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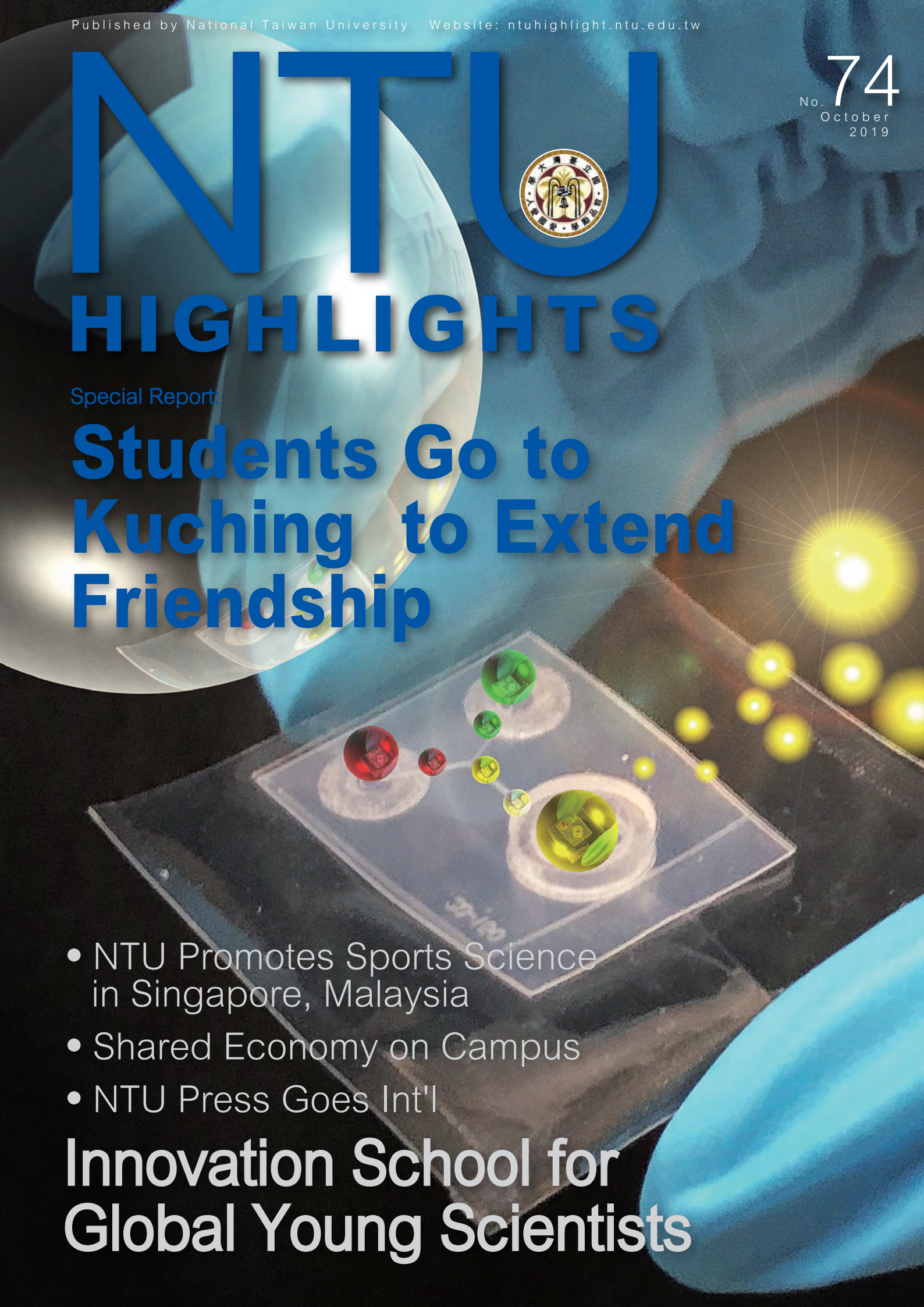
Special Report:

Students Go to Kuching to Extend Friendship



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Innovation School for Global Young Scientists

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Message from the Dr. Pai-Chi Li, Vice President for Research and Development

I was appointed as the Vice President for Research and Development this past January. As an integral part of NTU's continued pursuit of excellence, the ORD—Office of Research and Development—is responsible for providing assistance to advance research at the university. This includes managing research proposal budgets, project execution, and recruitment, as well as charting a path for promotion for the university faculty at every stage of their career.

Since the beginning of 2019, one of my main goals has been to reexamine the research funds available to our faculty members. To create research synergy, newcomers are given the support to kick start their career, more experienced members are supported in their quest for conducting further research, and the senior members are tasked with the responsibility of leading research teams toward excellence.

As the head of ORD, I see providing a platform for research and education as my main mission. For example, we have streamlined administrative procedures and furthered electronic workflow since this past January. This both saves time for the administrative staff and allows researchers to dedicate their time to research.

While facilitating research is the upstream of NTU's R&D chain, our next step is to focus on development, innovation, and incubation. To make strides in this area, the ORD actively assists researchers with patent applications and technology transfers. We have planned a review system with efficient SOPs, as well as stayed updated about international trends so that NTU's research results can be put to the most effective and practical use.

Through teamwork and the quest for excellence, the ORD hopes to enhance NTU's research capacity and create a better environment for researchers to achieve impactful results.

Dr. Pai-Chi Li, Vice President for Research and Development.

President Kuan Encourages Freshmen to Explore the World at Opening Day Ceremony

The opening ceremony for the 2019-2020 academic year was held on September 1 with about 1,800 freshmen, first-year graduate students, and doctoral students in attendance. The attendees were taught the university anthem at the ceremony, and they all donned a limited-edition T-shirt presented by the university. The design of the T-shirt delivers the most inspiring, heartfelt wishes for the students: This is the beginning of an adventure, where vision and future can be found.

With his signature sense of humor, President Chung-Ming Kuan opened his speech by remarking that he was not fond of giving ceremonial speeches. However, it was not something he can avoid in his current capacity. "The next ten minutes may not be a game changer for you, so my only goal is not to make them too unpleasant."

President Kuan proceeded to remind the students that NTU is not yet the best university in Asia, for the moment, despite the fact that it is number one in Taiwan. "The competition in the world is keen with much stronger opponents than you can imagine. Unless you work harder to prove that you are extraordinary, nothing will be reserved for you. There is no 'priority seating' for anyone in the world. While NTU might offer you different training, it cannot guarantee your life will be smooth sailing from here. There is so much that you have to discover and explore on your own."

The students were then encouraged to keep an open mind and stay updated about the progress in the ever-changing world. According to President Kuan, what sets NTU students apart is their vision, open-mindedness, and persistence. They should learn about other fields, as humanities and technology are complementary, set the bar higher instead of being complacent, and uphold their ideals while staying humble. He also promised the university staff would work side by side with the students to be their partners in success.

President Kuan next yielded the floor to Executive Vice President Chiapei Chou who informed the students about NTU's array of international study opportunities. The award for winner of the logo design competition used on the limited-edition T-shirt was also presented at the ceremony. The freshmen then expressed their gratitude to the faculty members as well as their parents for their guidance and kindness. The ceremony ended after the freshmen congratulated each other, with the goal of creating a fulfilling and joyful learning experience at NTU together while realizing their dreams!

Opening day ceremony for the 2019-2020 academic year.

Half-day event at SK Song Kheng Hai.

15th Annual Overseas Service-Learning Group Goes to Malaysia: Stories from Kuching

The NTU Overseas Service-Learning Group made its first expedition to Malaysia in 2004. This year marks the 15th anniversary of this initiative, as well as the group's 5th year in Kuching. Han-Tong Chou, Director of NTU's Overseas Students Advising Division, led a group of 14 students and staff members to render assistance to young students, senior citizens, community residents, and disadvantaged families in Malaysia.

Reciprocity is the leading principle in service learning, and the group members gained precious experience from putting what they had learned into practice. Prior to departure, the university organized a series of courses themed around first aid, event organization, and file management. The students also did volunteer work at local residential care homes as part of their preparation.

The expedition spanned 12 days during July 14-25. After arriving in Kuching, the group started their work on July 15 with a half-day event at SK Song Kheng Hai, a local primary school. The group members taught local students handicrafts with eco-friendly concepts to promote environmental education and sustainable development. For the next three days, the group stayed at Hun Nam Siang Tng, a Buddhist temple, to work with the senior citizens under the temple's care. The group sang songs, led simple exercises, and taught origami to the senior citizens to keep them entertained and healthy.

On July 20 and 21, a science camp was organized at Chung Hua Middle School No. 1. The camp covered topics from the fields of physics, chemistry, biology, earth science, mathematics, and applied sciences. The local students were encouraged to collaborate, brainstorm, and exercise their imagination in putting the theories into practice. On July 22, the team joined hands with the local branch of Tzu Chi Foundation to help disadvantaged groups to clean their living places. NTU's Vice President for Student Affairs April Chiung-Tao Shen traveled all the way from Taiwan to take part in the volunteer work. On the same evening, a dinner with 70 NTU alumni was organized, at which the group members and the alumni shared their learning experiences. For their last mission in Malaysia, the team headed to SJK Chung Hua Tondong, a local primary school, to teach the students about the importance of environmental protection through handicrafts and songs.

After the trip, the participants were encouraged to reflect on their experiences and give feedback so as to better internalize what they had learned and extend their social participation. Besides the local alumni, the group also received the warm support of local organizations and media. Not only was this trip educational, it also served to reconnect NTU's overseas alumni with their alma mater, as well as provide unforgettable memories for the participants.

Extreme Flooding a Possible Cause of the Demise of Angkor: NTU Research Team

The Intertropical Convergence Zone (ITCZ) is located in the low-latitude tropics, a region inhabited by 40% of the global population. The ITCZ accounts for one-third of the world's total rainfall and has been planet earth's richest biosphere with the greatest biodiversity. The slightest hydrological change or small displacement in this zone may profoundly influence the region's biosphere and civilizations.

Prof. Chuan-Chou Shen, a distinguished professor of the Department of Geosciences and Chairman of the Global Change Research Center at NTU, led an international team to trace and record the history of tropical rainfall in Southeast Asia. After 10 years of dedicated work, the team reconstructed 2,700 years of tropical rainfall in southern Thailand and tracked the overall southward ITCZ shift in the Central Indo-Pacific over the past 2,000 years. These findings were published in the renowned journal Proceedings of the National Academy of Sciences of the United States of America in August, 2019. The study further revealed that tropical dry trends in the northern hemisphere could be natural hydrological variations, and the disappearance of the Angkor civilization could be attributed to extreme flooding.

Group photo of researchers in the Klang Cave in southern Thailand.

Shen's research team began to survey caves in Thailand during the summer of 2010. The researchers obtained official permission to collect stalagmites from the Klang Cave in southern Thailand. They then analyzed carbonate oxygen isotope data from three types of stalagmites there, using cutting-edge radiometric U-Th dating techniques to identify their age. It took the team nearly a decade to reconstruct the precise records of tropical rainfall in Southeast Asia over the past 2,700 years.

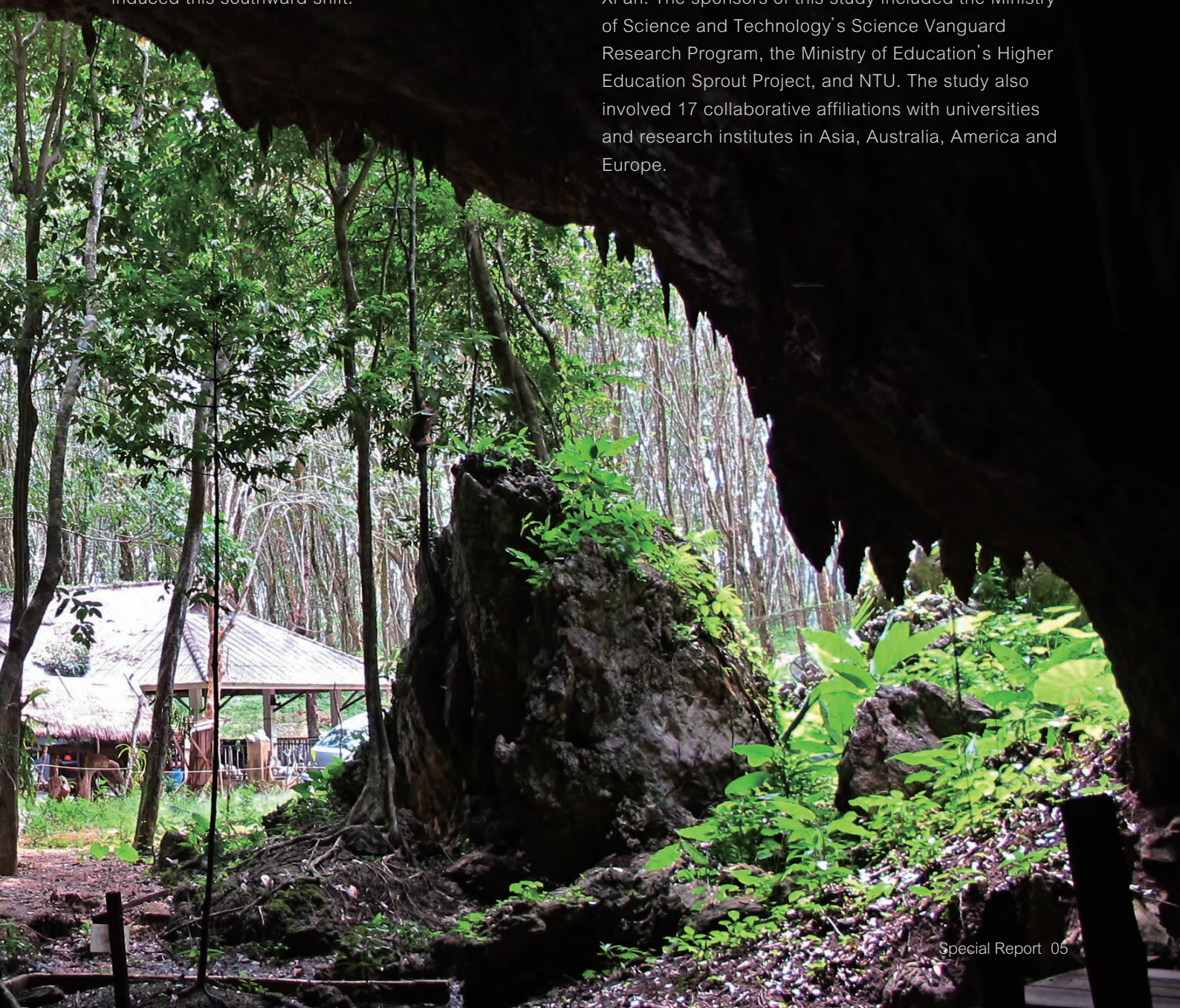
Results indicated that regional rainfall levels have declined steadily during the past 2,000 years. This trend holds true for Southeast Asia as a whole and the tropics north of the equator, including Central America and the Caribbean Sea. Tropical regions south of the equator, however, such as East Africa, east and west of the Pacific, and South America, have experienced increased rainfall. The contradictory rainfall trends in the northern and southern hemispheres could result from the different amounts of solar radiation they receive in summer months.

Southeast Asia has seen wet and dry spells lasting from several decades to centuries. Notable dry spells were recorded between 950-1150, 1200-1350, and after 1910 AD. Wet spells were recorded between 400-800 and 1400-1800 AD. Extremely wet spells were recorded from the late 14th century to the early 15th century, coinciding with the extensive floods and destruction of the water management systems in Angkor, Cambodia, indicating a possible hydro-climatic impact on the decline of the Khmer Empire during the 15th century.

One of the contributions of this study is the development of a 2000-year-long ITCZ shift index time series. The record shows an overall southward ITCZ shift over the past two millennia in the Pacific and Indian Oceans. According to the earth-atmosphere energy balance mechanism, a warming in the south, relative to the northern extra-tropics, could have induced this southward shift.

The current dry trend in the northern tropics, like the ones of the 11-12th and 15-16th centuries, is caused by a southward ITCZ shift. A possible anthropogenic forcing on the rainfall amount could remain indistinguishable from natural variability in the northern tropics. However, if the hydro-climate pattern remains unchanged, it is expected that the dry regions will get drier in the north, and the wet regions in the south will get wetter. In this scenario, tropical biodiversity could shift with ITCZ and governments in the region would have to meet the challenge of redistributing water resources.

The principal investigators of this study were Profs. Chuan-Chou Shen and Ludvig Löwemark of NTU's Department of Geosciences. The first author, Dr. Liang-Cheng Tan, was a postdoctoral fellow at NTU from 2012-13, and is now a researcher at the Chinese Academy of Science's Institute of Earth Environment in Xi'an. The sponsors of this study included the Ministry of Science and Technology's Science Vanguard Research Program, the Ministry of Education's Higher Education Sprout Project, and NTU. The study also involved 17 collaborative affiliations with universities and research institutes in Asia, Australia, America and Europe.



Professor Chia-Wen Kevin Wu delivering his keynote

NTU Professor Receives Asia-Pacific Catalysis Outstanding Researcher Award

At the 8th Asia-Pacific Congress on Catalysis (APCAT-8) held in Bangkok, Thailand during August 4-7, 2019, Prof. Kevin C.-W. Wu of NTU's Department of Chemical Engineering received the Outstanding Researcher Award for his contributions in the field of nanoporous catalysts and biomass conversion. The Outstanding Researcher Award is presented to two winners every year. It is the highest academic honor conferred by the Asia-Pacific Association of Catalysis Societies (APACS) to scientists under 45 years old to acknowledge their outstanding contributions to catalytic science and technology research. This year, the other winner was Prof. Xengju Meng of Zhejiang University, China.

APCAT is the third regional catalytic congress to be established, following the establishment of the European Congress on Catalysis (EUROPACAT) and the North American Catalysis Society Meeting (NAM). APCAT has been held in Australia, South Korea, China, Singapore, Japan, Taiwan, India, and several other countries in the Asia-Pacific region. In 2013, APCAT-6 was hosted in Taiwan; Dr. Chung-Yuan Mou of NTU's Department of Chemistry served as Chairman of the event and was later elected as the president of APACS between 2016 and 2019.

APCAT has been recognized as the most important international catalytic conference in the Asia-Pacific region. APCAT-8 drew nearly 800 attendees from 33 countries and covered a wide range of topics, including catalytic conversions, catalytic reactions, catalytic materials, environmental catalysis, industrial catalysis, and other frontier research fields. After receiving the award, Prof. Kevin C.-W. Wu delivered a speech titled, "Water-Based Synthesis of Metal-Organic Framework (MOFs)-Derived Nanocatalysts for Lignocellulosic Biomass Conversion."

Prof. Kevin C.-W. Wu receives the APCAT Outstanding Researcher Award.

Transforming *"Sacred Religion" into Daoism*, published by NTU Press, receives the ICAS Book Prize 2019.

NTU Press Delegation Attends Asia Scholars Convention and Receives Book Prize

During July 16-19, a delegation from NTU Press attended the 11th International Convention of Asia Scholars (ICAS) hosted by Leiden University, the Netherlands. At the event, the delegates showcased a variety of NTU Press publications in a variety of fields, including Taiwan studies, history, literature, and popular science to the participating scholars from around the world. This was the first time NTU Press took part in the ICAS. This event served as a platform for scholars worldwide to exchange and share their views and research. Moreover, it offered the perfect occasion for the NTU Press delegation to display the university's publications and academic achievements.

Two books published by NTU Press were shortlisted for the ICAS Book Prize 2019 — Chinese Language Edition. They were *Transforming "Sacred Religion" into Daoism: Festival, Belief, and Culture in the Chinese Society of Malaysia* by Dr. Fong-Mao Lee and *From "Honoring the Ming" to "Submitting to the Qing": The Transformation of Chosŏn Korea's Attitude towards Qing China, 1627-1910* by Wei-Guo Sun. At the opening ceremony, the organizers announced *Transforming "Sacred Religion" to Daoism* as the winner of the book prize. This honor was presented in recognition of the author's dedication to academic research, as well as an encouragement for NTU Press to further its effort to publish first-rate academic books. By winning this award, NTU Press hopes to attract the attention of scholars worldwide, draw manuscript submissions from international academia, and advance its standing in academic publishing.

The award-winning book, Transforming *"Sacred Religion"* into Daoism, on display.

Science Innovation School for Global Young Scientists a Big Success

The 1st NTU Science Innovation School for Global Young Scientists made its debut at the International Conference Hall of the Center for Condensed Matter Science at NTU during August 19-25, 2019. Program organizers invited top international and local high school students in their second or third year to explore the excellent learning and research environment at NTU and gain a deeper knowledge of cutting-edge fields, such as quantum computing and the life sciences.

The program drew 47 talented young students from Indonesia, India, Japan, Malaysia, Nepal, Russia, Thailand, and Vietnam, as well as from selected high schools in Taiwan. The local high schools included Taipei First Girls High School, Taipei Municipal Zhongshan Girls High School, Taipei Municipal Jianguo High School, the Affiliated Senior High School of National Taiwan Normal University, and Taipei Municipal Chenggong High School.

Headed by Prof. Chao-Ming Fu of NTU's Department of Physics, program organizers invited several NTU faculty members to offer the participants a glimpse into their research fields. These mentors included Prof. Hsi-Sheng Goan of the Department of Physics, Prof. Chau-Ti Ting of the Institute of Ecology and Evolutionary Biology, Prof. Han-Yi Chou of the Graduate Institute of Oral Biology, and Prof. Hung-Yi Lee of the Graduate Institute of Networking and Multimedia.

For their final presentations in English, the student participants worked in mixed teams of local and international students on research projects in either quantum computing or life sciences. After a week of intensive training, 13 teams exhibited their newly acquired knowledge and skills at the final competition held on August 23.

The top prize of USD 3,000 was awarded to the research project titled “Break the Mold.” The champion team consisted of three students: Shu-Jiun Lin from Taipei Municipal Jianguo High School, Jhih-Jia Li from Taipei First Girls High School, and Sen Shiba from the Hiroo Gakuen Junior & Senior High School, Japan. Besides offering a second prize, a third prize, and three jury awards, the program also awarded a certificate of successful completion to each participating student. Executive Vice President Chiapei Chou was deeply impressed by the students’ performances and praised every team for their innovative research project, the knowledge they gained through the program, and their excellent eight-minute group presentations.

Through this program, NTU gained a large number of young fans and talented applicants with great potential. In addition to the high school students applying for undergraduate degrees, three of the student team leaders also expressed an interest in pursuing a master’s degree at NTU. The 1st NTU Science Innovation School for Global Young Scientists was a resounding success. It provided an opportunity for outstanding high school students home and abroad to experience the excellent learning and research environment at NTU, learn about cutting-edge technologies, and make new friends from all over the world.

Group photo.

Two-year students from Taipei Municipal Jianguo High School, Taipei First Girls High School, and Hiroo Gakuen Junior & Senior High School from Japan teamed up and won the championship.

Student presentations.

Group photo of students and staff members of the 2019 NTU Plus Academy Summer+ Programs.

2019 NTU Plus Academy Summer+ Programs: Connect with the World, Excel with NTU

The 2019 NTU Plus Academy Summer+ Programs offered 13 programs to 277 elite international students from over 100 top universities located in 23 countries around the world this past July and August. Besides enriching their academic knowledge, the students had the wonderful opportunity to develop a better relationship with Taiwan.

Organized by the Office of International Affairs (OIA), the short-term programs covered topics ranging from Mandarin Chinese language learning, Chinese-English translation, research and experimentation, arts and culture, business management, technology and engineering, natural sciences, to law and the social sciences. The students came from leading universities around the world, including the University of California, the University of Illinois at Urbana-Champaign, the University of British Columbia, the University of Tokyo, Seoul National University, Peking University, the University of Groningen, and the University of Sydney, just to name a few.

Besides coordinating the programs, the OIA was in charge of offering several programs, including "Chinese Language & Culture," "Chinese Translation & Culture," "Research & Culture," "East Asian Studies: Society & Culture," and "Exploring Taiwan: Art & Culture."

Among these courses, "Research & Culture" has been a long-standing highlight of the Summer+ Programs. Every year, over 120 NTU faculty members from 11 departments pitch in, ensuring that the students can choose research topics that are related to their own research interests and training backgrounds. Once accepted into the program, the students can join short-term research projects led by NTU professors. This provides an excellent opportunity for them to learn from the best professors and laboratories in Taiwan. While thus enhancing their research methodology and enriching their knowledge base, the students become acquainted with the local academia and research scene.

Over the course of 4-6 weeks this past summer, the students were immersed in Taiwan's local customs, landscapes, human geography, and history through the academic programs, group visits, and other activities. Not only did they experience Taiwanese culture as a hybrid of traditions and modernity, they were impressed by the friendliness and enthusiasm of the Taiwanese people. Additionally, the OIA recruited 13 student advisors from NTU who assisted with the planning and execution of all the program activities and provided practical tips and information to help the international students adapt to the new environment in Taiwan. Through these programs, the OIA hopes to attract more outstanding students from abroad to study at NTU and enhance Taiwan's international influence and visibility.

A welcome tea party for students of the language and cultural program at Hertford College, the University of Oxford.

NTU Summer Programs Open a World of Opportunities

Every year nearly 300 students from NTU spend 3-6 weeks attending summer programs at NTU's partner universities to enhance their language skills, experience different learning environments and cultures, and interact with students from diverse countries.

NTU's Office of International Affairs (OIA) collaborates with prestigious colleges all over the world to provide summer programs for students every year. This year, the OIA offers a total of 33 programs, divided into three categories: summer academic programs, language and cultural programs, and summer research programs. Academic credits acquired during the summer programs are recognized by the school, further motivating students to gain international learning experiences and knowledge of different cultural and community perspectives through the programs.

Among the summer academic programs provided by NTU's partner universities, UC Berkeley Summer Sessions and UBC Vancouver Summer Program are the ones most coveted by the students. These programs may be regarded as short-term student exchange programs, which serve as stepping stones for students who are serious about studying abroad in the future.

Stanford University, the University of Pennsylvania, Heidelberg University, the University of Hamburg, the Complutense University of Madrid, and Kwansei Gakuin University offer language and cultural programs focusing on language acquisition as well as visits and experiential events that are entertaining and educational.

NTU has also partnered with Hertford College, the University of Oxford to organize a special course targeting freshman students who are going to enroll after the summer. The course will allow these students to meet peers from different departments and classes, gain familiarity with the campus, and better adapt to college life.

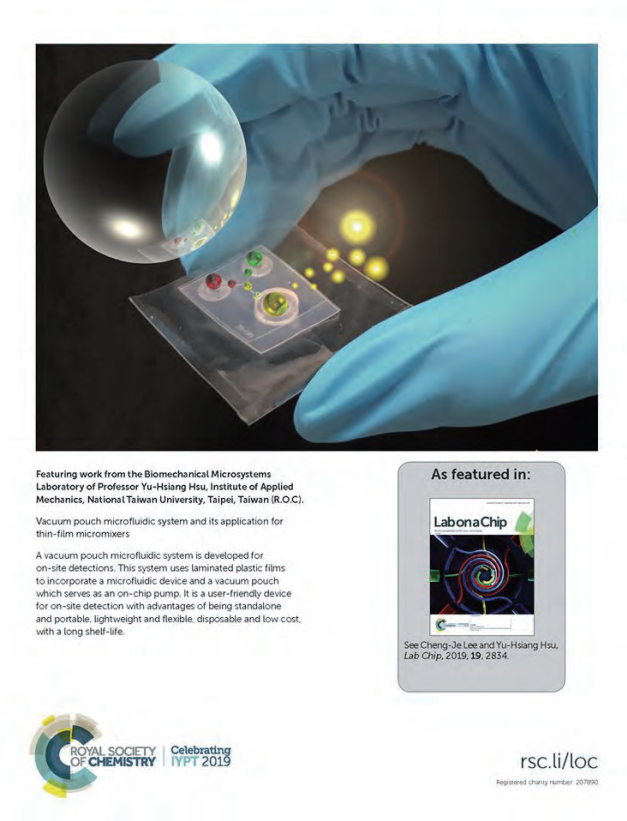
This year, NTU and its partner university, the University of Queensland, will also be offering a course focused on IELTS training, aimed at boosting the students' performance and their scores during the NTU Exchange Students Internal Screening Process in November.

Summer research programs include opportunities for third-year students and above to study and conduct research at top research institutes at The University of California, Davis, North Carolina State University, University of Hamburg, and Nagoya University.

Information about NTU's summer programs is released in late December every year by the OIA. Moreover, the 2020/2011 NTU Study Abroad Fair will be held in the square in front of the First Student Activity Center and along the Palm Avenue in front of the Multi-Purpose Classroom Building on November 9 so that interested students may learn more about the programs. For more information, please visit https://oia.ntu.edu.tw/.

NTU Team Develops Novel Lab-on-a-Chip System for Microfluidic Mixing

Prof. Yu-Hsiang Hsu and his doctoral student Cheng-Je Lee of NTU's Institute of Applied Mechanics developed a lab-on-a-chip system called vacuum pouch microfluidic (VPM) system, which can be applied on thin-film micromixers. Hsu and Lee were inspired by the design of vacuum bags, and their research was selected for the cover of the September issue of the Royal Society of Chemistry's *Lab on a Chip*, a high-impact journal for microelectronic biomedical research.



Issue cover.

Applying microfluidic methods has become a trend in biomedical, biochemical, and environmental monitoring research. Despite abundant literature, few microfluidic chips have been successfully commercialized, and most mature microfluidic products on the market are test papers that rely on capillary force. Over the past decade, scholars have tried to figure out why microfluidic devices are not so popular. The research revealed that building a high-quality world-to-chip microfluidic interface is the key to increasing the market penetration rate of microfluidic devices.

Hsu and Lee used a commercial hot embossing process to fabricate a thin-film micromixer. Then, they laminated a degassed plastic pouch with the thin-film micromixer to develop the film-type self-driving VPM system that is only 0.4 mm thick and 0.3 g in weight. The operation of this VPM system is also significantly easier to perform than are conventional methods. Users only have to load the reagent and analyte to the system, pierce it with a needle, and release the negative pumping pressure stored in the vacuum pouch to complete the mixing process. The study also verified the feasibility and reliability of the system by applying different chip designs and solutions. Information on how long the VPM micromixer can be stored and the possibility of its commercialization are also discussed in the study. Lee is positive about the potential of this technology, as it only takes a plastic thin film and atmospheric pressure to adjust over a thousand variations of microfluidic speed changes.

The researchers used an efficient, simple strategy to construct a microfluidic system that is standalone, portable, disposable, lightweight, and low-cost. Moreover, the micromixer can adjust solution and volume flow rates in the channel to perform different mixing tasks. Meanwhile, this research team is actively applying this technology to more microfluidic practices, such as multiphase flow and particle filtering, hoping to develop an integrated, portable personalized biomedical testing platform for rapid screening and on-site medical services.

Students getting across campus on e-scooters.

Shared Transportation Changes How Students Commute

Students riding their bicycles along the Royal Palm Boulevard and rushing from place to place is a common scene at NTU. During class breaks, students park their bicycles near the campus convenience stores and the Multi-Purpose Classroom Building, leaving these areas completely jammed. The bicycle parking spaces around the nearby MRT station are often jampacked as well, requiring personnel from NTU's Office of General Affairs (OGA) to tidy them up from time to time. According to the statistics provided by the OGA, 80% of NTU students own a bicycle and around 20,000 bikes are currently on campus. However, 7,000 bicycles would suffice, according to Assistant Manager Wei-Hung Juan of the GOA General Service.

To reduce the excessive number of bicycles on campus, the OGA decided to ride the tide of the sharing economy and provide bicycle- and scooter-sharing services. NTU's traffic committee agreed to the scooter-sharing scheme this past August, and a trial period of one year will commence next semester. Ya-Fang Hsueh, Head of the OGA Traffic Subsection, believes this proactive policy would not only be effective but also in step with the future of transportation. For example, short-term international students could use the shared bicycles or scooters to commute and not need to purchase bicycles, thus reducing the number of bicycles ridden and parked on campus.

Currently, two e-scooter companies are planning to enter NTU and build 20 stations on campus. Locations will include student dormitories, the Administration Building, the Multi-Purpose Classroom Building, convenience stores, cafeterias, and the NTU Library. Students must observe the campus's speed limit and not exceed 20 kph. During the trial stage, the e-scooters will be available only on campus and become slowly deactivated if the GPS detects them off campus.

Besides shared bicycles and e-scooters, iRent, a car-sharing service, is also popular at NTU. According to Hsueh, iRent benefits faculty members who need to go on business trips and students who need to commute to Academia Sinica to conduct experiments. The service also benefits those who wish to travel or make purchases off campus. NTU also signed contracts with shared motor scooter companies, permitting motor scooters to be parked in the campus parking lot for rental purposes. This service provides students with more transportation options. Moreover, they can travel more safely on campus because the service providers are responsible for regular vehicle maintenance and inspection.

In the future, NTU students will enjoy riding shared bicycles or e-scooters on campus and use shared motor scooters and cars for long-distance travel. Hsueh believes that as transportation transitions into the era of the sharing economy, the university should keep pace with the times and provide students with a wider range of services. Also, shared transportation will help reduce the number of bicycles on campus and offer greater convenience to every member of the NTU community.

Group photo of Executive Vice President Shan-Chwen Chang and Dean Yen-Hsuan Ni with members of Xikou Rotary and the medical service team at the flag presentation ceremony.

NTU 2019 Summer Medical Service Teams Pay Love Forward

Volunteering provides an opportunity to give back to the community by using one's current skills or gaining new ones. Every summer, NTU students organize medical service tours to provide quality care in rural areas where medical or educational resources are scarce. This summer, four NTU medical service teams headed to different parts of the island to share their knowledge and expertise. Heading to southern Taiwan, the College of Public Health Summer Service Team conducted environmental sanitation surveys and home visits. The team also shared health information by giving talks and organizing a summer camp for children. The Traditional Medicine Club went into the mountains of northern Taiwan to provide pro bono medical consultations, conduct home visits, and offer hygiene education to residents, young and old. The College of Medicine Service Team offered similar services in eastern Taiwan, providing medical services and conducting health surveys. Last but not least, the Oral Hygiene Service Team shared knowledge of oral hygiene with local children and provided basic medical care.

As the saying goes, it's more blessed to give than to receive. The volunteers learned to be better listeners and team players from the activities. Every year, NTU teams observe changes in these places. Children have grown, seniors are living healthier, and homes are newly remodeled to become more accessible to elderly people. Children who once attended NTU summer camps have grown up to become nurses and returned to serve their hometowns. These heartwarming stories encourage NTU students to travel long distances every year to offer their support.

Not all stories have happy endings, however. Some invaluable takeaways are, unfortunately, hidden in heartbreaking stories. One year the medical service team saved a young man with an acute infection. The successful treatment did not bring about a "happily ever after" outcome because the man had no family, friends, or social support. Too frail to work, he was unable to follow the medical advice provided. The case helped students understand that without a robust social safety net, the effect of their work will be marginal at best. Such frustrating experiences enable the students to recognize the problems stemming from inequity in Taiwan and motivate them to make a difference. While an annual service trip cannot help solve the people's medical, economic, and educational issues in these areas, yet "many a little makes a mickle."

Each trip requires one year of preparation, and it is made possible thanks to the support of various sponsors and the help of NTU's medical staff. Due to this collective effort, students can escape from the hustle and bustle of the city and enjoy the tranquil beauty of nature as they travel to serve people in these remote locations. Away from the city, students not only put their knowledge into practice but also learn to become more generous and selfless people.

NTU Heads South to Promote Sports Science Exchange

An NTU delegation led by Prof. Kun-Pei Lee, Director of the Department of Athletics of NTU's Center for General Education, traveled to Singapore and Malaysia to take part in exchange activities during August 23-27, 2019. Their destinations included Nanyang Technological University, the Singapore Sports Hub, the University of Malaya, and the Malaysian Ministry of Youth and Sports. This southbound sports exchange project was supported by the Sports Administration of the Ministry of Education.

The concept of "Sports plus" refers to the cross-disciplinary integration of sports with education, businesses, entertainment, and tourism to create more added value. As this notion becomes increasingly popular around the world, the demand for advanced-level physical educators is also growing. Both a teaching and administrative unit of NTU, the Department of Athletics is not only in charge of providing innovative sports services and steady facility maintenance, it also collaborates with NTU's Master's Program in Sport Facility Management and Health Promotion in formulating forward-looking plans and suggestions for developing the sports infrastructure on campus according to the concept of "Sports plus."

While in Singapore, the delegation's first stop was the Master of Science (Exercise and Sport Studies) Program of Nanyang Technological University, a leading university ranked 12th in the 2019 QS World University Rankings. The program covers a range of fields, including the management and leadership of physical education and sports programs, Olympics studies, sports physiology, and fitness. During the visit, the delegation benefited from the program's experience in managing new sports facilities and experimental equipment.

Next, the delegation headed for the Singapore Sports Hub — an innovative complex for sports, entertainment, and leisure operated using a public-private partnership model. The hub was completed in June 2014 and houses a variety of facilities, including a stadium, a multi-sport indoor arena, a library, a sports museum, an aquatic center, and a mall. The hub is surrounded by a walking trail that connects all the facilities, providing citizens with an open space for exercise and small gatherings. By adjusting its stage and seating area, the stadium can serve for a variety of events, including commercial performances, cultural activities, competitions, and training sessions. The NTU Sports Center can gain new insights from the hub's innovative plans for management, spatial design and utilization, and liberal education.

The delegation then traveled to Malaysia to visit the University of Malaya (UM), a school known for medical and chemical research, ranking 70th in the QS World University Rankings. UM's Centre for Sports and Exercise Science has published profusely on sports science and competition. The university is home to the country's Olympic and national athletes, who are trained to become coaches, researchers, or industry leaders after graduation. The discussion between the delegates and UM representatives focused on student sports participation, talent cultivation, athlete career counseling, and sports development. Both schools agreed to increase their sports research collaboration in the future.

While in Malaysia, the delegation also visited the Malaysian Ministry of Youth and Sports and exchanged views with the minister on national sports acts, policies, and organizational management. By visiting sports institutes and colleges in Singapore and Malaysia, the delegation gained an in-depth understanding of their developments in sports higher education, management, and research. This knowledge will inspire new ideas for the future planning of NTU's sports courses, research, and spaces.

Singapore Sports Hub.

New Book Sheds Light on the Future Development of East Asian Philosophy

The Selected Papers of Hung Yao-hsün offers the readers a deeper understanding of Taiwanese philosophy.

Who was Yao-Hsün Hung? Did he innovate a form of Taiwanese philosophy? What are the characteristics of this philosophy? What was Yao- Hsün Hung's role in the reception and development of philosophy in East Asia? Why is Yao-Hsün Hung's thought deeply related to the philosophy of existence and Japanese philosophy? What is the contemporary significance of his philosophical thinking? These are some of the questions to which you might find answers in *Selected Papers of Hung Yao-hsün.*

Selected Papers of Hung Yao-hsün contains eight philosophical essays written by Yao-Hsün Hung, a Taiwanese philosopher, from 1934-1943 during the period of Japanese rule. These papers show implicit and explicit references to the Kyoto School philosophy, a source of Hung's philosophical thinking. In response to philosophical developments occurring at the time, Hung developed the notion of historical existence by citing Nishida's theory of I and Thou. Moreover, he explored the concept of existence as the philosophical foundation of Taiwanese literature, and he argued that the philosophy of value in Neo-Kantianism should echo historical reality in order to overcome its abstract metaphysical world of value. As a result, Hung's philosophical thought deepens the concept of existence and transforms the philosophical sources of Tetsuro Watsuji's theory of F ū do, Risaku Mutai's logic of world expression, and Hajime Tanabe's logic of species into Taiwan's historical reality of "individuality, particularity, and universality." These philosophical approaches, in turn, contributed to unique philosophical developments in Taiwan, a place that was culturally and linguistically different from Japan.

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NTU Spends 1.6 Billion on Faculty Housing to Attract Talent

NTU is located at the center of Taipei, and though faculty members enjoy the convenience of this bustling metropolis, the housing prices can be discouraging to the junior faculty. In order that faculty members may focus on their research and teaching, NTU offers special housing for new faculty members. Incoming faculty members may apply for housing from their first year at NTU. Since many young professors are also starting new families, the NTU Preschool and the superior public elementary and junior high schools in the vicinity ensure the faculty members that their children will receive the best education.

Starting from this year, NTU will extend the maximum faculty housing lease period from three to four years, to impart a sense of permanence and stability to its professors and lessen their economic and family burden. The university will continue making evaluations to determine whether the housing lease period could be extended in the future.

In addition to extending the lease period, the school also decided to increase the number of faculty housing units to meet the growing demand of applicants. After a retired professor vacates the housing, the place must be refurbished before the next resident moves in. This time-consuming process and the limited number of housing units make it difficult for applicants to take occupancy in due time. Every year, only 30 available housing units come available while there are over 250 applicants. This severe shortage of faculty housing means that a young assistant professor may have to wait up to 10 years to have faculty housing.

To tackle this problem, NTU launched the “Faculty Housing Construction Loan Project,” with an NTD 1.6 billion budget, to renovate 14 off-campus sites. The first phase of the project includes the construction of faculty housing on six sites that will provide 75 units upon completion. These new housing units will help to alleviate the housing problem that is faced by the new NTU professors.

Faculty housing at Yongji Road.

NTU faculty housing units are mostly located in the quiet alleys near campus, allowing the occupants to enjoy the tranquility and convenience the area offers. It is hoped that the new housing facilities will help NTU attract more international talents to join the school and raise Taiwan’s standard of research and teaching in the years to come.

UToyama Donates the First TIU-Issued Doctoral Diploma to NTU

Prof. Masayuki Ikeda, Executive Vice President of the University of Toyama (UToyama), led a delegation to visit NTU on July 22. This was the first time Prof. Ikeda visited NTU since he took office earlier in 2019. In addition to bilateral cooperation discussions, Prof. Ikeda presented a historically significant gift to NTU—the first doctoral diploma issued by Taihoku Imperial University (TIU), the institutional predecessor of NTU, to his grandfather-in-law.

The UToyama delegation was warmly received by NTU's Executive Vice President Ming-Syan Chen, Librarian Kuang-Hua Chen, Vice President for International Affairs Bi-Fong Lin, and Prof. Shih-Hsun Hsu of the Department of Agricultural Economics. In his opening speech, NTU Executive Vice President Chen welcomed the delegation and deemed the precious gift a token of the warm friendship between the two schools. Prof. Ikeda highlighted the long-term collaboration between UToyama's Faculty of Engineering and NTU's Neurobiology and Cognitive Science Center, as well as the recent collaborative projects between UToyama and NTU's Department of Agricultural Economics.

Though UToyama and NTU are not yet partner universities, they share similar research fields and interests in science and literature. The main purpose of Prof. Ikeda's visit was, therefore, to foster more bilateral exchanges and bolster the friendship between the schools. During the auspicious event, Prof. Ikeda donated the doctoral diploma his grandfather-in-law had received in 1938 after completing his studies at TIU in Taipei. His grandfather-in-law was a graduate from TIU who felt deep affection for the school and Taiwan.

The gift not only has sentimental significance but is also the very first doctoral diploma TIU/NTU issued after its establishment in 1928. Executive Vice President Chen received the gift on behalf of NTU and presented a certificate of appreciation in return. In addition, NTU Library prepared the first PhD graduate's student record and transcript as another present. After the meeting, the delegation toured the Gallery of NTU History to explore NTU's campus and history.

Prof. Masayuki Ikeda (left), Executive Vice President of UToyama, donates his grandfather-in-law's TIU-issued doctoral diploma to NTU.

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