously expanded, ensuring that the program remains attractive to international students interested in Taiwan. In addition, support from the Experimental Forest and Meifeng Farm has proven especially important for the success of the BACT summer program as it provides a fun and educational experience for the participants.

# Teaching and Learning



▲ Participants in the Star Plan Parents Day and Freshmen Orientation fill the lecture hall to capacity.



## Star Plan Parents Day and Freshmen Orientation Draws Big Turnout of Families and Students

**N**TU has stepped up its efforts to provide practical guidance and assistance that helps students who enrolled in the university through the Ministry of Education's Star Plan make a smooth transition to university life.

As part of these efforts, the university held a Parents Day and Freshmen Orientation where the parents and students of this year's Star Plan visited the NTU campus and learned about the academic, psychological, and financial difficulties students might encounter after entering university. The event also provided an opportunity for direct communication between the parents and university officials, who introduced to the parents the school's assistance channels, useful resources, and guidance services.

Instituted by the Ministry of Education as part of the college entrance system in 2007, the Star Plan provides admissions openings at the nation's finest universities for students from remote areas for the

purpose of spanning the widening divide between Taiwan's rural and urban areas.

With a total of 335 students entering NTU through the Star Plan this 2014 academic year, the university received a flood of registrations for the Star Plan Parents Day and Freshmen Orientation. In all, 563 people from 227 families signed up to participate, but on the day it took place, more than 600 students and family members showed up, much to the organizers' delight. With the large turnout, the participants were divided into two groups depending on the colleges the students would be attending.

Participants learned about the full range of NTU's services and resources. The event covered such important information as the learning assistance available to students, the rules concerning changing majors and pursuing minors and dual degrees, as well as financial aid resources, the advisors system, student safety, and student counseling services.





# Symposium Inspires Youth to "Stand Up, Stand Out" to Changing, Challenging World

The 2014 Global Initiatives Symposium in Taiwan took place at the GIS NTU Convention Center this summer during July 14 - 18. The symposium featured more than 20 forward-thinking lecturers from Taiwan and around the globe. The speakers addressed the ever-increasing complexities, confusion, and unpredictability of this constantly changing world, and engaged in brainstorming with the youth of today in order to help the students identify global trends, analyze the difficulties confronting the world, and devise innovative solutions.

The Global Initiatives Symposium in Taiwan has been held annually at NTU since 2009. Adopting the theme "Stand Up, Stand Out!—Break through the Challenges between Generations," this year's conference sought to inspire the nearly 300 student delegates to develop the courage to stand up and take on the challenges of today. The theme was also chosen to let the younger generation know they can find support for their efforts.

The symposium's lecturers were all leading professionals working in a range of fields in academia, government, and business. The lecturers spoke on the four conference topics of: "Power of Youth—Invest in the Next Generation and Bring Power Back to Society," "Politics 2.0—Using the Internet to Participate in Politics," "Collide and Sparkle—Education in East and West," and "Connection between Future Technology and Life—Catching the Trend (Train) to an Innovative Future with Interdisciplinary Cooperation." The symposium was conducted entirely in English.

The symposium was open to graduate, undergraduate, as well as a selection of high school students. In addition to the lectures, the symposium offered workshops, action projects, an essay competition, as well as several interesting social events, including an opening banquet, a farewell party, and a three-day excursion to Hualien.

# NTU at a Glance

NTU's Museum of Archives houses a vast collection of over 1.6 million of the university's official documents. The earliest of these documents tell fascinating stories about the university's reorganization after Japanese rule.

**D**id you know, for instance, that our beloved National Taiwan University was officially named National Taipei University at first? This little known fact of history is revealed in the university's very first document, Document No. 034000001.

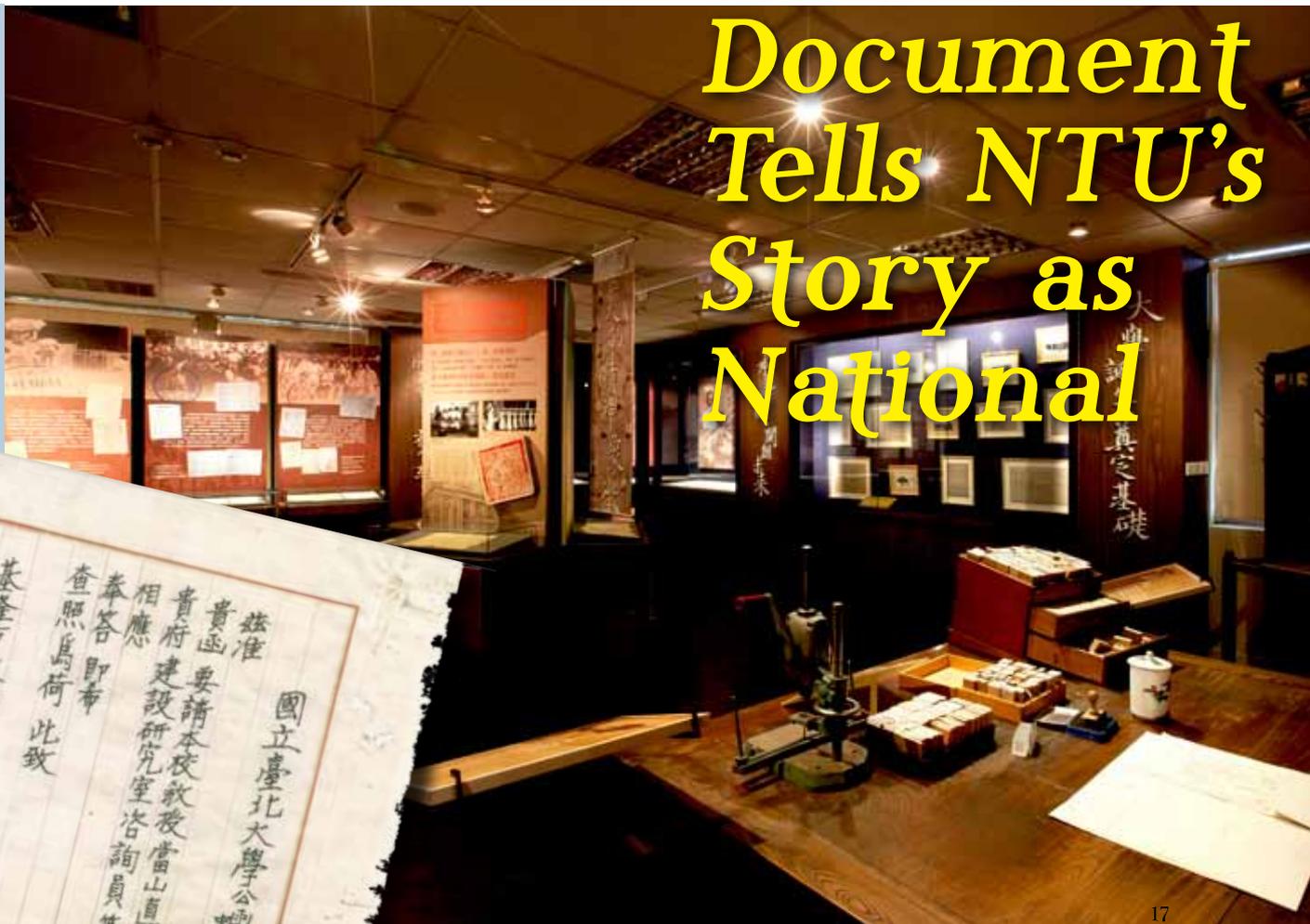
On November 15, 1945, the new government in Taiwan directed that Taihoku (Taipei) Imperial University be reorganized as "National Taipei University." When it came time to pen our first official letter, the person in charge, working with the limited resources of the time, used a form that had belonged to the school's predecessor. Undaunted, the person simply crossed out the "Imperial" and added the characters for "National."

Document No. 034000001 was issued to the Keelung City Government granting its request to hire the Japanese professor "Toyama Naozo" of the College of Engineering as an adjunct researcher. However, an investigation of Japanese faculty

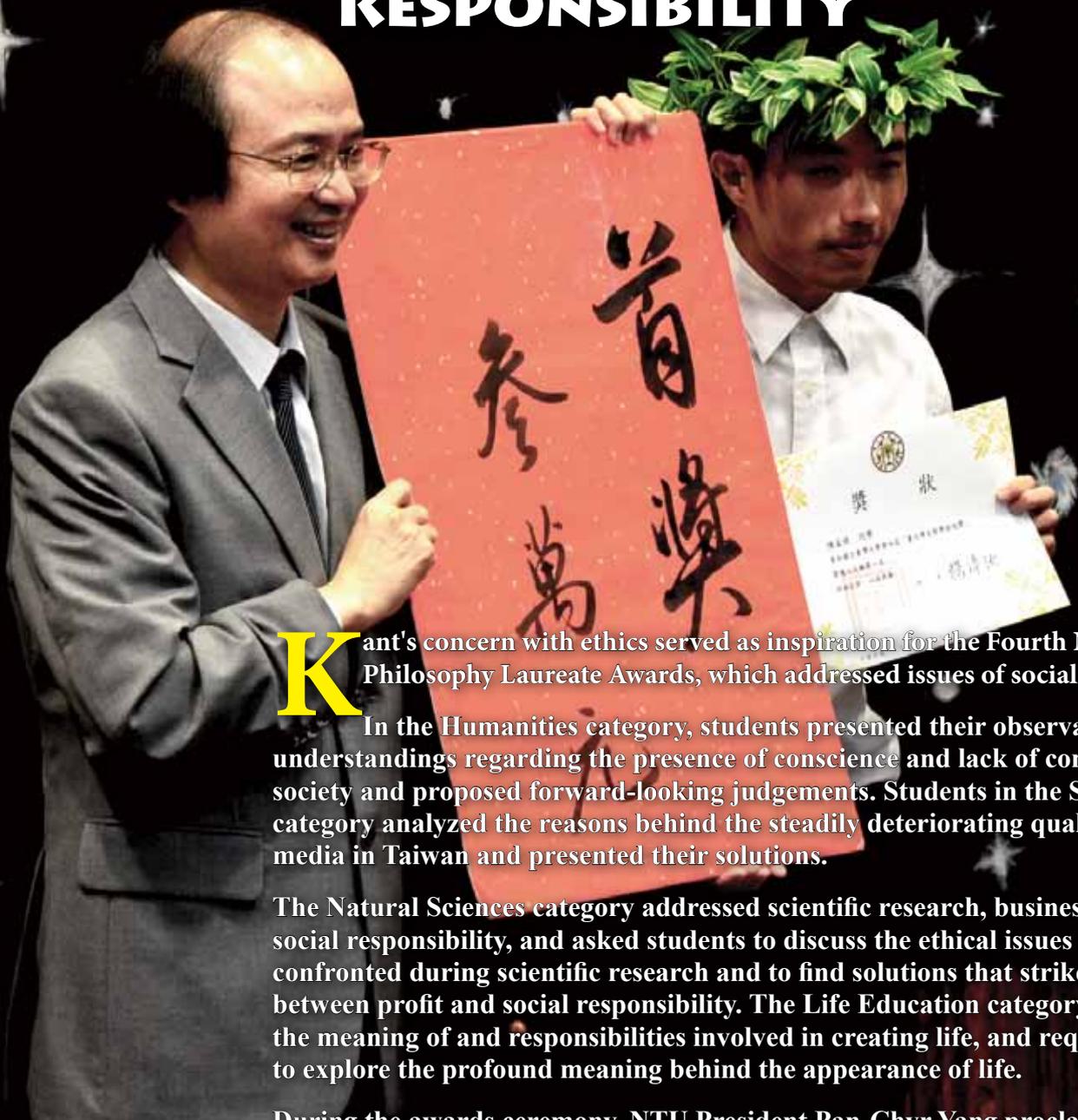
records revealed no traces of a Prof. Toyama Naozo. Instead, the person in question was Prof. Toyama Michizo, who was indeed a civil engineering professor at the College of Engineering.

In December of 1945, less than a month after its reestablishment, National Taipei University was officially renamed National Taiwan University, and the first document bearing this new title was filed as No. 034000002.

## Little Known Document Tells NTU's Story as National



# STUDENT PHILOSOPHERS PONDER SOCIAL RESPONSIBILITY



**K**ant's concern with ethics served as inspiration for the Fourth NTU Students Philosophy Laureate Awards, which addressed issues of social responsibility.

In the Humanities category, students presented their observations and understandings regarding the presence of conscience and lack of conscience in society and proposed forward-looking judgements. Students in the Social Sciences category analyzed the reasons behind the steadily deteriorating quality of the media in Taiwan and presented their solutions.

The Natural Sciences category addressed scientific research, business profit, and social responsibility, and asked students to discuss the ethical issues possibly confronted during scientific research and to find solutions that strike a balance between profit and social responsibility. The Life Education category considered the meaning of and responsibilities involved in creating life, and required students to explore the profound meaning behind the appearance of life.

During the awards ceremony, NTU President Pan-Chyr Yang proclaimed his full support for the awards, stating that NTU's students and faculty bear not just the responsibility of being intellectuals, but also that of reflecting on what it means to be an intellectual.



內付  
國資已  
臺北郵局許可證  
臺北字第4272號

Publisher: Pan-Chyr Yang  
Editorial Consultant: Lin-lin Ku  
Editor: Ta-Te Lin  
Executive Committee: NTU Secretariat  
Published by National Taiwan University  
Tel: 886-2-3366-2032  
Address: No.1, Sec.4, Roosevelt Road, Taipei, 10617 Taiwan  
Website: <http://ntuhighlights.ntu.edu.tw/>  
臺灣郵政臺北雜字第1146號執照登記為雜誌交寄