



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

NTU

April 2018
No. 65

HIGHLIGHTS

NTU to Embrace AI

**Oceanographers Explain
Kuroshio Current**

**NTU, 3 Tokyo Universities
Strengthen Academic Ties**

**Students Promote Campus
Sustainability**



Chung-Yuan Mou
**Chemist, Newly
Appointed
Academician**



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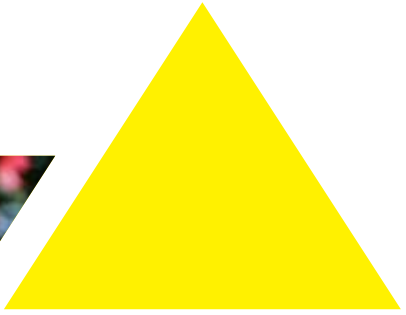
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Director, NTU Press

TAY-SHENG WANG

National Taiwan University Press has remained committed to its original mission of “Leading Scholarship through Publication” since its founding. Our team has endeavored to publish academic books across all disciplines and build a rigorous review system in order to create an academic publishing platform that caters to researchers in particular. The scope of scholarship we aim for is not limited to the NTU campus, but encompasses Taiwan as a whole as well as the international community.

NTU Press has collaborated with the Harvard-Yenching Institute in publishing the National Taiwan University and Harvard-Yenching Institute Academic Book Series. We have also used copyright exchanges in order to authorize overseas publishers to print NTU Press books, which has boosted the visibility of Taiwanese research around the globe.

In addition, NTU Press has compiled and published textbooks for many years. Several textbooks of NTU Press are best sale books now. Furthermore, we are planning to compile a textbook, called *Collected Essays on Taiwanese History*, which will cover basic knowledge of Taiwanese studies with the aim of bringing Taiwanese studies more closely in line with historical experiences.

This year, a very special project will see the release of *The National Taiwan University 90th Anniversary Book Collection* in coordination with the university’s anniversary celebration. This boxed book set contains a selection of ten exemplary academic works and innovative and influential textbooks with original publication dates ranging from the university’s founding in 1928 to the present. The republication of these ten classic works authored by NTU faculty members highlights the outstanding academic research contributions produced at NTU since its founding while also honoring the individual achievements of the authors who dedicated their lives to research and teaching. For NTU Press, the collection stands as an example of an ideal publication and represents the ultimate goal of our determination and hardwork.

As we look to the future, I expect NTU Press to play a more active role in seeking manuscript submissions from outstanding researchers at NTU and Academia Sinica. Our digitization efforts have enabled us to distribute our books online and reach more readers through their smartphones and tablets. We are also continuing to develop multiple marketing channels this year. This will include participating in international book fairs, which will help expand the academic influence of Taiwanese scholars around the world. In addition, we will hold new book release conferences in order to bring readers face to face with the authors they read. These events make the sometimes dry and complex findings of academic research relevant to the readers’ real lives, transforming scholarship into an aspect of everyday life.

NTU Press has never taken a passive approach to marketing. We continue to pursue our goal of using marketing to promote scholarship and connect Taiwan to the world. It is my aspiration that, regarding Taiwan, NTU Press uses books to popularize academic knowledge and, looking to the world, we step out of the conventional framework and create more opportunities for exchanges through academic publishing.



After 40-Year Love Affair with Chemistry, Prof. Chung-Yuan Mou Looks Back on His Academic Path



Upon graduating from the NTU Department of Chemistry in 1970, Prof. Chung-Yuan Mou headed directly to the Department of Chemistry at Washington University in St. Louis, Missouri to pursue his PhD, which he obtained within five years. When he thinks back to the NTU campus at that time, Prof. Mou says with a smile that NTU looked quite like the countryside then. He notes that, instead of being filled with the numerous buildings and bustling campus life we see today, the space between the College of Social Sciences and the Main Library was occupied by green rice paddies.

Self-Motivated Pursuit of Knowledge

“I began with an inner desire for knowledge and I’m still pursuing it to this day.” With a serious look in his eyes, Prof. Mou recalls that a large bookstore selling pirated copies of books was located near the campus when he was a student. He would frequent the store after class in search of books that piqued his interest.

“Over those four years, I used the money I earned from tutoring to buy more than 200 books in their original languages, and I read virtually all of them in detail.” Mou quips that he was unlike students these days, who, when asked to purchase a foreign language book for class, bargain over the price of the book and think they won’t necessarily read the book even if they do buy it.

Continuing his light-hearted teasing, Prof. Mou says that when he was studying at the Department of Chemistry, all of his classmates were highly talented and came from the most elite schools in Taiwan. The department enjoyed a vibrant atmosphere of academic research in

those days, and the students would frequently discuss research topics and make progress together. With a hint of sympathy, he concedes that, “Nowadays, there are too many things that can distract students. It’s not like the old days when the only entertainment we had was going to the movies.”

Chemistry’s Attraction Lies in Limitless Creativity

Prof. Mou dove headlong into the world of chemistry as a student. He never expected at the time that he





would end up spending decades following his passion. While most people consider chemistry to be a dry discipline that is difficult to understand, Mou sees it as a rich and intriguing academic field. Even now, he looks forward to exploring innumerable unknown synthetic chemical compounds.

“Chemistry can create an unlimited variety of molecules and materials,” says Prof. Mou, growing passionate when talking about his true love. He explains that chemists continuously create new things, but that this does not happen haphazardly. Rather, it happens by working with an established theoretical foundation; accordingly, chemists recombine and rearrange various elements according to their wishes.

Mou smiles as he offers another perspective on chemistry, “Chemistry is very useful.” By inventing an amazing new material or creating a drug for the treatment of cancer, chemists sometimes make enormous contributions to society.

Capricious in Youth, Pragmatic with Age

At the same time, researchers are bound to encounter both minor and major setbacks as they follow their research paths.

When asked whether he had ever faced frustrations, Prof. Mou thinks for a moment before slowly replying, “Failure is like this: When we make something that differs from what we anticipated, there are two types of response. The first type of response is to feel disheartened and wonder why we got B when we meant to produce A; the second type of response is ‘Producing B is not bad either.’” Mou releases a hearty laugh upon making this statement.

Prof. Mou’s goals have changed over the years. Filled

with a capricious ambition in his youth, Mou wanted to understand the reactions of all chemical formulas and give the world a great theory. After turning 40, however, he began to think about more pragmatic matters and switched from theory to experimental research.

Changing Path at 40, from the Theoretical to Experimental

“Around 1990, the department wanted to move its laboratories from the Chemistry Building to Shih-Liang Hall, and suddenly a physical chemistry lab came available that was more challenging and nobody wanted. I took advantage of the opportunity and commandeered this lab,” relates Prof. Mou. He cancelled a few old experiments while initiating several new ones and, after three years of conducting experiments, he published a physical chemistry book based on his work in the lab.

40-Year Career, Calls for Courage

Having reached his 40th year at the Department of Chemistry this year, Prof. Mou tells his students, “Things work themselves out naturally in the end.” He explains that this common saying implies a test of one’s courage and judgment, adding that, by courage, he means the courage to take chances, take on responsibility, and admit mistakes.



Highlights of Prof. Chung-Yuan Mou

Academics and career

- 1970:** Bachelor's degree, Department of Chemistry, National Taiwan University
- 1975:** PhD, Department of Chemistry at Washington University in St. Louis, Missouri
- 1975-1977:** Researcher, University of Oregon
- 1978-1982:** Associate Professor, National Taiwan University
- 1982-present:** Professor, National Taiwan University
- 2004-2007:** Chair, Department of Chemistry, National Taiwan University
- 2012-2014:** Deputy Minister, National Science Council (now the Ministry of Science and Technology), Executive Yuan

Honors and awards

- 1986, 1995, 1997:** Outstanding Research Award, National Science Council
- 1997-2000:** Outstanding Scholar Award, Foundation for the Advancement of Outstanding Scholarship
- 2000-2003:** National Professorship, Ministry of Education
- 2002:** Academic Achievement Award, Chinese Chemical Society
- 2007:** Cozzarelli Prize, National Academy of Sciences, USA
- 2007-2012:** University Chair Professor, National Taiwan University
- 2008:** Scientific Chair Professor, Far Eastern Y. Z. Hsu Science and Technology Memorial Foundation
- 2011:** Chair Professor, Chang Chao-Ting Memorial Foundation
- 2013:** TWAS Prize in Chemistry, The World Academy of Sciences
- 2016:** Academician, Academia Sinica

Research interests

Statistical mechanics: supercooled water
Nanoaperture molecular sieves and their applications
Heterogeneous catalysis
Biomedical applications of mesoporous silica

Books

Original work: *Physical Chemistry Lab* (co-authored with Tze-Jeng Hsu)
Translated works: *The Periodic Table*, *Andrei Sakharov's Memoirs* (co-authored with Huai-Chao Cheng), *Andrei Sakharov's Manuscripts and Letters* (co-authored with Huai-Chao Cheng), *The Dreams of Reason* (co-authored with Chung-Hsien Liang)

Q&A with Prof. Chung-Yuan Mou

Q: Which people have had a profound impact on you?

A: During the time I was pursuing my PhD in the United States, the attitude of my advisor Ronald Lovett toward scholarship and conducting research influenced me immensely. Ronald is focused intensely on research. He would discuss issues related to scholarship with me everyday. We talked about all variety of things about conducting research. Ronald is a very nice person, but he has extremely stringent standards when it comes to logical thought.

Q: What is the greatest accomplishment of your 40-year career as an NTU faculty member?

A: I have made many good friends, whether they were students or academic friends I met at international symposiums. Even now, students I taught in the past sometimes return to see me. I also attend wedding banquets of my former students every year. Especially at my age, to still have young people who want to come and visit me leaves me feeling highly gratified.

Q: Are there any words of wisdom you would like to share with our readers?

A: Things work themselves out naturally in the end. When you fail, there will be many times that you think a disaster has arrived. However, things actually do solve themselves in the end most of the time.

Q: If a graduate student encounters a bottleneck while conducting an experiment, what attitude would you suggest for overcoming the situation?

A: Versatility and multiple talents! It's like painting a wall. You must not have just one brush, but the ability to handle multiple brushes. If you are unable to continue painting this wall, then change to a new wall. You must know when you should make a turn and find a new direction in which to develop that is more appropriate for you.



The official opening of the Joint Research Center for Artificial Intelligence Technology and All Vista Healthcare at NTU

NEW JOINT CENTER TO PROMOTE AI TECHNOLOGY AND AI BIOMEDICINE

NTU and the Ministry of Science and Technology (MOST) held a press conference at the university Administration Building to announce the official launch of the MOST Joint Research Center for Artificial Intelligence Technology and All Vista Healthcare at NTU on January 31.

During the press conference, NTU Interim President Tei-Wei Kuo and Director Youn-Long Lin of the MOST Program Office of AI Innovation Research joined a party of VIPs to formally open the new joint center, which will be based on the NTU campus.

The VIPs in attendance included Profs. Hsin-Hsi Chen and Li-Chen Fu of the NTU Department of Computer Science and Information Engineering, who will serve as the joint center's director and co-director, respectively. Prof. Chen will manage the AI Technology Sub-Center, while Prof. Fu will be in charge of the All Vista Healthcare Sub-Center. The two sub-centers are units of MOST's AI Innovation Research Center.

The current development and application of AI technology is attracting worldwide attention and discussion. MOST, a ministry of the Executive Yuan, is vigorously promoting the AI Innovation Research Program as one of its five major action plans for AI scientific research in Taiwan.

The joint center will coordinate cooperation across multiple sectors and fields, bringing together industry, government, and academia, as well as work on research and medicine. Domestically, the joint center aims to expand the nation's AI

research capacity by nurturing high-level research and development personnel, strengthening the AI industry, and promoting research accomplishments that facilitate social and economic development.

Internationally, the joint center expects that through fostering the publication of high-quality papers, participation in smart technology competitions, and coordination of international conferences, it will create a world-class development platform for AI application materials and technologies, and strengthen Taiwan's global influence.

Through this platform, the joint center also aims to boost the development and validation of various AI applications in biomedical sciences. Using advanced AI technology, the joint center plans to lead local biomedical teams to raise the level of biomedical sciences in Taiwan. Moreover, it will strive to benefit people's health through AI-aided disease assessment and monitoring, disease prevention, patient-centric medical systems, and personalized precision medicine.

Furthermore, the joint center hopes to establish a robust international research cluster focused on AI applications in biomedical sciences to introduce Taiwan's outstanding medical achievements to the world through the growing AI trend.



▲ The exhibition's curator leads a tour on opening day.



▲ The table of contents of Ino Kanori's book *Taiwanese Culture*

EXHIBIT EXPLORES FIELDWORK OF JAPANESE COLONIAL ANTHROPOLOGIST IN TAIWAN

Japanese anthropologist and folklorist Kanori Ino (1867-1925) ventured to Taiwan to conduct anthropological studies during the early years of Japan's colonization of Taiwan (1895-1945). During his stay, he traveled to all corners of the island to conduct on-site field studies, gather oral histories, record local customs, and collect specimens and materials related to Taiwan's languages and material cultures. Having compiled much ethnographical data about Taiwan's indigenous peoples as well as historical

records of the island's Han Chinese, Ino stands out as a major pioneer of anthropological and historical research in Taiwan.

Although the manuscripts and cultural artifacts Ino accumulated during his stay in Taiwan at the turn of the 20th century were first sent to Japan, they were later returned to Taiwan, to be the first collection of materials to be archived at Taihoku Imperial University, the predecessor of NTU, in 1928.

Last year, NTU hosted a book exhibition to commemorate both the 120th anniversary of Ino's island-wide research surveys as well as the 90th anniversary of the establishment of the Ino archives at Taihoku Imperial University. Running from November 10, 2017 to January 12 this year at NTU Library, the well-received exhibition used books to lead visitors along the course of Ino's field surveys.

Special Report



Pleased with the positive response of visitors to the exhibition, the organizers, which included NTU Library, the Department of Anthropology, NTU Museum of Anthropology, NTU Center for Indigenous Studies, and Taiwan Indigenous Peoples Resource Center of the Council of Indigenous Peoples, have organized a follow-up exhibition titled, "Return to the Field: Ino Kanori and the Rediscovery of Taiwanese Culture." The new exhibition makes use of aerial imagery, the DocuGIS geographic information system, and the interactive Story Maps system to offer a more detailed and thorough presentation of the Japanese anthropologist's work in Taiwan.

In addition, the valuable manuscripts from NTU Library archives as well as the specimens and artifacts from the Department of Anthropology, which are on public display for the first time, offer visitors a rare glimpse into the important historical and cultural materials local informants gave to Ino during his journeys around Taiwan.

The exhibition leads viewers on a journey that retraces Ino's footsteps, visiting such indigenous peoples as the Kavalan, Saisiyat, Atayal, Paiwan, Pazeh, and Kaxabu. Moreover, the exhibition presents the perspectives of current members of the indigenous tribes Ino visited, who interpret the Japanese anthropologist's records of their ancestors' languages and cultures and offer important information that he overlooked.



CENTER TO CELEBRATE DECADE OF DIGITAL HUMANITIES RESEARCH



▲ Prof. Chia-Yu Hu of the Department of Anthropology cooperated with the Research Center for Digital Humanities to create the Taiwan Ethnological Collections in Overseas Museums.

The NTU Research Center for Digital Humanities (RCDH) is preparing to celebrate its 10th anniversary in June. Established in 2007, a time when the government was promoting digital archives, the center was initially named the Digital Archives Research Development Center.

Due to the steady improvement of digital infrastructure, the center in 2012 adopted its current name and devoted itself to integrating digital technology and humanities research for the purpose of promoting and facilitating digital humanities research.

Over the last decade, the RCDH has collaborated with numerous scholars and organizations from both on and off campus to carry out its mission of supporting the preservation and research of Taiwan's cultural assets. Its digitization efforts have successfully archived a massive volume of information and materials.

Among the center's most valuable archives are historical manuscripts documenting the field surveys conducted by the Japanese anthropologist Kanorilno in Taiwan over a century ago. In addition, the Tan-Hsin Archives from the brief period Taiwan was officially under Qing rule as well as court records from Taiwan's Japanese colonial era have also been digitized.

Another important collection is the Taiwan Ethnological Collections in Overseas Museums, the product of cooperation between the RCDH and Prof. Chia-Yu Hu of the Department of Anthropology. Prof. Hu traveled to museums around the world to digitize specimens of Taiwanese



▲ The Digital Library and Museum of Buddhist Studies is listed among the 100 Extensive University Libraries from Around the World that Anyone Can Access.

materials that had been collected by Western researchers over the years. Taken from Taiwan during the Japanese colonial era, most of these materials have been held overseas for 50 years or more.

Using advanced design concepts, such as post-classification and contextual analysis, the RCDH has combined the Tan-Hsin Archives, Ming-Qing Taiwanese Archives, and Taiwanese Old Deeds into the single Taiwan History Digital Library, which has won the praise of Taiwanese history researchers.

Additionally, the center has also teamed up with the Taiwan Provincial Consultative Council and Academia Historica to set up the Digital Library of Local Councils Journals and the Academia Historica Digital Archives Search System.

To raise awareness of the concept of digital humanities research, the RCDH has worked with Prof. Hsieh-Chang Tu, Head of the Department of Computer Science and Information Engineering's Digital Archives and Automated Reasoning Laboratory, to design DocuSky, a personal digital humanities academic and research platform. While in the past researchers needed to rely on information management personnel to build databases of their research materials, DocuSky enables researchers themselves to create databases that enable them to search and analyze their data and even generate charts, spatial information, and other forms of data presentation.

DISCOVERY OF NEW CLASS OF GENES EARNS CHAIR PROFESSOR US NATIONAL AWARD



Dr. Howard Y. Chang, a distinguished research chair professor at the NTU Research Center for Developmental Biology and Regenerative Medicine, has been named the recipient of the United States National Academy of Science (NAS) Award in Molecular Biology for 2018.

Dr. Chang has made major contributions to genome science by his discovery of long noncoding RNAs. Pervasive in the human genome, this new class of genes plays a major role in causing cancer metastasis and other human diseases, and is associated with development and aging, as well.

Dr. Chang's discovery of long noncoding RNAs was made possible by his invention of powerful new genomic technologies, such as ATAC-seq and ChIRP-seq. In particular, ATAC-seq has brought revolutionary changes to the field of epigenetics, boosting the ability to map active DNA elements by 1 million-fold in sensitivity and 100-fold in speed.

These new genomic technologies are already widely used by researchers in thousands of labs around the world, and have led to dramatic transformations in the investigation of numerous human diseases and model organisms.

The NAS Award in Molecular Biology is presented to young scientists no older than 45 who are citizens of the United States and have made a recent significant discovery in molecular biology.





Harvard and Other Partners Cooperate on Joint Internationalization Presentations

The Office of International Affairs (OIA) Director for Global Alliances Linda Chang and Executive Secretary Josephine Chiung-Fen Chen traveled to Washington, DC in February to take part in the 2018 Association of International Education Administrators (AIEA) Annual Conference. The OIA delegates' main goal in attending the conference was to join their counterparts from seven elite universities around the world in delivering joint presentations on their new ventures in promoting the internationalization of higher education during the conference's concurrent sessions.

This year's AIEA conference addressed the urgent need for internationalization under the theme, "The Internationalization Imperative in Turbulent Times." Nearly 1,000 higher education international affairs administrators from 47 countries and 46 states in the United States attended the conference, which ran February 18–21.

The delegates from the seven universities that cooperated with the NTU delegates came from major NTU partner universities in five countries. They included Harvard University, the University of Illinois at Urbana-Champaign (UIUC), University of California, Davis (UC Davis), University of British Columbia (UBC), University of Tsukuba, University of Bordeaux, and University of Sydney.

Submissions for the conference's concurrent session presentations are selected through a competitive process. For the last four years, NTU has taken the initiative to invite major partner universities to jointly submit presentations on important issues in international education. This year, all four of the presentations submitted by NTU and its partners were accepted, marking the first year all of NTU's submissions made it to the conference floor.

◀ Nobel Peace Prize laureate Leymah Gbowee delivers the closing speech of the 2018 Association of International Education Administrators Annual Conference.

▼ Representatives of NTU, Harvard, and UBC



During the conference, the OIA's Director Chang and Executive Secretary Chen each delivered two presentations. The titles of the presentations were: "University, Leadership, and Responsibility: Challenges and Strategies in Turbulent Times" (presented in cooperation with Harvard and UBC); "The Impacts of Political and Global Trends on Student Mobility and Enrollment" (UIUC); "Developing Sustainable International Institutional Partnerships" (UC Davis and University of Sydney); and "Breaking Intra/extra-murals for Multilateral Borderless Education" (University of Tsukuba and University of Bordeaux).

Chang and Chen's co-presenters included: Harvard's Administrative Dean for International Affairs, Faculty of Arts and Sciences Margot N. Gill; UIUC's Vice Provost for International Affairs and Global Strategies Reitemetse Obakeng Mabokela; UC Davis's Vice Provost and Associate Chancellor of Global Affairs Joanna Regulska; Founder of International Canada, former UBC International Office Executive Director, and current AIEA Chair Adel El Zaïm; the University of Tsukuba's Vice President and Executive Director for Global Affairs Caroline F. Benton; the University of Bordeaux's Deputy Vice-President of International Relations Laurent Servant; and the University of Sydney's Pro-Vice Chancellor Global Engagement Katherine Belov.

The NTU delegates and their international counterparts received high praise from the audiences at all four of their presentations. Not only did the presentations provide insight into complex issues, they stimulated lively dialogue and discussion, as well.



Delegation Builds Relations with Three Universities in Tokyo

Vice President for International Affairs Luisa Shu-Ying Chang led an NTU delegation to visit three universities in Japan from January 16–19.

The NTU delegates included Prof. Chung-Hsin Lu of the Department of Chemical Engineering, Director of the Tokyo Institute of Technology's Taiwan Alumni Association Tony C. H. Lin (who is a consultant for Lee and Li, Attorneys-at-Law and an alumnus of the Department of Chemical Engineering), and the Office of International Affairs (OIA) Director for Global Alliances Linda Chang.

The delegation visited the University of Tokyo (UT), Tokyo Institute of Technology (TIT), and Tokyo University of Science.

At the UT, the delegation was received by Executive Vice President Masashi Haneda, Prof. Hiroyuki Nakayama of the School of Veterinary Medicine, and Assistant to the President Associate Prof. Takeshi Haga

As UT and NTU are both member universities of the Association of Pacific Rim Universities (APRU) and the Association of East Asian Research Universities (AEARU), Vice President Chang personally extended special invitations to the UT president and vice presidents to attend the annual presidents meetings of the APRU and AEARU to be held at NTU this year. Scheduled for June and November respectively, NTU will host the meetings in connection with its 90th anniversary celebration activities.

During the meeting, the two sides continued talks that began when Prof. Hiroyuki Nakayama visited the OIA last October. Both sides agreed that NTU would host the two universities' third bilateral strategic partner university academic symposium in mid December this year. Emphasizing interdisciplinary research, the symposium will address urgent global issues, such as food safety, energy, and the environment. These are some of the core areas in which NTU has been cooperating with other strategic partner universities over the last four years.

Vice President Chang also suggested a compromise approach concerning exchange students. Students throughout NTU have actively sought opportunities to study at UT as exchange students, particularly students from colleges that cooperate closely with counterparts at UT, such as the College of Social Sciences, College of Bioresources and Agriculture, College of Life Science, and College of Medicine.

Chang stated the hope that UT would raise the number of NTU exchange students it accepts. As a way to balance the numbers of exchange students between the two universities, she encouraged UT students to study at NTU and take advantage of its short-term and laboratory courses.

At TIT, officials there expressed their deep interest in offering dual degrees and double degrees with NTU, and requested that NTU suggest potential cooperation models.

The delegation visited TIT's School of Engineering, School of Materials and Chemical Technology, and School of Environment and Society, where they signed college-level student exchange agreements and discussed the possibility of setting up dual Bachelor's degree programs with the NTU College of Engineering.

International Affairs Administrators Develop Professional Skills at Workshop



▲ The Senior Administrators Forum

More than 100 international affairs administrators from 23 universities around the world came to the NTU campus to develop their professional skills and career knowledge at the 13th University Administrators Workshop (UAW) on March 7–8.

The university's historic Administration Building was chosen to be the workshop venue to give the international participants a feeling of NTU's rich past. Indeed, the Office of International Affairs (OIA) actively sought to host this year's UAW at NTU because we will celebrate our 90th anniversary this year.

Kyoto University, one of NTU's main strategic partners, established the UAW 13 years ago. The workshop serves as a platform for exchanges and discussions regarding the promotion and management of the internationalization of higher education.

Representing institutions of higher learning from 12 countries, the participants work at several of the world's most elite universities, including Kyoto University, Tokyo Institute of Technology, Chulalongkorn University, Hong Kong University of Science and Technology, University of Hong Kong, University of California, Davis, University of Sydney, University of Bordeaux, Korea University, National University of Malaysia, Monterrey Institute of Technology and Higher Education, and



▲ Participants in the 13th University Administrators Workshop pose for a group photo.

National Taiwan Normal University.

The main theme of the workshop was "Fostering Sustainable Talent Systems for University Administrators Responsible for International/Global Activities and Strategies." The three sub-themes were employment and promotion systems, knowledge management, and on-the-job competence.

The participating international affairs administrators discussed a variety of important topics under these themes, including approaches to improving employee retention rates for international affairs staffers, ways to use big data to build databases that boost administrative efficiency, and methods of enhancing the cross-cultural communication and teamwork skills of administrative personnel.

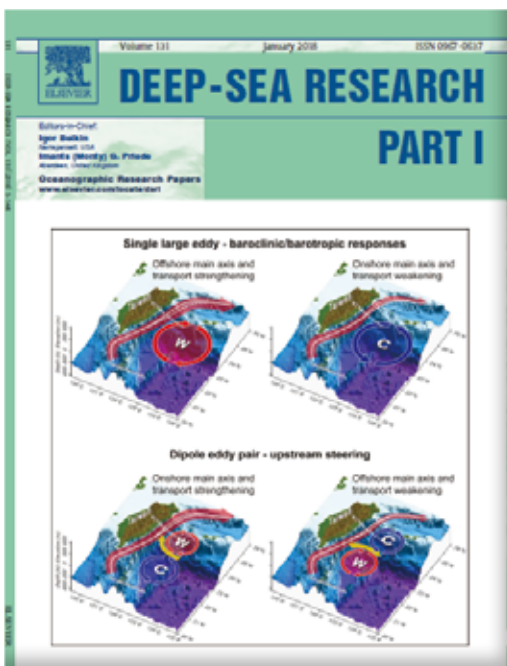
Vice President for International Affairs Luisa Shu-Ying Chang extended a personal welcome to the international administrators at the opening ceremony of the workshop. On the first day, cross-group discussions and exchanges as well as a poster presentation session were held.

The OIA organized a poster design competition in hopes that the participants would benefit by learning about the management strategies and best practices of their counterparts.

The Senior Administrators Forum was held on the workshop's second day. Speakers at the forum included Vice President Chang as well as senior administrators from Kyoto University, University of Hong Kong, University of California, Davis, Monterrey Institute of Technology and Higher Education, and Prince of Songkla University. The speakers exchanged views on two topics: the roles of international affairs offices in the internationalization of higher education and career development for international affairs administrators.

The final event of the workshop was group presentations. The groups presented the fruits of their discussions over the course of the workshop, and addressed the development of blue ocean strategies for higher education and internationalization.

Journal Cover Article Explains Flow Variations in the Kuroshio Current



▲ The cover of the journal *Deep-Sea Research I*, Volume 131, January 2018.

A study explaining flow variations in the Kuroshio current in the Pacific Ocean east of Taiwan was published as the cover article in the January issue of the academic journal *Deep Sea Research Part I: Oceanographic Research Papers*. The study's findings have implications for the development of ocean current energy, management of fisheries, study of global climate change, and understanding of the evolution of typhoons.

The article, "Zonal Migration and Transport Variations of the Kuroshio East of Taiwan Induced by Eddy Impingements," explains the basic physical dynamics underlying the meandering flow and transport variability of the Kuroshio current east of Taiwan.

Prof. Ming-Huei Chang, principal author, and his research team at the Institute of



▲ Prof. Ming-Huei Chang (left) supervises the deployment of an ADCP mounted in the orange buoy (right) aboard the R/V Ocean Researcher III.

Oceanography relied on the accumulation of a massive dataset to arrive at their comprehensive conclusions. To collect data for the study, the team measured the Kuroshio current continuously for an unprecedented 23 months using three acoustic Doppler current profilers moored approximately 50 km south of the PCM-1 line.

The Kuroshio current is the western boundary current in the Northwest Pacific Ocean. It transports a tremendous volume of heat, salt, and water mass from the east of Luzon Island to the south of Japan, passing the east coast of Taiwan en route. It exercises a major impact on the marine environment, weather, and global climate change.

Research on the Kuroshio is important because it helps us to understand the dynamics of the Kuroshio current's variability and how to predict its probable influence on the marine environment and weather/climate.

The earliest long-term data set concerning the Kuroshio current was collected by an array of moored current-meters placed along the PCM-1 line in the East Taiwan Channel during the World Ocean Circulation Experiment conducted from September 1994 to May 1996. Such data collection at the PCM-1 provided insight into the variability of the Kuroshio current, and supported further studies of the Kuroshio current for the past 20 years.

The three main highlights of Prof. Chang's findings are:

- (1) The Kuroshio transport is 4.3 Sv (1 Sv = 1 million cubic meter per second) lower than that observed at the PCM-1 line, presumably due to interannual variations related to the abundance of mesoscale eddies in the Subtropical Counter Current region.
- (2) The observations exhibit more energetic Kuroshio variability in its axis migration at the KTV1 than at the PCM-1 line. The relatively stable Kuroshio in PCM-1 is attributed to the presence of the East Taiwan Channel and the Ryukyu Islands chain, where the topography behaves as a regulator that dampens the interaction with eddies in PCM-1.
- (3) Transport variability east of Taiwan is mostly caused by Kuroshio-eddy interactions.



Turn off the lights when you leave a room, carry reusable eating utensils, ride a bike instead of a motor vehicle whenever possible, use recycled paper, and reduce electricity usage during peak hours: these are just some of the practical ideas that students offered when they were called on by the NTU Student Association's Sustainability Division to exercise their imagination and powers of observation in coming up with measures and practices to help make this a more sustainable campus.

The Sustainability Division presented the students' suggestions as "100 Sustainable Living Ideas for the NTU Community." They divided the suggestions into four categories: low-carbon campus, waste-reduction campus, ecological campus, and animal-friendly campus. The Sustainability Division has given much thought to these problem areas since its establishment just last year.

The NTU Student Association established the Sustainability Division in an effort to prioritize campus environmental issues and policies, and to encourage students themselves to start taking practical steps to live in more environmentally friendly and sustainable ways.

The division's director, Meng-Hui Lin, a graduate student at the Sustainable Development Laboratory of the Department of Bioenvironmental Systems Engineering, recalls that when she was the president of the student club, NTU Roots and Shoots, she found that the club's efforts to promote environmental issues made little or no impact. Now, with the backing of the NTU Student Association,

New Student Association Division Promotes Campus Sustainability

she finds it much easier to initiate projects and generate considerable student interest.

By establishing the Sustainability Division, NTU became the first university in Taiwan to have a unit dedicated to addressing sustainability issues. Government agencies and non-governmental organizations alike have taken note. Lin reports that after she was named Director of the Sustainability Division, she was invited to meet with officials at Taipei City's Department of Environmental Protection who were eager to voice the city government's support for campus sustainability.

The division has also cooperated with the NGO 350.org, which is dedicated to the reduction of carbon emissions that contribute to climate change. They also review the investments of NTU's endowment fund to make sure the fund does not support enterprises that produce excessive pollution and high-carbon waste. They even called on the candidates for the NTU presidency to pledge to ensure the fund would only make investments in climate friendly enterprises. Several of the candidates for NTU president indeed promised to review the fund's investments to ensure they were consistent with this goal.

The division has also developed graphic visualizations of the campus building electricity meters and conducted energy conservation workshops. Also, it has initiated a campus biodiversity survey that aims to measure the distributions and numbers of plant and animal species observed on campus every three years.



Teaching and Learning



New Book Addresses the Implementation of Social Justice in Taiwan

Our nation's constitution is imbued with a deep spirit of social justice. Based on the principle of furthering the people's well-being and implementing social justice, the social justice it seeks is a type of substantive equality. The constitution is not aimed at simply prohibiting unreasonable differential treatment; rather, it seeks to proactively facilitate the elimination or reduction of such inequality in the country.

Yet, how does this noble aim play out in reality? The wealth gap continues to widen, citizens are subject to an unfair tax system, and educational resources are allocated unevenly. Why is there such an enormous divide between the way things are and the way things should be for achieving a welfare state? How do we bridge this gap to bring about social justice and realize the ideal of a welfare state?

The book, *Searching for the Welfare State: Social Justice Theory and Its Institutional Implementation*, which addresses these issues in depth was published by NTU Press in January. The book's editor, Tzong-Li Hsu, serves as the president of Taiwan's Judicial Yuan as well as an adjunct professor at the NTU College of Law. The book includes chapters by 12 public



intellectuals with different areas of specialization who approach these issues from a variety of perspectives to address the institutional implementation of social justice in different areas of society.

The book covers three realms of social justice: the constitution and social justice, protecting the disadvantaged and social justice, and public policy and social justice. Moreover, the authors address the issues of social justice from three perspectives: (1) the legal foundation of the constitution of a welfare state, (2) the implementation and maintenance of protections for the disadvantaged in a welfare state, and (3) critiques of current public policy.



Taiwan and Hong Kong Students Present Papers at Public Affairs Conference



The 2018 Public Affairs Paper Presentation Conference was held at the College of Social Sciences on January 16. The conference was jointly organized by NTU's Graduate Institute of Public Affairs and the Department of Public Policy of the City University of Hong Kong (CUHK).

The conference commenced with opening remarks by Director Tsai-Tsu Su of the Graduate Institute of Public Affairs and Prof. Chih-Wei Hsieh of CUHK's Department of Public Policy. Both speakers expressed the hope that this rare opportunity for cooperation between these two institutions would help broaden the outlooks of the participating Taiwanese and Hong Kong students, as well as provide a platform for mutual growth.

Six graduate students from the Graduate Institute of Public Affairs presented papers during the morning session, which was moderated by Profs. Chwen-Wen Chen and Thomas Ching-Peng Peng of the Graduate Institute. The students presented their re-search findings on a number of major issues in public administration, such as the con-troversial dismissal of junior high school teachers, representative bureaucracy, tax ex-penditures, deliberative democracy, collaborative governance, and energy policy.

The students and faculty members in the audience were impressed by the breadth and depth of the student presentations. The moderators praised the students' research and critical thinking, but also suggested that they take the thoughts and suggestions of the commentators and audience members into consideration in order to improve the depth and quality of their Master's theses.

In the afternoon session, the visiting CUHK students presented their perspectives on the differences between Taiwan's and Hong Kong's governmental approaches to de-veloping smart cities. The Graduate Institute of Public Affairs' Profs. Mei-Jen Hung and Hsini Huang provided commentary on the presentations. The professors com-mended the students for moving beyond the theoretical issues and taking on the concrete issues and challenges faced by city planners.



- 1 The poster for the presentation ceremony for Sculpture and Poetry
- 2 Sculpture and Poetry
- 3 Italian sculptor Aron Demetz
- 4 Aron Demetz's sculpture *Newborn*



Italian Sculptor's Works Displayed on Campus

The NTU Center for the Arts joined hands with Gallery Sun to bring an exhibition of works by the Italian sculptor Aron Demetz to the NTU campus. Several of his works were displayed at the Odeum on March 10 while a larger exhibition of his sculptures was held at the College of Social Sciences from March 10 to April 30. The exhibition was one of the many activities and events held in connection with this year's NTU Azalea Festival, which ran for the entire month of March.

Demetz was born in 1972 in Vipiteno, a small town in Northern Italy renowned for its ancient tradition of religious wood carving. He studied at the Academy of Fine Arts Nuremberg in Germany under Prof. Christian Höpfner. The sculptor gained international recognition for his exhibition in the Italian Pavilion at the 53rd Venice Biennale in 2009.

Demetz repeatedly examines and reflects on the relationship between humans and nature. He has gradually moved beyond the received notion of absolute independence in traditional Western culture and focused instead on the idea of relative relationship between the

internal and external, in his quest to interpret the essence of life. Demetz works with wood as his primary material, drawing upon its textures and special characteristics as well as how it transforms through a variety of natural processes.

Demetz's sculptures are displayed in museums and fine art galleries throughout Europe, and have been exhibited and collected here in Taiwan, as well.





杜鵑花節
2018.3.1~3.31
杜鵑花開 夢想盛開
Azaleas bloom, Dreams Come True.



AZALEAS BLOOM, DREAMS COME TRUE

Every March, innumerable azaleas on campus erupt into a veritable explosion of multiple shades of pink, red, and white. The annual blooming of our university flower heralds the auspicious beginning of the Azalea Festival, a month-long celebration of NTU campus life featuring events and activities for the NTU community as well as the general public.

This year's Azalea Festival officially commenced with a festive opening ceremony at the NTU Sports Center on March 10.

The festival offers a wide range of activities, from exciting rock shows to fascinating lectures. The festival highlights, however, are the two-day Department Expo and Student Club Expo for high school students from around the nation who aspire to study at Taiwan's premier university. These two events, held on March 10 and 11, are designed to introduce academic and campus life at NTU to aspirants who dream of one day studying here.



內付
國郵資已付
臺北郵局許可證
臺北字第4272號

Publisher: Tei-Wei Kuo
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