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HIGHLIGHTS

Astrophysicists to Detect Gravitational Waves in Tibet

Life Science Students
Experience Life in Okinawa

Future Asian Leaders at NTU

"Bird of Myth" Migration Routes
Unraveled

Special Report

Public Health College Accredited by CEPH





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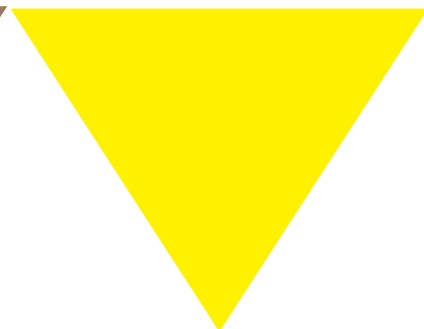
Dr. Tei-Wei Kuo

INTERIM PRESIDENT

We, the stakeholders of the National Taiwan University, should dedicate ourselves with courage and vision to creating a better future for this world. It is the responsibility of NTU to support students by providing an exceptional learning environment. As a Chinese saying goes, "It takes ten years to grow a tree but a hundred years to cultivate distinguished role models." Hence we must give back to the society that has nurtured us. It is essential for all faculty and students to act with gratitude and consistently strive with excellence to value the prestigious position we enjoy at the University.

For almost a century, members and alumni of NTU have achieved outstanding leadership in various social walks. While faculty and students inevitably carry a duty in the progression of the community, we must keep ourselves free from the ideological influence of politics, pondering logically, and honestly facing our mistakes. The ultimate goal is to develop strong leaders of quality and character who will profoundly influence Taiwan's advancement.

It is our sincere wish to transform our society with innovative ideas, enhance knowledge through research and promote business and industry with creativity. Please be mindful of academic freedom and openness to the value of diversity. Be sure to act with integrity, which brings respect to ourselves. Finally, always bear in mind the core values reflected in the University's motto, "Integrity, Diligence, Fidelity, and Compassion."





▲ Dr. Susan Allan, director of the Council on Education for Public Health evaluation team, presents the team's evaluation results for the College of Public Health.

COLLEGE OF PUBLIC HEALTH EARNS FIRST CEPH ACCREDITATION IN ASIA

The College of Public Health formally obtained accreditation from the Council on Education for Public Health (CEPH) in the United States during the Board of Councilors meeting of this respected accreditation organization in late June. The college's CEPH accreditation applies to all of its Bachelor's, Master's, and PhD programs and comes following more than a decade of concerted effort aimed at complying with the CEPH's stringent self-evaluation process.

The College of Public Health was the first school of public health, not just in Asia but in any country outside of North America, to earn the highly-regarded accreditation. With CEPH accreditation granted for five-year periods, the college's accreditation will remain effective until July of 2022.

The college's decade-long road to CEPH accreditation began in 2006 when it began laying the groundwork to apply for accreditation evaluation. In 2013, the college submitted its application, becoming the first college of public health in Asia to commence the CEPH evaluation process.

As part of the process, CEPH Deputy Director Mollie Mulvanity conducted two on-site consultation and observation visits in March 2013 and December 2014. After the college completed three rounds of revisions to its self-evaluation reports, the CEPH review committee granted approval for four committee members to visit NTU to carry out an on-site evaluation.

The on-site evaluation took place over three days during November 16-18, 2016. The evaluation team included Dr. Susan Allan (Associate Professor Emeritus at the University of Washington), Dr. Phillip Williams (Dean of the University of Georgia College of Public Health), David Dyjack (Executive Director of the National Environmental Health Association), and Kristen Varol (CEPH Director of Accreditation Services).



▲ The members of the CEPH evaluation team pose for a photo in front of the Administration Building.

The team's primary mission was to verify each of the items presented in the college's self-evaluation report. Before returning to the United States, the team presented an oral account of its evaluation results. A formal written evaluation report was delivered to the college in January of this year. After the college provided supplemental information, the report was submitted to the CEPH board for approval in June.

The college's hard-earned success was made possible by the long-term efforts of its students, faculty members, and administrative personnel, with the strong backing of the university. Moreover, CTBC Charity Foundation provided financial support during the last two years of the college's drive for CEPH accreditation.

Special Report



◀ Stanford Prof. Chao-Lin Kuo (third from left) and NTU team members, Kuo-Pin Huang (first from left), Prof. Wei-Hsin Sun (second from left), and Yu-Han Tseng (fourth from left)

team's detection and measurement resolution is still recognized as the most precise in the world.

Meanwhile, breathing the thin air atop the Tibetan Plateau, Kuo is collaborating with other researchers who intend to build the world's highest astronomical observation station at 6,000 meters above sea level.

On this project, Kuo leads a Stanford team that is working with a research team directed by Prof. Xinmin Zhang of the Chinese Academy of Sciences' Institute of High Energy Physics. Their objective is to find an extremely dry place suitable for observation with access to logistics in the Ali area on the Tibetan Plateau. Besides collecting data on the Northern Sky, the project team hopes to detect and confirm the primordial gravitational waves that Kuo's team has been seeking at the South Pole.

On July 16 this year, at the end of an epic journey, Kuo and his team members finally arrived at the No. 1 Observation Station in Ali at the elevation of 5,250 meters where devices for detecting gravitational waves are under construction for the Phase 1 investigation. Moreover, the team members have started to venture up to the altitude of 5,950 meters in search of a better spot to set up high-frequency devices for the next phase of investigation.

In Taiwan, Prof. Kuo has invited three professors from the NTU Department of Physics to participate in the project. They are: Prof. Wei-Hsin Sun, who is also Director-General of the National Museum of Natural Sciences; Prof. Pisin Chen, who is Director of the NTU Leung Center for Cosmology and Particle Astrophysics; and Prof. Jiun-Huei Protz Wu.

Prof. Sun has worked on the Tibetan Plateau for nearly 10 years, building an optical telescope observatory and promoting astronomy education.

Primordial gravitational waves are the strong gravitational waves that appeared along with the Big Bang and expanded in the universe. The gravitational waves of black holes were detected last year, but the Holy Grail of cosmology—primordial gravitational waves—has yet to be detected and confirmed.

ALUMNUS PURSUES PRIMORDIAL GRAVITATIONAL WAVES IN ANTARCTICA AND TIBET

Chao-Lin Kuo, a Stanford professor of physics and an alumnus of the NTU Department of Physics, is leading some of the world's most renowned astrophysicists to the extreme corners of the Earth in order to detect primordial gravitational waves.

At the South Pole, Kuo heads the United States-based BICEP3 team, which includes members from Harvard University, the California Institute of Technology, and the University of Minnesota. BICEP (Background Imaging of Cosmic Extragalactic Polarization) is a series of cosmic microwave background experiments that has deployed radio telescopes in Antarctica to detect primordial gravitational waves. The NTU graduate has worked on BICEP for well over a decade.

Although the BICEP team's claim of discovering gravitational waves at the South Pole in 2014 was later withdrawn, the



INTERNATIONAL SCHOLARS DISCUSS HEALTH ECONOMICS AND OUTCOMES RESEARCH AT SYMPOSIUM

A public symposium on "How to Bridge Academia and Industry in Health Economics and Outcomes Research (HEOR)," organized by the School of Pharmacy's HEOR Team under the leadership of the school's dean, Rita Li-Jiuan Shen, was held at NTU on July 4. Invited speakers included international scholars and professionals, as well as local scholars with

practical experience in the health sector. They discussed the latest issues in the HEOR field and shared their insights on how to best apply the knowledge and skills of HEOR in Taiwan.

In recent years, in response to global trends and the need for promoting the most rational, just, and effective utilization of medical technology, many countries across Asia have recognized the importance of HEOR and applied the concepts of economic impact and economic benefit assessment when conducting health technology assessments.

Leading international experts who spoke at the symposium included Dr. C. Daniel Mullins of the University of Maryland and Dr. Ya-Chen Tina Shih of the University of Texas. Dr. Mullins discussed his view regarding the best approaches to establishing the optimal HEOR teams and promoting academia–industry cooperation. In addition, he led a step-by-step tutorial offering considerations and guidelines for evaluating the financial impact of new medical technology on health insurance costs.

Dr. Shih drew on her abundant experience in the United States to offer in-depth ideas on issues concerning insurance payouts for currently emerging cancer drugs. These experts brought up many other issues of importance regarding policy and implementation that might be confronted in Taiwan and the United States.

Prof. Sharon Fei-Yuan Hsiao and Prof. Chi-Chuan Wang of the School of Pharmacy presented talks on research on HEOR-based policy formulation and paths the School of Pharmacy has taken in promoting academia–industry cooperation, respectively.

The symposium also featured presentations by graduate students and alumni on their HEOR research. These included pharmacists' cost-benefit assessments for anticoagulation clinics, assessments of the therapeutic efficacy of statin drugs for the prevention of post-stroke seizures, and evaluations of the types of prescriptions available for and the related financial burdens of bone fracture patients in Taiwan.

Международная
Инженерная Академия



International
Academy of Engineering



FORMER INTERIM PRESIDENT CHANG ELECTED IAE MEMBER IN RUSSIA



▲ Interim NTU President Ching-Ray Chang has been elected as a member of the International Academy of Engineering (IAE) in Russia.

The International Academy of Engineering (IAE) in Russia hosted the 5th Russia-Taiwan Science and Technology Forum in Moscow during July 30 to August 5.

Addressing the theme "Materials and Technology: Ecology of Life," experts and scholars from Russia and Taiwan engaged in exchanges primarily concerning such topics as materials and processes, ecology and resource conservation, and ecology of life in order to establish dialogues and facilitate future collaboration between the two nations.

During the six-day forum, the IAE announced the 26 members and 23 corresponding members for 2017 who had been elected at the annual IAE congress moderated by its president B. V. Gusev.

NTU's former Interim President Ching-Ray Chang was elected as an IAE member for his long-term research on and outstanding contributions to such fields as spintronics, micromagnetics, spin transport in two-dimensional electron systems, and spin dynamics of mesoscopic magnetic systems.

Also during the forum, the IAE wrote a feature story on the participating research team led by Prof. Jenn-Chuan Chern, who is a distinguished professor of NTU's Department of Civil Engineering.



Prof. Suh-Fang Jeng speaks about the reform of physical therapy education in Taiwan during the 2017 annual conference of the World Confederation for Physical Therapy in South Africa.



► Prof. Suh-Fang Jeng accepts the chairpersonship of the Asia Western Pacific Region of the WCPT from the previous chairperson Dr. Gillian Webb.

Physical Therapist Elected Chair of World Confederation's Asia Western Pacific Region

Prof. Suh-Fang Jeng of the School and Graduate Institute of Physical Therapy has been elected chairperson of the Asia Western Pacific (AWP) Region of the World Confederation for Physical Therapy (WCPT). Prof. Jeng's long-term dedication and abundant experience in both scholarship and international service won her the solid support of the member organizations of the AWP Executive Committee during the 18th General Meeting of the WCPT-AWP Region in Bangkok, Thailand on June 27.

During her four-year term, which ends in 2021, Prof. Jeng will work in service of the region's member organizations as she leads the AWP Executive Committee. In addition to Taiwan, the other member organizations on the committee are Australia, Japan, Malaysia, the Philippines, and Singapore.

During her election speech, Prof. Jeng declared that Taiwan has already developed from a colonial territory that required assistance from many sides into an independent nation that possesses advanced and thriving educational and healthcare systems, and that it hopes to share its experience in these areas with neighboring countries.

Prof. Jeng drew praise for her many professional accomplishments during the two terms she served as the director of the School and Graduate Institute of Physical Therapy as well as the two terms she served as the president of Taiwan Physical Therapy Association. In 2013, for instance, Prof. Jeng organized a major joint international meeting in Taiwan of both the WCPT-AWP Region and the Asian Confederation for Physical Therapy, drawing more than 1,000 physical therapy professionals from over 30 countries.

She also initiated a nationwide reform of physical therapy education, which led NTU and National Yang-Ming University to establish a six-year physical therapy PhD program in 2016. Prof. Jeng's advocacy of adjustments to National Health Insurance coverage for physical therapy brought greater fairness to the offering of physical therapy services.

Prof. Jeng also played an active role in the disaster response to the Formosa Fun Coast explosion in 2015. Her establishment of a model for international cooperation for the response led Taiwan and Japan to sign a memorandum of understanding.

In addition to these achievements, Prof. Jeng is also the first Taiwanese scholar to have joined an international physical therapy organization.

Local Student Advisors Broaden Horizons with Summer Plus International Students

At the end of August, when the international students who took part in this year's Summer Plus programs were busy putting the finishing touches on their final presentations, NTU Plus Academy's student advisors and personnel of the Office of International Affairs (OIA) were also busy making preparations for what they knew would be the largest and grandest farewell banquet in NTU Plus Academy's history.

When the night of August 29 rolled around, 68 international students from five Summer Plus programs and nearly 50 instructors and personnel came together for a night of food, fun, and festivities. While the banquet allowed the students to reminisce about the experiences they shared during their two-month stay in Taiwan, it also gave the OIA an opportunity to express its gratitude to the programs' instructors.

Among the banquet's honored guests were former Interim President Ching-Ray Chang and Vice President for International Affairs Luisa Shu-Ying Chang, as well as former President Pan-Chyr Yang.

The short-term programs offered by NTU Plus Academy provide students from around the globe with a variety of exciting opportunities to expand their international outlooks while living and learning in Taiwan. On top of this, the programs also enable local students to broaden their own horizons by working as Plus Academy student advisors.

The student advisors work and play with students from countries around the world, and it is these interactions that comprise the soul of NTU Plus Academy.

This summer, Zoe Lee served as a student advisor for the Chinese Language and Culture Program. Lee



says that, as the students came from all corners of the globe with the common goal of improving their Mandarin proficiency, they not only worked hard in class, but also took advantage of the Tutor Station run by the student advisors, where they did their homework, sought advice, and honed their speaking skills.

Lindsay Lei was impressed that the international students in her Chinese Translation and Culture Program not only were dedicated to their studies, but also took every opportunity to explore Taiwan's cuisine and culture. The students would share their adventures and observations with the student advisors at the Tutor Station, which Lei says helped her view Taiwan's strengths and weaknesses through their eyes.

Hank Liu was surprised to find out that so many international students were interested in the Chinese classics when he started working as a student advisor for the Chinese Classics and Culture Program. He further discovered that the students possessed good Mandarin skills and had already studied some of the classics, which allowed them to take on such classroom topics as Buddhism, Taoism, Confucianism, and the I Ching.



▼ A BXAI student climbs a tree in Xitou Nature Education Area.



◀ BXAI students who had attended a dance class as part of the program show off the moves they learned during the closing ceremony.

CAMPUS HOSTS FUTURE ASIAN LEADERS FOR THREE-WEEK SUMMER PROGRAM

Home to thousands of international students every year, NTU also runs more than 18 short-term programs for international students each summer. This year NTU was honored to have organized the 2017 Bai Xian Asian Institute (BXAI) Summer Program, which brought together more than 117 young scholars from 17 different countries for a three-week (July 31-Aug 16) onsite learning and exploration venture in Taiwan.

Founded in January 2014, BXAI is committed to promoting equality of opportunity, maintaining social justice, advocating charity, promoting social evolution, and respecting regional and global diversification as the basis for cross-cultural understanding. To facilitate this goal, BXAI launched the Asian Future Leaders Scholarship Program (AFLSP), offering full scholarships for students to study at 16 leading universities in Asia, including Peking University, Zhejiang University, Hong Kong University of Science and Technology, Kyoto University, and National Taiwan University. One of the highlights of this program is its fostering of closer ties between neighboring Asian countries, and the best way to build a community of AFLSP scholars is to physically bring them together during the summer.

Based on common interests, NTU and BXAI began their partnership in 2014, when Deputy Vice President for International Affairs Bennett Fu traveled to Shanghai to sign a memorandum of understanding. In 2015, Vice President for International Affairs Luisa Shu-Ying Chang flew to Zhejiang, a province of China, to witness the first BXAI summer program. Impressed by the program's multidisciplinary student entrepreneurs, Vice President Chang approached BXAI with the proposition of hosting the 2017 BXAI Summer Program at NTU. Last year, Vice President Chang led a delegation of nine people from the NTU Office of International Affairs to Tokyo, Japan to observe and learn from 2016's summer program host, Waseda University.

As one of the 16 partner universities in AFLSP, NTU resonates with BXAI's mission of "building bridges across cultures" and has created an interactive platform for intercultural education and lifelong friendship. With the combined efforts of BXAI and the Office of International Affairs, the program design is based on three principles: leadership, critical thinking, and creativity. The program has recruited a network of more than 500 people since its establishment in 2014.

Going hand in hand with this year's theme of "Sustainability and Entrepreneurship," the 117 scholars began their retreat at one of NTU's largest campuses, Xitou Nature Education Area, where they were encouraged to step outside of their comfort zones

International Corner



▲ The closing ceremony of the 2017 BXAI Summer Program takes place at GIS NTU Convention Center.

and begin building comradeship. Presented with team challenges and tasks, including plowing a garden, sanding wood, and climbing trees, the BXAI students had the opportunity to step outside of the classroom and get hands-on experience while developing a connection with the environment.

Upon their return to the NTU Main Campus, the students participated in soft skill learning, panel discussions, and problem solving activities at NTU's D-school. They were also given the opportunity to visit the headquarters of O'right, an eco-friendly cosmetics company, and enjoy other optional leisure activities, such as climbing Elephant Mountain for a glimpse of Taipei from above.

The program concluded on August 16 with a closing ceremony held at NTU's Global Initiatives Symposium Convention Center. Former Interim President Ching-Ray Chang joined the celebration and told the audience that BXAI and NTU share the same mission of intercultural collaboration. Vice President Chang, who serves as Head of the BXAI Program

Organizing Committee at NTU, expressed her delight at watching the participants grow and change over the course of the program. Chang also reminded the young scholars about today's fast-changing society and encouraged them by pointing out that the greatest asset of the program is getting to know and accept the viewpoints of different cultures and becoming global citizens.

The successful completion of this summer's program marks a significant milestone in NTU and BXAI's partnership. The closing ceremony ended with rounds of applause when Vice President Chang presented a Chinese calligraphy album to Prof. Lu Yang of Peking University, which will host the program next year.



▲ The BXAI program drew more than 117 young scholars from 17 different countries to the NTU campus.

More and more NTU students are experiencing student life abroad thanks to the wide offering of summer programs awaiting them at NTU partner universities around the world. This summer, the number of overseas summer programs the Office of International Affairs (OIA) has made available with NTU partner universities for NTU students rose from 28 last summer to 39, and the number of participating students reached nearly 300.



Just as the OIA welcomes outstanding students around the world to enroll in the short-term programs offered through NTU Plus Academy, it also encourages NTU students to put their summer vacations to good use by venturing abroad for overseas studies at NTU partner universities. Among the many study options available are summer sessions, language and culture programs, and summer academic research programs. Academic grades and credits earned through programs at NTU partner universities may be transferred to NTU.

Although summer vacation lasts just a little over two months, using this time for overseas studies can produce fruitful results. Summer programs not only give students a chance to boost their language skills in a short time, they enable students to experience the academic systems and campus climates of other universities around the world. Most importantly, students who go overseas are able to study and make friends with students

MORE STUDENTS EXPAND MINDS THROUGH OVERSEAS SUMMER PROGRAMS



from other countries and cultures, which expands their minds and elevates their thinking.

After returning to the NTU campus, students reported that overseas summer programs are like practice for long-term overseas studies, and added that these experiences increased both their interest and confidence in living abroad as exchange students or in pursuing dual degrees or even Master's and PhD degrees.

Prestigious universities around the globe offer outstanding summer programs for NTU students. In England, the University of Oxford's Hertford College has cooperated with NTU for many years. Its summer program helps students improve their academic English while learning about English culture.

This summer in the United States, the University of Pennsylvania invited four renowned professors of the Wharton School to deliver lectures as part of its summer program, while Stanford University took advantage of its location to lead students on tours of startup companies in Silicon Valley.

In its summer programs, the University of Hamburg in Germany brings international and local students together by pairing international students with students from its Chinese, Japanese, and Korean language departments as learning partners. Recognized for its social sciences, France's Sciences Po offers highly effective language instruction designed for those seeking French language certification as well as courses on French culture.

Among the many other universities offering summer programs for NTU students are the Complutense University of Madrid in Spain, King's College London in England, Nagoya University in Japan, and Ewha Womans University in South Korea.

Research Achievements



▲ A distribution map for the *Sinodiapterna yushana*

New Yushan Dung Beetle Uniquely Related to Russian Beetle

A new species of dung beetle was the first to be given a scientific name in honor of Taiwan's highest mountain peak after its discovery by an NTU researcher in the NTU Experimental Forest near Mount Jade. Named *Sinodiapterna yushana* after the mountain's Mandarin name, Yushan, the newly classified beetle was presented to the world for the first time in the prestigious international journal *Zootaxa* in September.

Assistant Research Fellow Chun-Lin Li of the NTU Experimental Forest captured two adult male specimens of the beetle as part of an Experimental Forest research project surveying altitudinal patterns of species richness for dung beetles in forest areas managed by the Experimental Forest near Mount Jade. Li carried out his survey by setting up fixed, time-controlled specimen collectors in mid-elevation primeval forests located in the Heshhe Forest area of the Shalihsien River valley.

While inspecting his traps, Li noticed that the scutellum of this species' adult beetle was especially long, and realized that this feature could be used to identify the beetle's species. Li then teamed up with Prof. Ping-Shih Yang of the Department of Entomology to perform a detailed comparison against the existing information and specimens. Their

hard work confirmed that the beetle was indeed a member of the *Aphodiinae* subfamily of the scarab beetle family *Scarabaeidae* that was nearly unknown to science.

Further investigation led Li and his coauthors to the surprising discovery that the species most closely related to Li's Yushan dung beetle is an extremely rare beetle called *Sinodiapterna gorodinskiyi* that inhabits forests 2,000 kilometers to the north of Taiwan in Primorskiy Krai in the Russian Far East. This enormous geographical distance is all the more remarkable because it spans a vast difference in climate from subtropical latitudes to a cold northern temperate zone.

Generally, the insect species in Taiwan's mid-elevation mountain areas share a much higher zoogeographical association with insect species in southern and western China, the northern areas of the Southeast Asian mainland, and the eastern Himalayas. With its Russian cousin, *S. yushana* occupies a rather unique position among Taiwan's insect fauna.

Moreover, as entomologists had found only a single adult female specimen of *S. gorodinskiyi*, Li's identification of two adult *yushana* males enables researchers to know more about this rare species both ecologically and morphologically.



▲ Prof. Hsiao-Wei Yuan has completed a ten-year research project that has revealed the migration routes of the endangered Chinese crested tern, which is called the "bird of myth."

Satellite Trackers Reveal Transborder Migration Routes of Endangered "Bird of Myth"

▼ A GPS tracking device is attached to a Chinese crested tern.

A team led by Prof. Hsiao-Wei Yuan of the School of Forestry and Resource Conservation has completed a ten-year



research project that has provided much needed insight into the mating habitats and international migration routes of the endangered Chinese crested tern (*Thalasseus bernsteini*) and its more common cousin, the greater crested tern (*Thalasseus bergii*). Prof. Yuan began the project in 2008, when the Forestry Bureau and Lienchiang County Government commissioned her together with the Wild Bird Society of Taipei to initiate research that would help better protect the rare tern.

The Matsu and Penghu archipelagoes are important breeding grounds for the Chinese crested tern, which came to be called the "bird of myth" because it had not been observed for many years and was feared to be possibly extinct. Although ornithologists and birdwatchers breathed a sigh of relief back in 2000 when film director Liang Chieh-Te observed a small group in the Matsu Islands Tern Refuge, the bird remains a critically endangered species and the rarest of the Laridae family of birds.

Prof. Yuan's research team employed satellite tracking devices to trace the transborder migration routes and the stopover sites between the birds' mating grounds on the island chains of Matsu and Penghu and their wintering grounds overseas. However, in order to avoid

any possible harm to the struggling species, the team opted to attach its tracking devices to greater crested terns, which are categorized as a species of least concern in terms of survival. Since the Chinese crested tern and greater crested tern migrate together and share common breeding grounds, Prof. Yuan and her researchers were able to infer the international flyways of the Chinese crested tern from the tracking data they obtained from their greater crested tern subjects.

From 2008 to 2017, the researchers released a total of 24 greater crested terns carrying satellite trackers, a combined 20 from Matsu in 2008, 2016, and 2017 and an additional four from Penghu in 2015 and 2016. The birds' tracking signals revealed that the greater crested terns of Matsu and Penghu branch into two southbound flyways as they leave Taiwan in August and September. One route crosses the Taiwan Strait to wintering grounds in the Philippines, while the other follows the southeast coast of China en route to winter destinations in Vietnam, Thailand, and Cambodia, and even as far as Myanmar.

Data from the 2016 Matsu release showed that greater crested terns are also active in marine areas near the islands of Taiwan's Kinmen County off the coast of China. Moreover, other data revealed a difference in the makeups of the greater crested tern populations of Matsu and Penghu, with 75% of the greater crested terns of Matsu coming from mainland Southeast Asia and 75% of the Penghu terns originating in the Philippines.

JAPANESE COLONIAL BUILDING HOME TO MEDICAL HUMANITIES MUSEUM



and evolution of people in Taiwan. Much of this research resulted from Prof. Takeo Kanaseki's establishment of physical anthropology studies at the NTU College of Medicine. Following the founding of the

Department of Anatomy at

the Faculty of Medicine of Taihoku Imperial University, Prof. Kanaseki and dozens of his students went on to develop the systematic study of physical anthropology in Taiwan, pioneering physical anthropology research in Taiwan. While Kanaseki returned to Japan following World War Two, his students, including Chin-Chuan Yu, Tsu-Li Tsai, and Hsi-Kuei Tsai, remained in Taiwan

to pursue their research and teaching careers in the field they had helped establish in Taiwan.

The museum also features exhibitions on the study of tropical medicine and snake venom research, which were also introduced into Taiwan during Japanese colonization. The snake venom research exhibition not only shows snake specimens and provides

information on how to identify poisonous snakes, it also demonstrates the different physiological effects of snake hemotoxins and neurotoxins on humans.

Another exhibition celebrates the Father of Pharmacology in Taiwan,



Tsung-Ming Tu. Tu, who was the first Taiwanese doctor of medical sciences, served as a professor at the Japanese Governor-General of Taiwan's School of Medicine beginning in 1922, studied pharmacology and snake venom, and remained an educator for more than 70 years.

The building that is now home to the NTU Museum of Medical Humanities was built in 1907 during the Japanese colonial period, and formerly housed the Faculty of Medicine of NTU's predecessor, Taihoku Imperial University. Located on the College of Medicine campus, the beautiful European neoclassical-style building was designed by Juro Kondo, a renowned architect at the time

While the museum presently displays cherished artifacts and plays an important role in educating the public about the history of medical studies and culture in Taiwan, the building itself has served in numerous capacities for over a century, bearing witness to many historically significant events. The museum was once a teaching facility and an administrative center as well as a venue for academic and social activities for the nation's medical community and a base for the reform of the medical education system in Taiwan.

The museum offers nine exhibition rooms and maintains three permanent special exhibitions: "Evolution and Humanity," "Where are Taiwanese People From?," and "Prof. Takeo Kanaseki and the Physical Anthropology Research of the NTU College of Medicine." The "Evolution and Humanity" exhibition explores the evolution of the human brain from the perspectives of evolutionary biology and psychology, giving visitors a deeper understanding of the gradual development of our species' mental capacity.

The exhibition, "Where are Taiwanese People From?," focuses on research conducted over the course of the university's history concerning the origin



▲ Interim NTU President Chang speaks during the opening ceremony for this year's New Student Orientation Camp.

Academic Year Opening Day Ceremony and Orientation Camp Welcome New Students

The university formally welcomed this year's new undergraduate and graduate students to begin the 2017/2018 academic year at the NTU Opening Day Ceremony on August 31. Following the grand event, the first group of students scheduled to attend the NTU Orientation Camp proceeded to attend the opening ceremony for the four-day orientation program.

The Opening Day Ceremony started with the rousing sound of the students practicing singing the university song. NTU's then Interim President Ching-Ray Chang, the participating administrators, and faculty members joined the students in wearing this year's custom-designed shirt for new students.



Teaching and Learning



NTU presented the shirts to the students as gifts of good fortune. The design of the shirts was chosen from among student submissions by a vote of the NTU student body. Combining iconic campus scenes with common memories of the NTU community, the shirt's design concept aims to send a message of encouragement for students to always remember the original passion and optimism with which they first entered the NTU campus.

Addressing the new students, then Interim President Chang suggested a study attitude of hard work, admitting one's mistakes, and conceding defeat. Chang also reminded the students that, during their university years, especially at NTU, absorbing knowledge from their classmates in a process called peer learning would be the single most important thing in their lives, and that they should cherish this and strive to learn more from their friends.



After the Opening Day Ceremony, Vice President for Student Affairs Cheryl Chia-Hui Chen welcomed the first group of students to the Opening Ceremony of the NTU Orientation Camp, setting them at ease with her light-hearted, humorous approach. The camp is designed to help new students adjust to their new lives as university students and begin making friends and learning about campus resources.

The university organizes two Orientation Camp programs with the same agenda of activities in order to accommodate the large number of new students. Students are assigned to one of the two programs based on which college they would enter. The second group of students began their orientation the following week on September 6.



LIFE SCIENCE STUDENTS PARTICIPATE IN INTERNATIONAL ECOLOGY FIELD COURSE IN OKINAWA



▲ Coral under the microscope

The 2017 International Ecology and Diversity Joint Field Course was hosted by the University of the Ryukyus in Okinawa, Japan during July 28 to August 6. Besides students and faculty members of the Japanese host university, participants in the 10-day summer program also included six students and faculty members from Thailand's Prince of Songkla University, three from Indonesia's Bogor Agricultural University, six from Taiwan's Tunghai University, and five from the NTU College of Life Science.

The 19 participating students were divided into four working groups to learn firsthand about the subtropical ecology and biodiversity of the Ryukyu Islands. The international team of instructors relied on classroom lectures, fieldwork, and discussions to guide the students in pondering the wide range of issues addressed by the various fields of ecology and in analyzing problems through small group discussions. The instructors also held exchanges and discussions among themselves to identify possible areas for academic cooperation.

In the morning of July 29, Prof. Masako Izawa of the University of the Ryukyus presented a lecture on auto-photography. The professor first discussed how to set up photographic equipment and select locations for studying species in their natural environments, and then took the students outside to set up photographic equipment at a campus pond.

In addition, Ryukyu's Prof. Shoichiro Suda led the students in collecting water samples at the pond's water entry and exit points, and demonstrated how to conduct water quality analysis and color extraction. That evening, the host university's Prof. Euichi Hirose escorted the students and other instructors to a nearby fishing harbor to collect samples for later experiments.

On the morning of July 31, everyone boarded a bus bound for Nagodake Mountain just outside of Nago City, where Ryukyu's Profs. Masatsugu Yokota and Tetsuo Denda introduced the Kanna Yoriage Forest. In the afternoon, the students observed the wide variety of plants and animals which inhabit the Gesashi Mangrove Forest.

The bus delivered the students to the University of the Ryukyus's Sesoko Marine Station that evening. The next day, the students took part in a laboratory on coral reef organisms, including corals and seaweeds.

On August 3, after touring the University of the Ryukyus's university museum, the students organized their equipment and attended a briefing in preparation for an excursion to the Ginowan intertidal zone the following day. That night, Profs. Izawa and Hirose guided the students on a night walk on the University of the Ryukyus campus. They had the opportunity to observe over 10 Ryukyu flying foxes during the one-hour tour.

The program concluded on August 5 with group oral presentations and discussions, which stimulated enthusiastic responses from the students and faculty members.

- ▶ The Center for Digital Learning introduces digital learning opportunities at NTU during the largest education fair in Asia.



New Center to Promote Digital Learning for Innovation

The Office of Academic Affairs is establishing a Digital Learning Center this year. The new center will develop high-quality, professional digital learning materials to fulfill NTU's mission of bringing innovation to teaching and learning and deepening the learning experience.

In its pursuit of this mission for classroom innovation, the university has set digital learning as its next goal and will rely on the outstanding personnel of the Center for Teaching and Learning Development and the Digital Learning Center to promote the development of digital learning on campus.

This will include helping instructors to integrate digital learning into their teaching approaches and supporting the development of high-quality online courses for degree programs at all NTU colleges. These efforts will commence as the two centers work together to build a comprehensive digital learning environment. Moreover, the centers will strive to strengthen the R&D and innovation abilities of digital learning professionals on campus in order to boost the overall quality of NTU's teaching and learning.



- ▲ The center's eProfessor program teaches university professors about the concept of flipped classrooms.

One of the goals of the Digital Learning Center is to promote the merging of "the digital and the physical" in course plans in order to boost teaching performance. For instance, for basic required university-level courses, the center will assist professors in converting the content of their lessons into videos. This will allow students to prepare ahead of class and open up more time for class discussions.

Another aim of the center is to develop a wide range of online courses in order to reach more learners and better serve different groups of learners. Besides developing online courses that strengthen the interdisciplinary skills of NTU students, the center will also provide online courses aimed at people from different sectors of society.

Furthermore, the center will also develop digital platform technologies with the goal of enhancing both teaching performance and learning outcomes. Emphasizing the learner's experience, the center will build a digital learning environment that incorporates personalized learning, interactive interface design, teaching management, and data analysis.

Graduating Students Dance the Night Away



The NTU Graduation Prom brought the Class of 2017's graduating students together for a night of wild celebration that gave them a chance to blow off some steam after four years of hitting the books.

The spectacular night proceeded beneath a giant screen erected over the stage that displayed the dance's theme of Day and Night. Below the stage, the crowd danced in couples and in groups of friends as they celebrated the happy years they had spent together. The venue was decorated with colorful, artistic installations that the partygoers used as backdrops for snapping group photos and selfies.



The party's organizer, the NTU Graduation Student Association, went all out in its preparations for the dance. In addition to a performance of this year's graduation song and some fancy footwork by the NTU-PDC (Pop Dance Club), pop stars and NTU alumni William Wei and Chris Liao also took to the stage to sing for their soon-to-be fellow NTU graduates.

