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National Taipei University of Technology

Taipei Tech Post



森林入生活
FOREST IN LIVING
TAIWAN WOODS DESIGN

國產木材設計展

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協辦單位：
國立臺北教育大學、美術館、有線電視、
北投大木藝中心、豐國史料大木藝中心、
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宋恭源獎學金—國立臺北科技大學

2022啟動記者會

Scholarship

主辦單位：TAIPEI • 宋恭源教育基金會

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宋恭源獎學金計畫合作備忘錄

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宋恭源

光寶集團董事長暨光寶科技創辦人 宋恭源

Taipei Tech and the Soong Kung-yuan Education Foundation announced the creation of the "Soong Kung-yuan Scholarship", providing 18.66 million NTD annually to economically disadvantaged students at Taipei Tech.

Soong Kung-yuan Education Foundation Announces \$18.66 Million in Scholarships for Economically Disadvantaged Students at Taipei Tech

Taipei Tech and the Soong Kung-yuan Education Foundation announced the creation of the "Soong Kung-yuan Scholarship" at a ceremony on October 31. The scholarship will provide 18.66 million NTD annually to economically disadvantaged students at Taipei Tech.

Soong Kung-yuan, who holds an honorary doctorate from Taipei Tech and who founded Lite-On Technology, remembered his childhood as the oldest son and grandson in his family. "I had to work and contribute to the family finances when I was only ten years old," he said. After he enrolled at the National Taipei Institute of Technology (the predecessor of Taipei Tech) and moved to Taipei City, it was a transformative experience for him. He graduated at the top of his class, and his parents realized that education was the key to changing the fate of their family.

Soong emphasized that talented individuals are Taiwan's future. "For decades, we have had many wonderful teachers who have provided an excellent education to students, many of whom have made significant contributions to the society," he said. "They have helped make Taiwan the well-known tech island it is today." Recognizing that it can be difficult for some people to afford higher education, Soong decided to set up a scholarship to help more students.

Wang Sea-fue, Taipei Tech President, indicated that starting from 2022, \$18.66 million NTD will be provided each year to support forty economically disadvantaged and high-potential students at Taipei Tech. "This is the highest amount of scholarship fund given to undergraduate programs in Taipei Tech," said Wang, "and I believe it will greatly help many students."

Wang further noted that to manage the Soong Kung-yuan Scholarship, there is also a counseling system established to award the teachers who provide extra guidance and encouragement to the students. "It is our hope that the students who have received the scholarship can support each other like family members and pay it forward in the future," said Wang.



The newly-established Taipei Tech Innovative R&D and Talent Cultivation Base, located in Taoyuan Hutoushan Innovation Hub, consists of four research centers focused on aerospace engineering, Internet of Things (IoT) technology, smart driving, and smart healthcare

Taipei Tech Unveils Innovative R&D and Talent Cultivation Base at Taoyuan Hutoushan Innovation Hub

On November 11th, Taipei Tech held the opening ceremony of the Taipei Tech Innovative R&D and Talent Cultivation Base. The ceremony was attended by Wang Sea-fue, Taipei Tech President; Cheng Wen-tsan, Taoyuan Mayor; Jing-Yang Jou, National Central University President; and Kuo Yu-hsin, Director-general of Taoyuan Department of Economic Development. The newly established base, located at the Taoyuan Hutoushan Innovation Hub, consists of four research centers focused on aerospace engineering, Internet of Things (IoT) technology, smart driving, and smart healthcare.

President Wang indicated that Taipei Tech's Innovative R&D and Talent Cultivation Base has combined the strength and expertise of the faculty of the Taipei Tech College of Mechanical & Electrical Engineering, the College of Engineering, and the College of Electrical Engineering and Computer Science. "To echo the government policy on accelerating digital transformation, Taipei Tech has collaborated with partner industries, startup companies, and Taoyuan local enterprises and institutes to conduct innovative and technological development and nurture forward-thinking talents," he said.

The research center on aerospace engineering will work with the National Space Organization and the local space industry to conduct research and development of low-altitude orbital satellite communication and to promote the commercialization of space technology. The ultimate goal is to build a community of companies that can meet the demands of different aerospace industry needs.

The smart healthcare research center focuses on the rapid commercialization of high-end smart medical materials. The center is now working on smart implant materials and the design of a clinical trial of AI-assisted diagnoses.

Mayor Cheng indicated that Taoyuan Hutoushan Innovation Hub used to be a Taiwan Coast Guard training center. After years of renovation, it is now an innovative hub with a Smart Self-Driving Training Base and IoT Center. He welcomes Taipei Tech to take part in the Hutoushan Innovation Hub and to facilitate more opportunities for academia-industry collaboration projects. "I believe that Taipei Tech will bring in abundant R&D resources to advance talent cultivation and industrial development," said Cheng.

New Research Center to Expedite Commercialization of High-end Smart Healthcare Products

Taipei Tech held an unveiling ceremony on December 14th to celebrate the establishment of the new Smart Healthcare Research Center, which aims to accelerate the commercialization of high-end smart healthcare products. Guests present at the ceremony included Shih Chung-liang, Deputy Minister of Ministry of Health and Welfare; Lin Ching-hung, Deputy Secretary-General of Taiwan-Japan Relations Association; and Liang Huang-chien, Chairman of Wiltrom Medical.

Deputy Minister Shih indicated that it is crucial for the smart healthcare industry to incorporate modern technology such as the Internet of Things (IoT), wearable devices, Virtual Reality (VR), and Artificial Intelligence (AI). "To better manage smart healthcare devices, we have implemented the Medical Devices Act, and the Taiwan Food and Drug Administration has already set up the Smart Medical Device Office to provide one-stop consultation," said Shih. "I believe that Taipei Tech's visionary and innovative Smart Healthcare Research Center will expedite talent cultivation and effectively consolidate the smart healthcare industry chain."

Taipei Tech's Vice President, Yang Shih-hsuan, stated that Distinguished Professor Fang Hsu-wei, who is also the director of the Smart Healthcare Research Center, has extensive experience in the commercialization and certification of healthcare and medical products. Fang has successfully brought several high-end medical products to market, including an ultrasound therapy machine, a polysaccharide-based anti-adhesion material, a polydioxanone suture, and an electroencephalogram (EEG) system. The Smart Healthcare Research Center will focus on three main goals: using smart healthcare technology in surgery, building a database for smart medical devices and materials, and providing consultations on the commercialization of smart healthcare and medical products.

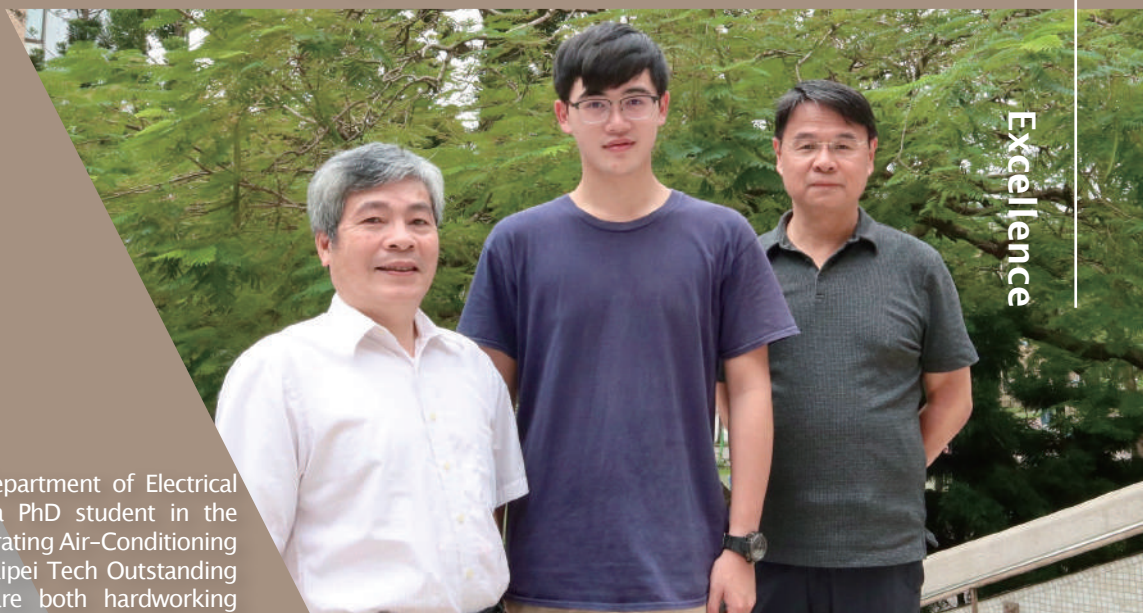
Fang indicated that when developing high-end healthcare and medical products, there is a disconnect between R&D results and a marketable product. "Through the establishment of this research center, we can provide a one-stop service that includes commercialization process planning and certification, market evaluation, and technology development," said Fang, "our goal is to accelerate the commercialization of healthcare products and to promote key medical technology."

Taipei Tech held an unveiling ceremony to celebrate the establishment of the new Smart Healthcare Research Center



Taipei Tech Students Lin Kai-wei and Chen Bo-lin Honored with Outstanding Youth Award

Excellence



Lin Kai-wei (center), a senior in the Department of Electrical Engineering, won the Taipei Tech Outstanding Youth Award

Lin Kai-wei, a senior in the Department of Electrical Engineering, and Chen Bo-lin, a PhD student in the Department of Energy and Refrigerating Air-Conditioning Engineering, have received the Taipei Tech Outstanding Youth Award this year. They are both hardworking students who strive for excellence, even in challenging situations. They have been able to continue their education and enhance their professional skills by applying for scholarships and grants.

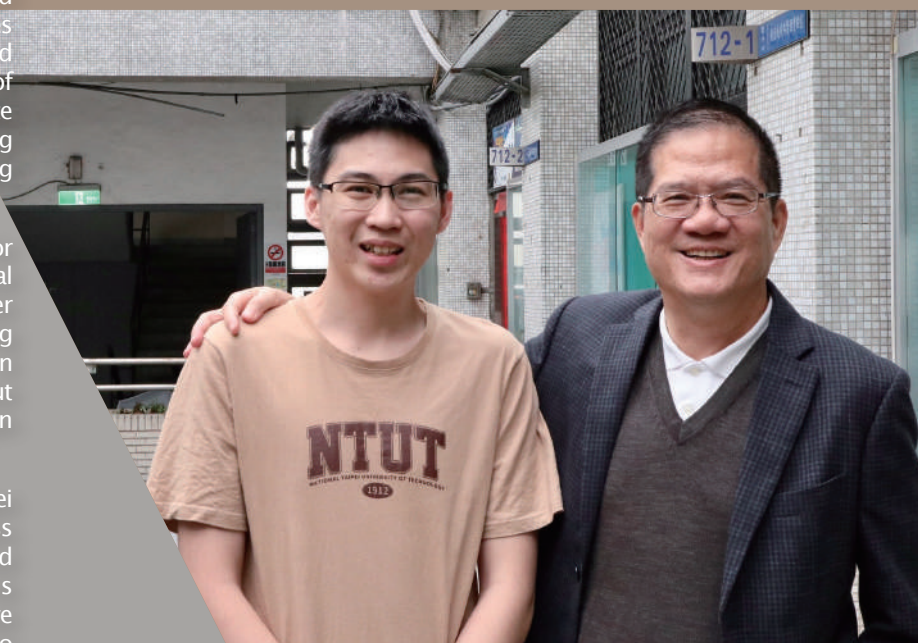
Lin Kai-wei has studied at Taipei Tech for four years and has been able to pay for all of his tuition and expenses with scholarship funds. He is a straight-A student and consistently ranks at the top of his class. After years of hard work, Lin has been accepted into graduate programs at National Tsing Hua University, National Yang Ming Chiao Tung University, and National Cheng Kung University.

Lin mentioned that his parents work very hard to pay for the house, and he doesn't want to add any additional financial burden to them. He remembers his mother being very supportive and spending a lot of time guiding and accompanying him as he grew up. "When I was in sixth grade, I failed my math exams twice," Lin said, "but my mother kindly encouraged me and helped me regain my confidence in math."

Professor Chang Chaur-yang, Lin's mentor at Taipei Tech, mentioned that Lin has been elected as class representative for four years. "Lin is a considerate son and a diligent student who is very eager to help others. His classmates are greatly influenced by him. They have formed study groups and encourage each other to do better in class," said Chang.

Lin expressed gratitude for all the teachers who have helped him and the scholarship funds that have enabled him to continue his academic journey. He hopes to one day be able to use what he has learned in a company related to IC design or power systems.

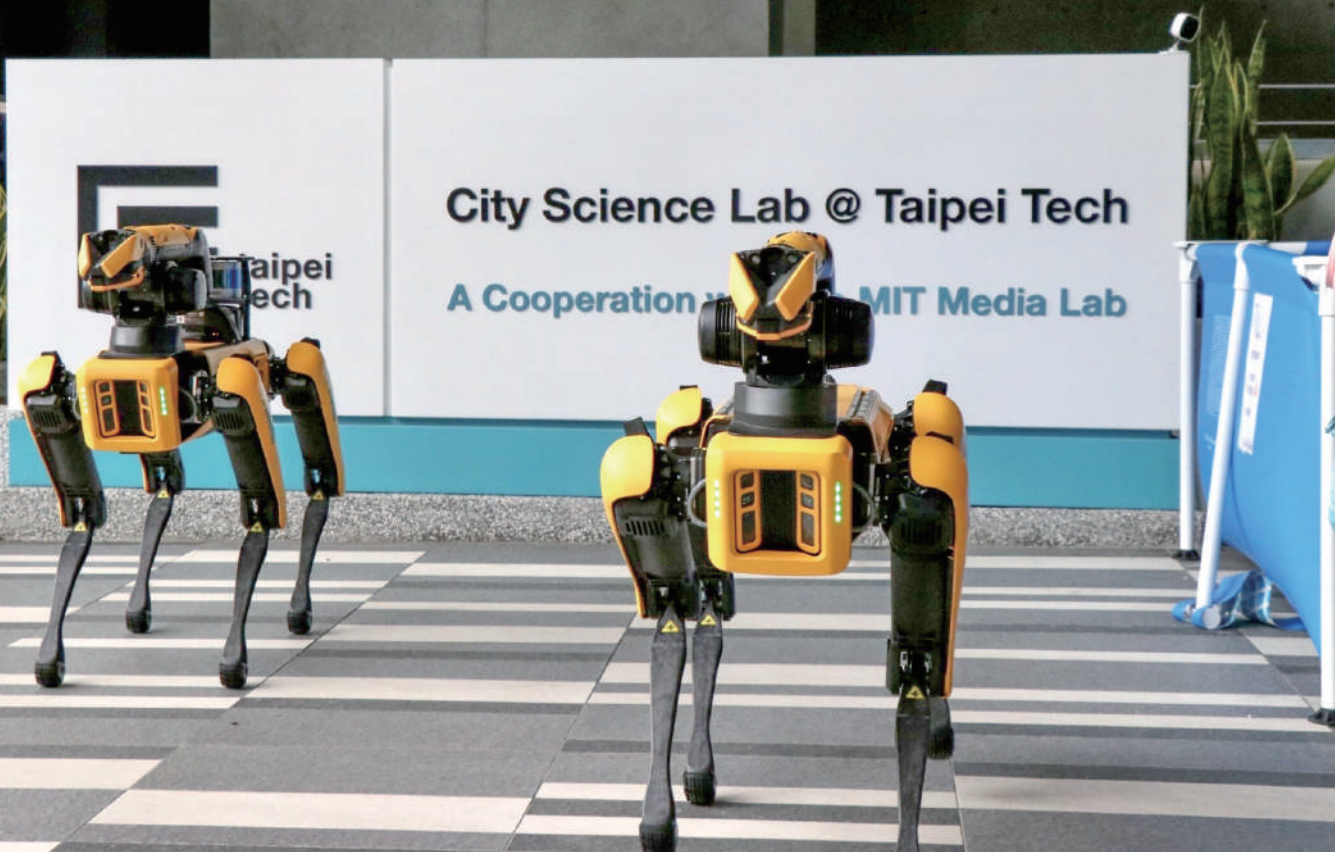
The other recipient Chen Bo-lin had been selected to participate in an overseas summer internship program in the University of Illinois. The two-month program was sponsored by the Ministry of Education. Coming from a disadvantaged background, Chen works hard to achieve excellent academic performance so that he can apply for



Chen Bo-lin(left), is a hardworking PhD student in the Department of Energy and Refrigerating Air-Conditioning Engineering who strives for excellence

scholarships. "It is important for me to not burden my family about my tuition fee," said Chen.

Professor Yan Wei-mon, Chen's advisor at Taipei Tech, praised Chen's diligence and perseverance. "Chen is willing to spend extra time to improve his learning and performance. He is also a delightful team player who gets along well with his classmates," said Yan.



City Science Lab @ Taipei Tech Demonstrates Cutting-edge Robots

The City Science Lab @ Taipei Tech has recently demonstrated a series of experimental robots that show the Lab's research capabilities. These robots include Boston Dynamics' dog-like robot named "Spot," an AI-powered robotic fish, and a delivery robot name "Campus Rover." The City Science Lab @ Taipei Tech is a cross-disciplinary R&D laboratory jointly established by the Massachusetts Institute of Technology (MIT) and Taipei Tech.

Yao Leehter, Taipei Tech Chair Professor of the Department of Electrical Engineering, indicated that the Lab has strong support from Taipei Tech alumni. Through collaborating with Kent Larson, director of MIT City Science Lab, the City Science Lab @ Taipei Tech aims to be an international platform for technology and talent exchange. "Through developing advanced AI technologies and big data systems, we are turning Taiwan into a cutting-edge high tech island," said Yao. The City Science Lab @ Taipei Tech is also adopting MIT's Undergraduate Scientific Research Program (also known as UROP, implemented in 1969 by MIT's first President William Rogers). The goal is to provide sufficient resources for students in order to cultivate a new generation of scientific researchers.

Spot, the dog-like robot from Boston Dynamics, is integrated into the Lab's education and research because of UROP. Spot can easily adapt to complex terrains and is equipped with lidar, infrared, and a three-dimensional vision sensor, which allows it to map out the surrounding environment in real time and detect and dodge obstacles. Spot has been used in decommissioned nuclear power plants, factories, construction sites, and offshore drilling oil platforms for patrol, troubleshooting, leak detection, and many other kinds of missions.



The City Science Lab @ Taipei Tech has recently demonstrated a series of experimental robots including "Spot", the dog-like robot from Boston Dynamics

The City Science Lab at Taipei Tech also demonstrated its research and development results, including an AI-powered robotic fish. The fish was created through a collaboration between Taipei Tech, the National Museum of Marine Science and Technology, and Pioneer Material Precision Tech, and it can swim underwater through the use of machine learning to mimic the motion of a real fish. The robotic fish was used in the recent Pili puppet movie, Demigod: The Legend Begins. The Lab also displayed the Campus Rover, a self-charging robot developed in conjunction with Taipei Tech's Department of Industrial Design. The Campus Rover is designed for use in express services on campus or in hospitals. It can aide the social distancing effort and improve personnel safety by delivering forms and documents between offices during a pandemic such as Covid.

The 2022 APEC Forum on Entrepreneurship for the Future of Work was the first in-person event after the pandemic, and it successfully attracted a record number of overseas participants

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Global

The 2022 APEC Forum on Entrepreneurship for the Future of Work, hosted by Taipei Tech and initiated by the Ministry of Education (MOE), took place from November 16 to November 18. This was the first in-person event after the pandemic, and it attracted a record number of overseas participants, with ninety-five delegates from seventeen APEC member economies (including Taiwan) in attendance. The forum aims to strengthen regional cooperation through in-person exchange.

James H.C. Liang, Deputy Director General of the Department of Higher Education at the MOE, stated that the pandemic has caused major disruptions in everyday life. It has particularly affected young people and women in terms of their economic well-being and labor force participation. The pandemic has also accelerated the digital transformation of traditional industries. "To build capacity and entrepreneurial skills for this changing world of work and to prepare women and youth in the APEC region to be ready for the post-pandemic job market are the themes of this forum," Liang said.

Taipei Tech Vice President Thomas C.K. Yang stated that the school has been offering various entrepreneurial courses to encourage students to explore their creativity and learn how to turn their business ideas into reality. "We have also established a new innovative cooperative platform, iFIRST College, focusing on current key research areas such as artificial intelligence, semiconductors, and information security," Yang said. "By offering master's and PhD programs, this new college aims to cultivate forward-looking talents for the future of work." He encouraged participants to stay up-to-date with market, industry, and technology trends and to embrace challenges.

Taiwan's Minister of Digital Affairs, Audrey Tang, was invited as the keynote speaker at the forum to discuss how the government is implementing new policies for digital transformation in the workplace. Jeff Hu, CEO and co-founder of Turing Certs and a well-known entrepreneur in the blockchain industry, was also invited to share his startup experience and how his business is contributing to economic recovery across APEC regions.

A female entrepreneurship panel session took place in the second day of the event to promote female empowerment. Becky Chin Chi-yun, Representative from Her Attitude; Ngo Thi Hoai, Director of Wecreate from Vietnam; and Jennifer Chen, Co-founder and CEO of Dipp Inc. shared their startup journey and discussed women's participation in non-traditional sectors.

The final day of the event featured a regional youth start-up contest, in which students and aspiring young entrepreneurs presented their business ideas through demo pitches. A panel of judges from venture capital firms and incubation centers evaluated the presented business models and provided feedback. Prizes were given to the contestants with the most innovative and sustainable business ideas that can help accelerate regional recovery.

Delegation from Seventeen APEC Economies Attended 2022 APEC Forum on Entrepreneurship and Future of Work



Taipei Tech Held Woodworking Design Exhibition, Demonstrating Eco-friendly Furniture made from Domestic Wood Species



The Taipei Tech Woodworking Training Design Research Center, in collaboration with the Forestry Bureau and the Taipei City Department of Cultural Affairs, held a woodworking design exhibition featuring sixty pieces of furniture made with domestically sourced wood that help reduce carbon emission during the manufacturing process. Guests at the opening ceremony included Lin Hwa-ching, Director General of the Forestry Bureau; Chen Yu-hsin, Deputy Director of the Department of Cultural Affairs; and Chen Yung-tsang, Secretary-General of National Taipei University of Education.

Taipei Tech Provost, Huang Yu-hsien, stated that our university is the first in Taiwan to offer professional woodworking training. Taipei Tech has also consistently been ranked as the world's most sustainable university in the high rise building category. Huang added that Taipei Tech has been committed to incorporating sustainability and social responsibility into its development goals, and this Woodworking Design Exhibition demonstrates the university's efforts to promote sustainability by featuring eco-friendly furniture made from domestic wood.

Chen Tien-li, the Director of Taipei Tech Woodworking Training Design Research Center and the curator of the exhibition, indicated that the exhibition is a collective achievement of industry, academia, and government cooperation. Chen introduced the design work, "Taiwan Forest Images," which displayed seventeen stools with the same look, but made with over seventeen different domestic wood materials, symbolizing Taiwan's diverse culture. The stools were hung vertically according to the altitude of the tree growth. The other design work, "Taiwania Cryptomerioides Impression," showed a collection of tables and chairs made of Taiwania Cryptomerioides, the only kind of tree named after Taiwan.

Introductory video of the exhibition can be viewed through this link: <https://www.youtube.com/watch?v=nza-t-BB8Zw>



The Taipei Tech Woodworking Training Design Research Center, in collaboration with the Forestry Bureau and the Taipei City Department of Cultural Affairs, held a woodworking design exhibition showcasing eco-friendly furniture

