



NATIONAL TAIPEI UNIVERSITY OF TECHNOLOGY

TAIPEI TECH POST



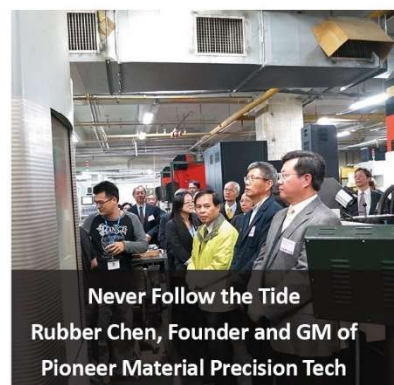
Taipei Tech Wins Gold
in FIABCI Environmental Category



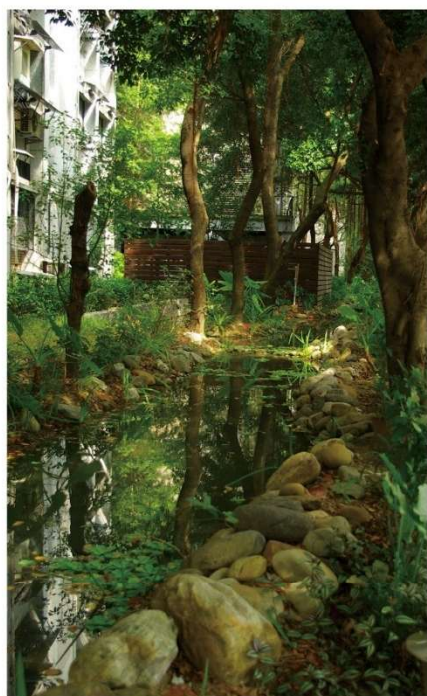
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Never Follow the Tide
Rubber Chen, Founder and GM of
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Zhong-Xiao East Road ecological walkway

Taipei Tech Wins Gold in FIABCI Environmental Category

Kimberly Lee

Taipei Tech's ecological campus design has won another award. This time, it's the gold medal given by the Paris-based International Real Estate Federation (FIABCI) at its World Congress in Taichung City, Taiwan.

The Green Gate of Taipei Tech has reaped numerous honors, including the Taiwan Real Estate Award and Taipei Urban Landscape prize. FIABCI judges praised the Green Gate design for its eight-story high glass fiber tree trunks, climbing vines, and watering system, which brought this widely recognized green landmark to life.

Regardless of the fact that Taipei Tech is located in an urbanized downtown area within Taipei, its Green Gate main entrance, along with the water-recycling bioswale for fish and rooftop eco-way station for birds, has created an eco-friendly urban habitat for animals in the city, allowing their ecological network to function properly.

Thriving greeneries with the watercourse, bioswale, and clever plant arrangements, brick walls no longer exist. Instead, Taipei Tech opens its arms to embrace not only its students on campus but commuters of the public transportation systems nearby, the dwellers of the neighborhood, and the populace of

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Taipei Tech's Green Gate



Greeneries planted along the Xin-Sheng South Road sidewalk

the bigger Taipei City alike. People can all enjoy a refreshing break, to ease their hectic schedule. Taipei Tech is becoming an oasis in the urban jungle.

Among the proud celebrators of this fantastic outcome, Department of Design's Dean Jen Hui Tsai is especially gratified with the outcome as he recalled the "mental obstacle" he had to overcome in other people's minds. "It is easy to break down a physically existing wall but it takes much more effort to break down the mental wall that stands firmly in people's minds!" said Dean Tsai. It took him three years of patient persuasion and slow but steady communication to finally reach the outcome of removing the school walls that kept Taipei Tech campus and Zhong Xiao East Road apart. Yet it only took three months to complete the entire construction and rebuild the new eco-landscape. Of course, all this would not have succeeded without the support of the Ministry of Education and the University authorities.

After successfully convincing conservative minds with the much

acclaimed opened campus, Dean Tsai did not stop there. He proceeded with his concept of eco architecture and green design, brought in the element of public art to the new campus landscape at Xinsheng South Road, and created the Green Gate. As splendid as his previous accomplishment, the Green Gate immediately caught local and global attention as it stood thriving, affecting the city with its flourishing and prosperous momentum.

Dean Tsai expresses his viewpoints on the integration of theory and practice. He pointed out that many campus landscape designs obtained inspiration from student projects and were finalized by concrete implementation. Teaching from the book is obviously pointless without hands-on practice. Combining theory and application creates a more dynamic and diversified platform for talents to be nurtured and to grow. Taipei Tech's successful example of a reformed and elevated green campus also shows the world that with determination and action, an insightful design will most definitely come to life as a mind-blowing, significant piece of art.

The Institute of Environmental Engineering and Management: Research for the Global Environment

Rebecca Lynn Li

The environment - it is one of the major issues confronting the world today. After using up much of earth's natural resources and wreaking much damage on the environment with our technological innovations, we see the impacts of our actions and are doing something about it. Taipei Tech's Institute of Environmental Engineering and Management (IEEM) is training engineers and environmental management specialists to help solve the ever increasing number of environmental problems, meet the needs of our industries, and increase our living standards and international competitiveness. Originally a part of the Department of Civil Engineering, the IEEM branched out, and was established as an independent institute in 2000. To follow in the development of the global environmental trend and to assist our government in carrying out its environmental policies, the institute was formally named as the Institute of Environmental Engineering and Management in 2006 and established its PhD program in 2012.

In the IEEM, research is conducted in the areas of resource recycling, heavy metal mercury, carbon footprint, and indoor air quality. Guided by the idea that when used in the right place, even garbage can be turned



Circulating fluidized-bed system for nitrogen oxides control

into gold, the IEEM is well versed in the research of turning waste such as broken glass, mercury lamp, fly ash, lithium battery, and discarded solar cell panel into usable resources. The IEEM has also conducted many research projects related to heavy metal mercury and its inorganic compounds. Developing technologies to better detect and analyze mercury present in the environment, the IEEM can then control and reduce the amount of mercury found in the atmosphere, soil, and ash. Assessing the risk exposure and conducting life cycle analysis, the IEEM evaluates the impact of exposure to mercury on the public's health. As the whole planet is changing from the effects of global warming, the IEEM undertakes research on the factors that are taken into account for global

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enterprises to regulate the emission of greenhouse gases. Through the calculation of carbon footprint, comparisons can be made on the amount of greenhouse gas emissions caused by organizations or products and evaluate their impact on the environment. As for research on indoor air quality, the IEMM uses wireless sensing equipment to build systems for monitoring indoor air quality, and environmental test chambers to develop active carbon and photocatalytic air purifier to cleanse indoor air of air contaminants.

Participants from both Taipei Tech and Japan at the Taiwan-Japan International Symposium on Environmental Science, Technology and Management



Down To The Last Detail

Hsiu-Pin Lin and Link Nie

Interview with Dr. Shen-Ming Chen on Electrochemistry Lab

Holed up in a very cramped space, a seemingly impenetrable fortress composed of laboratory equipment; tinkerers are stationed in their little workshops focused on their own projects at hand. That is the everlasting perception of Dr. Shen-Ming Chen (陳生明) towards a laboratory. As Dr. Chen meticulously and passionately goes around the lab, explaining the principles of research, one may be able to gain a better understanding of analytical techniques, biofuel cell, solar batteries, and chemical and biochemical sensors. By applying and utilizing analytical techniques as the base and foundation of scientific research, it is possible to apply such technique to compliment other research studies in order to gain more insights.

After listening to Dr. Chen's concise yet in-depth explanation, we were able to understand the core as well as the mantra behind his research: the never-ending pursuit for improvement and perfection. Take analytical techniques, for example, it is a required field of study for it analyzes the sensitive chemical elements that we work with, such as detecting the toxicity in air or water and finding out how much ppm is harmful to the human body. Another vital area of study in our lab is the development of nanotechnology, such as nanometal

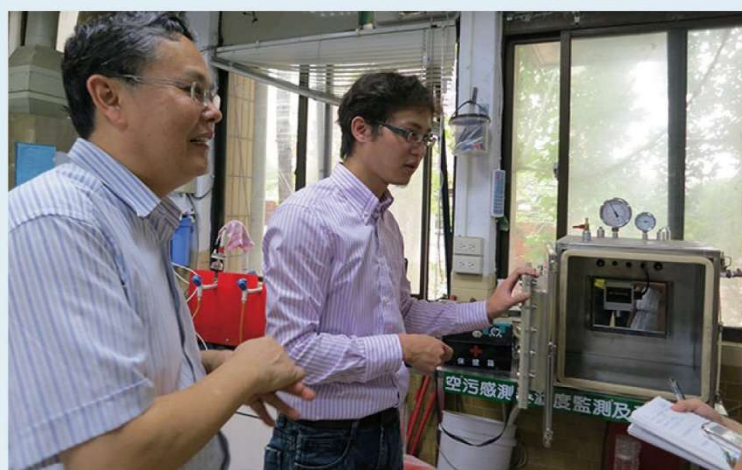


Dr. Shen-Ming Chen talking candidly about his researches



Research team group photo with visiting scholar from India, Dr. P. Shakkthivel (front left) and Dr. Chen (front right)

(gold, platinum, silver, bronze etc.) and nanocarbon (graphene and carbon nanotubes). As a speaker for the government based production education seminars, Dr. Chen can be considered as one of the many elites in his field of study. His research studies are based on chemical detection, which can be incorporated into other areas of research as base, allowing the said research studies to be as meticulous as possible.



Dr. Chen (left) and his student introducing and demonstrating laboratory equipment

Regarding academia related productions, the newest case of study would be the Development of a Dissolved Oxygen Sensor for Commercial Applications, which Dr. Chen hopes to utilize as a means to bridge the gap between professional work place and academic settings by allowing the two to work closely with each other. To be more specific, what the industries need right now is the technology for detecting particles and the development of new materials, which the academia can provide. Dr. Chen hopes to establish a win-win situation by creating a cohesive partnership between the industries and the university, where the industries would provide materials needed for research and the students can provide the desired technology or results, allowing the two to function on a quid pro quo relationship. This creates a cycle where students will be able to harbor experiences in research and development which enables them to acquire jobs faster and become leading innovators.



Rubber Chen, CEO of Pioneer Material Precision Tech explaining his operations approach to a visiting Taipei Tech delegations



Taipei Tech delegations getting the grand tour of the PMP facilities

Never Follow the Tide

Rubber Chen, Founder and GM of Pioneer Material Precision Tech.

Kimberly Lee

Treasure Island was the favorite childhood reading of Rubber Chen (陳勝標), founder and GM of Pioneer Material Precision Tech. The book's ten-year-old protagonist, Jim Hawkins, overcame one challenge after another and finally realized his dream of acquiring enormous wealth. In reality, Chen started off from an island as well thirty years ago, founded a business of his own, slowly and steadily strengthened its base with solid diligence, and finally reached the world stage as an international entrepreneur. Jim Hawkins from *Treasure Island* was an adventurer chasing after treasure, but Chen was more than that. His target was more idealistic, more profound; he was seeking the answer to the question, "what kind of person do I want to become? And how am I going to become that ideal person?"

Chen's hunt for answers began when he was a student at Taipei Tech.

It was 1970, Chen was only 15 years old but he was already full of passion and aspiration. He was well aware that the Taiwanese economy was ready to soar to new heights. Without a doubt in his mind, he jumped at the first opportunity onto the fast rolling economic wagon. However, Chen did not want to be a farmer like his parent and grandparents would have wanted them to be; instead, he was aiming at becoming a young entrepreneur. "I was hoping that I could found canned pineapple or asparagus factory." Keeping the goal in mind, he gave up the entrance admission to other established institutions and chose Taipei Tech for its prestigious reputation in the industry. "My target was set right at the moment I set foot in Taipei Tech: I wanted to launch my own business. I wanted to be an entrepreneur," said Chen, recalling the rare aspiration not often seen in a 15-year-old youngster. In fact, he never doubted his choice. Looking back, his determination and insightfulness was indeed admirable.

At that time as an undergraduate, despite the fact that most students were preparing for TOEFL under the context that there was a popular trend among young people to study abroad, it was not the tide that Chen was about to follow. He was more concerned about the fact that it takes a lot more than expertise to become a successful entrepreneur. Bearing in mind of his lack of all round knowledge, Chen made wise use of his summer breaks and after school periods to study accounting and international trade. Moreover, he was self-motivated to master the subjects within two

months instead of one semester, which was the regular timeframe.

"No one knew about my plan to study accounting and international trade, but I was certain that I should be setting my own target and executing my plans rather than blindly following the trend without a purpose," said Chen. Indeed, his wise plan built a solid foundation for him and equipped him with all the necessary means he would need on his journey to becoming an entrepreneur.

In 1975, after Chen graduated from Taipei Tech, he established a small-scale factory as planned. It was not as smooth as he had expected when his partners withdrew one after another, and business opportunities started to deteriorate, but giving up was never a choice he would consider. Chen revealed his strong will and determination, "It's not about what I am lacking; it is about not giving up and fighting harder." He worked 16 hours a day, 7 days a week and managed to overcome the hardships. Now, he has succeeded and is actively engaged with more than a thousand international businesses. His company, Pioneer Material Precision Tech., is key partner to more than 80 percent of the world's top 30 electronics stakeholders.

Starting from scratch to success, one principle that guided Chen was to never follow the tide. One needs to be certain of what one would like to achieve, and to distinguish one's strengths and utilize them well, make the most out of them. Chen shouts out to students of Taipei Tech as a senior alumnus who is undoubtedly a splendid model to look up to, to reach out as much as possible to the world and accumulate experiences by participating in international competitions whilst being a student. He specifically reminds all the students of Taipei Tech to be fearless in the face of competition, because competition inspires one to adjust, to reform, and to innovate.

Like Jim Hawkins, Rubber Chen spent a good deal of his lifetime searching for his treasure, the answer to what kind of person he would want to become, and how he should achieve that. He began his own *Treasure Island* journey from Taipei Tech, overcame all the hardships throughout his expedition, and finally found his lifetime treasure – becoming the person he wanted to be.

Wish you have a great day ahead,

A handwritten signature in black ink, reading "Wenlung Li". The signature is written in a cursive, flowing style.

President

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