

# Newsletter of YunTech

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## Exclusive Interview

### President Yang Neng-shu States the Future Development of YunTech!

Since February 2017, Dr. Yang Neng-shu has been the president of YunTech. What are the new visions and strategies for the low birth rate of Taiwan and the competition among higher education institutes from all over the world?



#### Concrete Plans for Future Development

First of all, President Yang shared some new plans for YunTech in the next 4 years. President Yang stated that the primary priority for YunTech is to build its name and honor in society by focusing on international

ranking. There are 3 strategies to achieve that goal. 1) Building the system for teacher development, 2) Building the system for student learning, 3) Building the administration system for supporting both teachers and students and making good use of the e-learning environment. As for the development of YunTech, President Yang stated that encouraging teachers to teach according to their own expertise, building an environment of self-learning for students, grouping paradigm teachers in different areas, focusing on links with the industrial field to show the strengths of YunTech, providing an e-campus of zero-distance in communication and strategies for international cooperation were the main focuses for the development.

Furthermore, President Yang said the school would be flipped to build a new light point and the brand *YunTech* could shine in both the central Taiwan and the rest of the world. As for academic affairs, students recruiting, management of YunTech Facebook, e-learning and e-teaching, changes of freshmen courses and so forth will be worked on. The enforcement of a *Future University* is a key for education renovation. Moreover, inter-disciplinary combination is the future plan for YunTech to solve the gap between learning and using.

As for student affairs, students will be encouraged to learn, do research, take risks, love the school and the country, and do exercises to build their physical health. Students clubs will be the main group for students to build their spirits and cultivation of a good atmosphere to reach the above goals. As for general affairs, technology and e-campus should be built in the environment.



It is known that the low birth rate is a big problem for Taiwan. Under this strict competition, YunTech should advance and renovate itself to build its name and honor in society, thus overcoming all the challenges and becoming a new paradigm university among other vocational schools. To reach the goal, 4 themes will be focused on. They are talent cultivation, research in scientific fields, management of quantities and qualities of teachers, and school resources. The *Freshman* project will be promoted in the academic year 2017, and the main concepts of the project are to redesign courses and increase problem-solving contents in each class. With the flexibility in course system and customized courses, it is believed that YunTech can become an important base for cultivating talents in the future.

#### Internationalization and visibility of YunTech in the world

President Yang continued talking about internationalization. The world is already a global village, meaning learning internationally is necessary. President stated that YunTech had already built concrete international strategies. Efforts include recruiting more PhD students from the south-east Asia and India by visiting these two areas to open the market, and pushing forward the scholarships for international graduate students, thus being able to attract more excellent MA and PhD students registering and studying at YunTech. Furthermore, the academic

exchanges with higher education in the Mainland China will be continued as well. The extent of international cooperation and exchange graduate students from Mainland China are hoped to be increased.

The other strategy for internationalization is to encourage the departments or centers of YunTech to hold international conferences, which will be an important opening and chance for cooperation and academic exchanges for YunTech's teachers and students. Also, inter-disciplinary cooperation will be focused on for the four colleges in the future. The other two strategies for attracting more international students to study in YunTech are its English websites and courses taught in English. As the English website is enhanced, the international visibility will be increased. As for the courses taught in English, the Office of Academic Affairs had already set guidelines for courses taught in English to make each department open at least one course taught in English in each semester. The increasing hour pays for teachers are set as well to encourage teachers to open more courses taught in English. In the future, more complete guidelines will be put into discussion to enhance courses taught in English to recruit more international students to study at YunTech.



#### The construction of Building for Industry and Academic Research at the South Gate will be finished by August, 2017

The president also mentioned the construction of the Building for Industry and Academic Research at the South Gate will be finished by August, 2017. The building will contain exhibition spaces, multi-functional practice workshops, information and creative spaces, office rooms for new start-up companies, space for micro-start-ups of students, product-test center, parking



space and so forth.

## Monthly Issues

### **“The 2016 Asia-Pacific Hazamat Energy Response Technology Conference” Organized by the Environmental Protection Administration was Held at YunTech**

The occurrence of natural disasters, artificial disasters and terror attacks have become more frequent in these years. Crisis management and post-disaster recovery are complex and tough and the impact on social economic strength is difficult to evaluate. When a disaster involves chemicals, the management and technology to solve it is complex.

YunTech has been cooperating with the Environmental Protection Administration since 2002. In order to manage the training of emergency responses to all kinds of toxic chemicals in central Taiwan and to support the economic and industrial development in the region by holding conferences and meetings, the Counseling Center for Crisis Management was established at YunTech.

“The 2016 Asia-Pacific Hazamat Energy Response Technology Conference” took place on November 17th at the College of Public Health at National Taiwan University and was organized by the Environmental Protection Administration in cooperation with YunTech. Professor Norio Maki from the Disaster Prevention Research Institute of Kyoto University, Japan; Mr. Hideomi Kakimoto from the Maritime Disaster Prevention Center, Japan; Founder and President J. P. Gupta of Solar Energy of India, India; President Benedict Koh from the Fire Safety Managers Association, Singapore; and Distinguished Professor Hong Jao-jia of YunTech were invited to deliver speeches. The industrial, governmental and academic sectors were invited to join the conference.



The 2016 Asia-Pacific Hazamat Energy Response Technology Conference

The main topics delivered are listed below:

1. Disaster responses to the 2011 Tohoku-oki: National coordination, a common operational picture, and command and control in local governments
2. 2016 Introduction of MDPC, HM incident response system and case study
3. Bhopal Gas Tragedy and Current Status of Rehabilitation of Victims
4. Singapore-Company and Community Emergency Response and Preparedness
5. Toxic and Chemical Substances Emergency Response Case Analysis in Taiwan

The conference was held with the belief that it could foster better responses to disasters and academic exchanges between Asia-Pacific countries and enhance the response technologies of Taiwan's industrial, governmental and academic sectors, thus creating a healthier, safer and more comfortable living environment for sustainable development.



International scholars at the 2016 Asia-Pacific Hazamat Energy Response Technology Conference

## **New Industrial-Academia Cooperation between Taiwan and India: YunTech, Central Taiwan Science Park, Hsinchu Science Park, and Indian Institute of Technology (IIT) Signed a Memorandum of Agreement.**

The signing ceremony of the Taiwan-India Consortium for Academic-Industry Cooperation in Technology and Innovation between YunTech, Central Taiwan Science Park, Hsinchu Science Park, and the Indian Institute of Technology (IIT), Hyderabad Camp, was held on April 17th. It is hoped that the new consortium can jointly enhance industrial-academia cooperation between Taiwan and India and fulfill the goal of international academic development for tertiary education systems in both countries. The representatives of the four institutes were President Yang Neng-shu of YunTech, Director-General Chen Ming-huang of the Central Taiwan Science Park, Director-General Wang Wayne of the Hsinchu Science Park and President Uday B. Desai of IIT.



President Yang Neng-shu of YunTech, Director-General Chen Ming-huang of Central Taiwan Science Park, Director-General Wang Wayne of Hsinchu Science Park, and President Uday B. Desai of IIT sign the MOA at the signing ceremony.

The main goals of the Taiwan-India Consortium for Academic-Industry Cooperation in Technology and Innovation is to recruit educated elites of Taiwan to provide training courses and to recruit elites from both countries to take internships in both countries. Recruiting elites from India to assist the information technology sector of Taiwan is the top priority of the consortium. The academic and technology exchange platform is built based on the consortium's needs and provides opportunities for teachers and students from both countries to undertake short-term exchanges, internships, workshops and visits to the industrial

sector. MA students and PhD students can directly join any of the projects from these four institutes or even apply for any international collaborative project from other institutes or organizations. The most important thing is that the Young Entrepreneurs Studio of both science parks will be open to the tertiary education schools in India, thus attracting Indian students and companies that would like to do research or have their start-ups. It is believed that the consortium can play the role of an intermediary that introduces academic exchanges between Taiwan and India.



The signing ceremony of the Taiwan-India Consortium for Academic-Industry Cooperation in Technology and Innovation.

Through the academic and industrial cooperation with the Indian Institute of Technology, Hyderabad Camp, new possibilities will be created for Taiwan. The educational and industrial sectors can develop and open their Indian markets, academia-industry cooperation between both countries will be improved and the vocational education of Taiwan will become more international. The chances for Taiwanese students to take internships abroad will increase. They can even have more possibilities to work abroad in the future.



### **Awards and Commendation**

## **YunTech Achieves Great Performance at the 2016 Hong Kong International Invention & Design Competition!**

Held by the Hong Kong Trade Development Council (HKTDC), the 2016 Hong Kong International Invention & Design Competition is the biggest invention combining creative technology, design, and assistance to patent match, creating greater commercial opportunities for Asian businesses. Also, it is an official international invention as it is approved by the International Federation of Inventors' Association (IFIA). The 2016



invention took place from December 1st to 3rd at the Hong Kong Convention and Exhibition Centre and attracted inventions from more than 10 countries. YunTech was honored to win 3 gold, 2 silver and 1 special award at the invention.

The gold-awarded inventions are described below:

The invention, “Baby Monitor with Crying Recognition,” was invented by students Dai you-hen, Chung Wei-chung, Tsai Lung-you and Wang Wei-chun from the Department of Computer Science and Information Engineering under the instruction of Professor Chang Chuan-yu, who is also the dean of the Office of Research and Development. The invention was honored with both a gold and a special award. The monitor is a light, cute, and easy-to-construct gadget. Parents can put the monitor near their baby’s bed to check on their baby’s situation. When the baby is crying, the monitor picks up the crying sound and uploads it to a cloud system. The application designed especially for the monitor will notify parents on their mobile phones why the baby is crying, making it possible for parents to be aware of the baby’s situation anytime even they are not near the baby. Moreover, parents can see the baby through their mobile phones and interact with the baby.



Professor Chang Chuan-yu and the awarded inventions.

The invention, “Microfluidic Platform for Cell Labeling and Separation,” was invented by students Yeh Yi-ling and Lin Yao-zong under the instruction of Assistant Professor Huang Chien-sheng from the Department of

Electronic Engineering. The invention has applications in the field of biomedicine field as it can separate specific cells. Due to the difficulty in obtaining specific cells, the cost of hiring professional medical laboratory scientists and using precision instruments was high in the past. It is believed that the invention can be an important tool for pathologic diagnosis. A traditional plastic disk is utilized as the base and a microfluidic channel with certain functions is designed on the disk. Also, computer modelling and analysis are conducted. Injection molding is applied to build a crystal microfluid platform, thus creating a low-cost inspection system.

The third gold-awarded invention, “Copolymers Based on 1,3-bis(carbazol-9-yl)benzene and 2,2-dimethyl-3,4-propylenedioxythiophene as Potential Anodic Materials in High Optical Contrast and Satisfactory Long-term Switchable Energy-Saving Electrochromic Devices,” was invented by students Kuo Zong-wen, Lin Yuan-chong, Chiang Meng-shin, Dong Yi-shuan and Wu Bo-wei under the instruction of Associate Professor Wu Tzi-yi from the Department of Chemical and Materials Engineering. The main idea of the invention was adopted from the masterpiece of “Bian Lian” from the Sichuan operas. Performers of the operas fascinate their audiences by switching different colored masks in a flash. The masterpiece is always the most mysterious part of the operas. The invention also has the ability to switch more than 3 colors at a time. What is needed is to use a small amount of electricity and the changes of colors are reversible. If colors are switched every 10 seconds, the colors can be switched more than a thousand times continually.



“Copolymers Based on 1,3-bis(carbazol-9-yl)benzene and 2,2-dimethyl-3,4-propylenedioxythiophene as Potential Anodic Materials in High Optical Contrast and Satisfactory Long-term Switchable Energy-Saving Electrochromic Devices” by Associate Professor Wu Tzi-yi from the Department of Chemical and Materials Engineering.

The silver-awarded inventions are described below.

The first silver-awarded invention, “Easy-defrost Fish Package,” was produced by students Chen Yen-ting, Chen Ping-ru and Kao Jia-yi under the instruction of Associate Professor Wang Ching-liang from the Department of Creative Design. The invention can defrost packages of frozen fish. The packages are divided in three shapes — rectangle, oval and triangle. Customers can choose the package they need depending on the shape of their fish. The most special part of the invention is the high thermal conductive graphite, which transforms the heat of the environment and the hand to defrost fish on your way home. The serial geometric figures transformed by fish scales make even thermal conductivity. Furthermore, the ready-to-eat food packet enclosed in the package will help customers cook a delicious meal easily.

The other silver-awarded invention, “Integration of Poly-Ge Films in Solar Cells,” was invented by students Huang Chen-jin, Hsieh Ling-chuan and Lin Yi-an under the instruction of Associate Professor Lin Jian-yang of the Department of Electronic Engineering. The invention uses metal induced crystallization to manufacture poly-ge films and combines p-type Si to create a heterojunction solar cell of mono-silicon substrate and p-type poly-ge substrate. The invention features the advantages of increased conversion efficiency, decreased costs and dangerous air, and ease in manufacturing. If silicon solar cells on the market adopt this method, it is believed that the efficiency of electricity generation and the value of product can be increased.

### **YunTech is Honored with 1 Award for “Best of the Best” at the 2016 Red Dot Award: Communication Design**

Red Dot Award, iF Design Award, International Design Excellence Awards (IDEA) and Good Design Award (G-Mark) are the “Oscar Awards in the design field.”

The awarding ceremony of the 2016 Red Dot Award: Communication Design was held on November 4th at the Berliner Concert Hall, Germany. There were 7,838

entries from 46 countries participating in the design competition. The Department of Visual Design of YunTech was awarded with 1 award in the categories of Red Dot: Best of the Best and Red Dot: Winner with its creative design power.

The awarded products are listed below:

#### **“What are you singing?”**

The product “What are you singing?” was invented by students Chang Fang-rung, Huang Yu-chien and Wang Bo-ren under the instructions of Associate Professor Liao Chih-chung, Associate Professor Tsao Jung and Associate Professor Lin Tay-jou. Student Chang stated that television serves the functions of transmitting information, presenting ideas and so forth. However, folksongs played the role of television before television became common in our daily lives. Before television appeared, folksongs was the entertainment medium for people in the past. Folksongs served the functions of telling stories, telling side-street news, promoting commercial advertisements and so forth. As time changed, television and other media grew vigorously while folksongs declined. YunTech created a whole music album with written lyrics, paper-cut art, scratches and so forth to make a collage. Furthermore, the team designed the cover of the album and shot a music video to give the whole album a complete life and make it resonate with the young.



The team of “What are you singing?”

#### **“900 Meters of Distance”**

The product “900 Meters of Distance” was invented by students Wu Duang-shen and Lin Yun-tung under the instructions of Associate Professor Liao Chih-chung, Associate Professor Tsao Jung, and Associate Professor Lin Tay-jou. According to Student Wu, Qiaotou Elementary School-Shicuo Campus is only



900 meters away from Taiwan's biggest petrochemical factory, No. 6 Naphtha Cracker Complex. When standing in the playground, what you can see is smoke coming from chimneys endlessly. The team interviewed the teachers, parents, and green groups to acquire different point of views, thus investigating the helpless feeling of students when discussing their educational rights and health rights from diverse perspectives.



The team of "900 Meters of Distance."

#### "Original Mind"

The product "Original Mind" was invented by students Kuo Yen-biao, Chen Ya-chen and Dong Yi-ting under the instructions of Associate Professor Liao Chih-chung, Associate Professor Tsao Jung, and Associate Professor Lin Tay-jou. Student Kuo stated that tea drinks are always a big concern and worry customers due to food safety from the use of tea extracts. The team focused on organic tea farmers and used an illustration to promote the manufacturing processes of organic tea and the spirit passed on of the three generations. It is hoped that customers can think of the sincere spirit of the organic tea farmers in the manufacturing process when drinking the tea, thus promoting the organic tea.

The President of YunTech said that the awarded students were the honor of Taiwan, YunTech and the Department of Visual Design. The outstanding performance of the College of Design is undeniable since they have won countless awards in design competitions held in Taiwan and all over the world. In the future, design for the industry, a focus on social issues, and services to promote cultural and creative industry will be worked on further.



## 2016 Accounting Theory and Practice Conference at YunTech

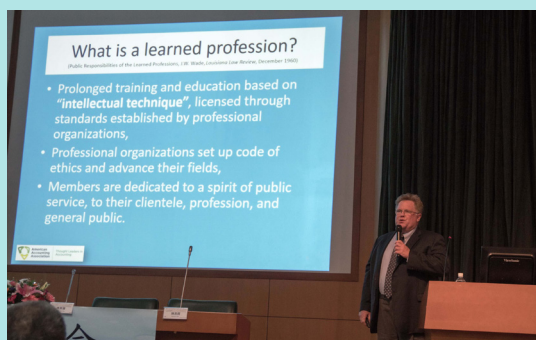
The Department of Accounting of YunTech, the Taiwan Accounting Association (TAA) and the Certified Practising Accountant Australia (CPA Australia) jointly organized the 2016 Accounting Theory and Practice Conference from December 1st to 2nd at the International Conference Hall and College of Management at YunTech. To meet the requirements and efforts to protect investors from the Financial Supervisory Commission (R.O.C.), the conference focused on both theoretical and practical parts to investigate the current situation of accounting and auditing and trend for future development.

There were nearly 500 attendees and representatives from The American Accounting Association (AAA), Japan Accounting Association (JAA), Korea Accounting Association (KAA), CPA Australia and other associations who participated in the conference. Concurrent sessions and research interaction forums were held during the 2-day conference.



Guests from The United States of America, Japan, Korea and Australia.

The keynote speaker of the opening ceremony was Professor Bruce Behn, President of the American Accounting Association. His topic was "The Journey to a Learned Profession. Professor Behn focused on accounting theory and practical development and provided incisive statements to all the attendees.



President Bruce Behn of the American Accounting Association

There were more than 90 research interaction forums that took place. The conference selected the 3 Best Papers among all the papers. The issues including research papers from different fields of accounting which were novel. The research results presented researchers' hard-work and academic knowledge for the past year.

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