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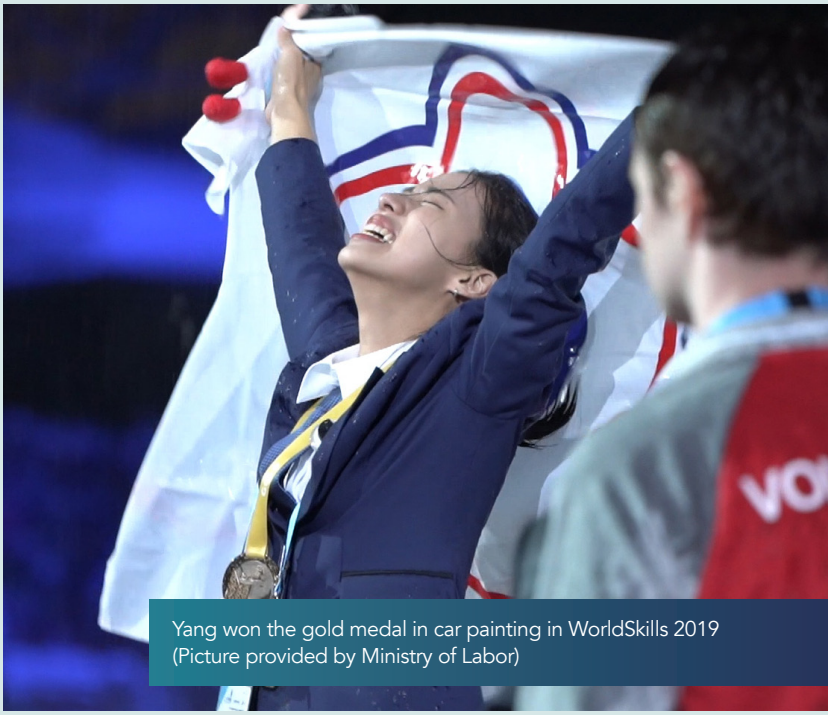
Taipei Tech Student Claims Car Painting Gold Medal in WorldSkills Kazan 2019



Yang won the gold medal in car painting in WorldSkills 2019
(Picture provided by Ministry of Labor)

Taipei Tech vehicle engineering student Yang Ting-Yu won the gold medal in car painting in WorldSkills 2019, an international competition that accolades young, skilled professionals. WorldSkills 2019 took place in Kazan, Russia, and Taiwan ranks the fourth among sixty-three countries in overall performance by receiving five gold medals, five silver, five bronze, and twenty-three medallions for excellence.

Yang is currently a junior vehicle engineering student in Taipei Tech's co-op program. Her interest in car painting was sparked after she entered BMW Taiwan as an apprentice in her sophomore year. With support from the company, she changed her speciality to car painting and began her training.

From the initial training to winning a gold medal, it only took Yang one and half year. When she entered the competition, though, Yang was expecting an honorable mention at the most. She thinks the fact that WorldSkills 2019 did not announce any specifics prior to the actual competition was a great advantage to her. Since the actual competing topics remained unveiled until the competitors arrived at the venue, none of them could have practiced extensively in certain areas. Yang said that the competition this year feels a lot like working in a normal car repair facility, in which you need to be good at all aspects of car painting in order to fulfill customer's needs. The topics this year include bumper painting, inner and outer hood spray, and wheel rim painting, among others.

Yang recalled that her family were worried about potential injuries and paint toxicity when she first picked up car painting. She was able to provide facts about the advanced protective gear that is used in the industry and convinced her family to support her. They were a strong supporting force during her preparation for WorldSkills 2019.

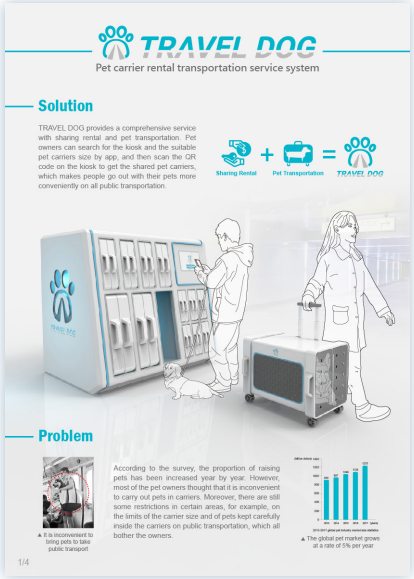
Yang focused on finishing her work during the competition
(Picture provided by Skills for U.)

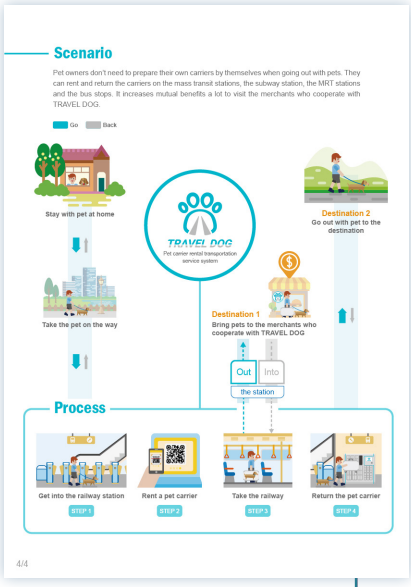
Car painting has traditionally been a male-dominant job. Yang, however, has never experienced any negative bias at work. Her colleagues think she is very detail-oriented and is a great fit for the job. Her colleagues have all been very supportive and willing to guide and teacher her everything about car painting.

For the future, Yang will remain in the car industry. Her short-term goal is to finish her degree, and she will keep exploring the different possibilities in this industry.

Travel Dog, A Pet Carrier Rental Service, Won 2019 Red Dot Award

There are 4,218 entries from forty-eight countries submitted for review in 2019, and Travel Dog was accorded an honorable mention





Travel Dog aims to solve this problem by introducing pet carrier rental stations to be placed in train stations

Travel Dog, a public transportation pet carrier rental service concept conceived by Taipei Tech industrial design students, won honorable mention in 2019 Red Dot Award: Design Concept. The student trio—Peng Yicheng, Tong Minru, and Xiao Weijie—came up with the idea based on their own experience of needing to own pet carriers of various sizes in order to bring their dogs to ride in public transportation.

Currently, each of the rail transportation systems in Taiwan, including Taiwan Rail, Taiwan High Speed Rail, Taipei Metro, and Kaohsing Metro, has different regulations on the size of pet carrier. This difference in size regulations creates a unique problem for pet owners who need to carry their pets and transfer between these different systems to get to their destination.

Travel Dog aims to solve this problem by introducing pet carrier rental stations to be placed in train stations. Each station has pet carriers of three sizes, suitable for small-, mid-, and large-size pets. Pet owners can reserve a pet carrier through an app on their phone and pick up the pet carrier by scanning a QR code on site. To return, pet owners only need to fold up the carrier and put it back to the rental station. Upon return, the rental station automatically cleans and sterilizes the carrier. A team of maintainers will also periodically inspects each rental station to do overall sterilization and replace carriers.

The design team believe Travel Dog will bring great convenience for pet owners and ensure the safety of both pets and passengers. Through the safety and convenience that Travel Dog brings, the team also aims to make more places pet-friendly.

Huang Meng-Fan, Taipei Tech Industrial Design Department lecturer and adviser to the design team, says carrying pets in public transportation is a less-explored design area. Travel Dog is a complete solution that involves logistics, app design, and product design. They are now looking into securing potential partners to bring the concept into reality.

Red Dot Award: Design Concept was established in 2005 and awards design visions and concepts. There are 4,218 entries from forty-eight countries submitted for review in 2019, and Travel Dog was accorded an honorable mention. The design team received the award in Singapore on September 25, and their design concept is also exhibited in the Red Dot Design Museum Singapore.

Taipei Tech Alumna Dr. Margaret M. Wu Elected NAE Member

Dr. Margaret M. Wu, Taipei Tech alumna and retired Senior Scientific Adviser of ExxonMobil Research and Engineering Company, elected for her contribution in synthetic lubricants.

The National Academy of Engineering (NAE) of the US hosted its 2019 Annual Meeting on October 6, welcoming its newly-elected members. Dr. Margaret M. Wu, Taipei Tech alumna and retired Senior Scientific Adviser of ExxonMobil Research and Engineering Company, was among the new members, elected for her contribution in synthetic lubricants.

Wu graduated from Taipei Tech (then National Taipei Institute of Technology) with a degree in chemical engineering in 1970 and earned her PhD from the University of Rochester in 1976. She had worked in American Cyanamid Company prior joining Mobil Chemical, where she did research in petrochemistry. In 2002, she was promoted to Senior Scientific Adviser in ExxonMobil Research and Engineering Company. A Senior Scientific Adviser is the highest-ranking researcher in the company, and Wu is the first woman to earn this title.

One of Wu's major commercialized research is the synthetic material trademarked as SuperSyn, used to produce the world-famous Mobil 1 motor oil. This oil takes advantage of the patented anti-friction and anti-wear technology in SuperSyn to protect engine and reduce fuel consumption in both high- and low-temperature environments. This consequently reduces gasoline consumption and exhaust. Mobil 1 is now the designated motor oil of sports car manufacturers such as Porsche, Mercedes-AMG, Aston Martin, Nissan GT-R, and McLaren.

In her interview with Taipei Tech, Wu talked about her approach to maintain creativity. She pointed out it's important to keep an open mind when you examine a problem. It is as important to have a solid foundation of knowledge and training in your specific field. "And finally, you need to practice formulating different solutions to a problem in your mind and do real experiments on them. This is the only way to find the best solution."

Wu also appreciates the solid technical education and training that Taipei Tech provides. She said, "Our instructors have rich experience in the industry, which is not common in every university." Wu recalls a time when an engineer from Taiwan Sugar Corporation gave a lecture, in which he pointed out the importance of critical thinking and applying the knowledge learned in textbooks to solve problems. "I find the engineering training I had at Taipei Tech particularly useful when I need to solve petrochemical and petroleum refining issues."

"You need to practice formulating different solutions to a problem in your mind and do real experiments on them. This is the only way to find the best solution." Wu said.

Taipei Tech Held APEC 2019 Vocational Education and Entrepreneurship Events

16 representatives from 10 APEC economies attended Workshop on Regional Industry-Academia Collaboration for Talent Development

In partnership with the Ministry of Education, Taipei Tech English Department held two APEC events this year. The first was Workshop on Regional Industry-Academia Collaboration for Talent Development, held on September 16 through 18, and the second Forum on Digital Innovation and Youth Entrepreneurship, held on October 7 through 9.

Sixteen representatives from ten APEC economies attended Workshop on Regional Industry-Academia Collaboration for Talent Development this year. This workshop focused on topics related to APEC initiatives this year—long-term care, food technology, and electrical engineering. The three-day event included one forum, three school visits, and one business visit.

In the forum, Prof. Dong Sun Park, head of APEC Human Resources Development Working Group, gave an opening address. Representatives from Russia, Vietnam, Hong Kong, and Australia shared their industry-university cooperation experience, and representatives from three technical universities in Taiwan shared their co-op models in the said three fields. Dr. Han Pi-Chi of National Kaohsiung Normal University also gave a speech on women's career development. Representatives also visited three universities, including Taipei Tech, to better understand the operational models and facilities these school implement to integrate instruction and practical training.

Forum on Digital Innovation and Youth Entrepreneurship invites government officials, company founders, venture capitalists, and other professionals to talk about entrepreneurship-related policies and practices in Taiwan. This year, nearly fifty students and young entrepreneurs from fifteen APEC economies, including the US, Canada, Russia, New Zealand, and Australia, participated in the three-day event.

Audrey Tang, Digital Minister of Taiwan, gave the keynote speech and shared government practices of achieving continual development in fields of innovation and entrepreneurship. Directors of U-Start and FITI, two government-backed entrepreneurship programs, also introduced the programs and invited domestic entrepreneurs and venture capitalists to utilize these platforms.

During the event, founders of several startup companies shared their experience on finding and connecting with their user base. One special session was dedicated to startup pitch demo and one to finding startup resources in Asia. Dr. Yang Yun-Hua, Taipei Tech English Department Chairperson, moderated a female entrepreneurship panel session on the second day of the event, in which female CEOs of three startup companies discussed their stories in founding and running companies. The event also included visits to cultural sites and startup businesses.

Taiwan has been named "super innovator" by the World Economic Forum. Through holding these APEC events, Taipei Tech is demonstrating Taiwan's entrepreneurship energy and innovation ecosystem to the world.

Taipei Tech and UC To Roll Out Joint Engineering Dual-degree Program

John Weidner, Dean of the University of Cincinnati (UC) College of Engineering and Applied Science, and his team visited Taipei Tech on September 19. During the visit, the two sides signed agreement of the implementation of the EUGINE (Elite Undergraduate to Graduate International Experience Program) joint dual-degree program.

Yang Shih-Hsuan, Provost of Taipei Tech, said that most of current dual-degree programs require undergraduate students to go abroad and take classes in the partner university in their junior or senior year. With EUGINE, Taipei Tech engineering students can complete six of the eighteen required credits from UC in Taiwan and go abroad and complete the remaining twelve credits at UC, effectively giving students more flexibility.

Students who want to participate in this program need to have English proficiency requirements of TOEFL-iBT 80, IELTS 6.0, or PERSON 47. Taipei Tech will offer programs to prepare students to reach the required English proficiency. In addition, students who are in this program must maintain a GPA of 3.

Upon graduation, Taipei Tech students will also be able to apply for one-year training-oriented and two-year research-oriented master's programs at UC. With recommendation letters from two faculty members, students with extraordinary research capability can also apply to enter the five-year PhD program at UC. With the exception of bio-medical programs, Taipei Tech students are also exempted from the GRE requirement. The six credits that Taipei Tech students have earned at Taipei Tech, together with six credits that students have earned from UC, will also be waived when they enter graduate programs in UC.

Taipei Tech is the first higher vocational institute in Taiwan and has been an important force in providing training for Taiwan's workforce for more than one hundred years. Taipei Tech is committed to establish partnership with world-renowned universities and to encourage students to participate in exchange programs to broaden their horizon. UC is the birthplace of the co-op education model in the US. With nearly two thousand cooperative companies, UC has been attracting outstanding students from all over the world every year. The career services at UC is also highly ranked among US universities.

UC and Taipei Tech started its partnership in 2018 with the establishment of International School of Smart Sensing Systems. With EUGINE, Taipei Tech aims to make an international education more accessible to its students.

With EUGINE, Taipei Tech engineering students can complete six of the eighteen required credits from UC in Taiwan and go abroad and complete the remaining twelve credits at UC, effectively giving students more flexibility

Sunbird Software to Expand Partnership with Taipei Tech

Sunbird will invest TWD$20 million in building the Sunbird DCIM Research Center at Taipei Tech in the next five years, establishing a base for DCIM research and training

Taipei Tech and Sunbird Software signed a partnership agreement on October 3. Wang Sea-Fue, President of Taipei Tech, and Hsu Ching-I, Executive President of Sunbird Software, signed the agreement in the ceremony. With this agreement, Sunbird will invest TWD$20 million in building the Sunbird DCIM Research Center at Taipei Tech in the next five years, establishing a base for DCIM (data center infrastructure management) research and training.

Data centers house computer servers and telecommunication equipments and are typically the most energy-consuming aspect in the information and communication technology industry. According to estimates, data centers consume about 2% of world's electricity usage, which is equivalent of 1.5 times of Taiwan's total electricity output in 2018. According to Sunbird, engineers typically keep the temperature of data centers at 18°C to ensure performance stability. DCIM software can finely adjust temperature based on data gathered from a data center and allows data centers to operate at an average of 25°C, effectively saving companies large energy bill.

Hsu of Sunbird pointed out that DCIM software is sophisticated and requires engineers with strong and solid training. Drawing on the current successful partnership with Taipei Tech, Sunbird is now expanding the partnership to establish the Sunbird DCIM Research Center.

Wang of Taipei Tech said that smart energy technologies is one of the focused research areas of Taipei Tech, and it fits perfectly with what Sunbird is doing. Sunbird DCIM Research Center will be the first industry partnership project of the new Taipei Tech Research Institute. Taipei Tech will work closely with Sunbird to provide research opportunities for faculty members and internship and learning opportunities for students.

Based on the agreement, Taipei Tech and Sunbird will engage in research projects and a student internship and advising project called the Integrated Capstone and Internship Project (ICIP). Through ICIP, Sunbird will provide internship opportunities, and engineers from Sunbird will also co-advise Taipei Tech computer science students in their senior projects. Fourteen students have signed up for ICIP this year.

According to a recent survey by IT research and advisory firm Gartner, DCIM is a promising and fast-growing market, and Sunbird is rated the best among the top four DCIM companies in the world. Sunbird is originally the DCIM software division of Raritan, a global manufacturer of data center components, and became an independent company dedicated to DCIM in 2015. Customers of Sunbird include Comcast, Merck, Disney, and Morgan Stanley.

Guatemala VP Visited Taipei Tech, Expressed Interest in Forming Academic Partnership

Excmo. Sr. Dr. Jafeth Ernesto Cabrera Franco, Vice President of Guatemala, and his wife Excma. Sra. Genara Elizabeth Cortez de Cabrera visited Taipei Tech on October 9. They were received by Taipei Tech President Wang Sea-Fue. The two sides exchanged thoughts on future partnership.

In his speech, Cabrera said that there is currently no partnership between Taipei Tech and any university in Guatemala and expressed interest in a partnership in near future. Cabrera also visited Taipei Tech Arts & Cultural Center and was impressed with the colored glass sculptures and metal sculptures that were being exhibited. He also gave praise to Taipei Tech's equal emphasis on engineering education and cultural education. Excmo. Sr. Emb. Willy Alberto Gomez Tirado, Guatemala ambassador to Taiwan, who had visited Taipei Tech earlier this year, accompanied the Vice President during the visit.

Wang of Taipei Tech indicated that there are hundreds of international students from fifty countries currently studying at Taipei Tech. They include five undergraduate and graduate students from Guatemala. Being one of the top technical universities in Taiwan, Taipei Tech provides quality education and rich academic resources, especially in fields such as mineral sciences and disaster prevention technology that fit the needs of Guatemala. Wang hopes Taipei Tech will reach partnerships with top universities in Guatemala in the near future, and the two sides can start research and student exchange programs.

Yang Shih-Hsuan, Provost of Taipei Tech, pointed out that Taipei Tech has previously offered subject-specific programs for the Gambia, Eswatini, and Saudi Arabia, including programs in petroleum technology, electrical engineering, urban planning, and civil engineering. Many of the graduates form these programs later hold key positions in government organizations and companies.

Skarleth Michelle Cuevas de Paz, Taipei Tech business management student from Guatemala, said that the fact that many courses are taught in Chinese encourages her to learn the language and therefore appreciate the culture. "I am becoming more adjusted to the life in Taiwan, and I am very happy studying at Taipei Tech."

Leon Aguilar Francisco Javier, Guatemalan student in Taipei Tech's International Master Program in Financial Technology and Innovation Entrepreneur, has lived in Taiwan for six years. "I really like Taiwan's society and culture. I hope that after graduation, I can bring back what I have learned here, including the values and culture that Taiwan has to offer."

Taipei Tech provides quality education and rich academic resources, especially in fields such as mineral sciences and disaster prevention technology that fit the needs of Guatemala