

# Newsletter of YunTech

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## Awards and Commendation



The first-prize receiver at ISQB

## YunTech Wins the Championship at ISQB Design Competition

One of the two works invented by Department of Industrial Design, YunTech, gained the first prize with a bonus of NT. 100,000 and the other was evaluated as a good work with a bonus of NT. 20,000 at ISQB Design Competition, held by Oriental Institute of Technology.

Based on the joint concepts of everlasting and innovative, early design talent identification, ISQB Design Competition is held the integration between academic and industrial sectors. Through this competition, the creative potential and the global vision of students as a group is expected to be brought out. Participants are hoped to integrate both international macroscopic and creativity to meet the main objects of ISQB.

Instructed by Professor Ching Yang, students Yi-Ching Lai, Yi-feng Cheng and Guo-chun Tzen invented the

"T.A-Taiwan Animal" which gained the first prize. The main concept of the work was protective animals of Taiwan. They were Black-faced spoonbill, Formosan rock-monkey, Formosan black bear, Formosan water buffalo and Formosan wild boar. The chosen animals provided the basic figures and the original complex figures were simplified to make the features stand out. The characteristics of woods, such as light weight, abundant colors, high quality and specific fragrance, were used as the design point of the backpack strap.



"T.A. Taiwan Animal," the first-prize receiver at ISQB

## YunTech Defends its Championship at 2012 Robot Competition

The design group teamed by Pei-hsuan Li, Zen-wei Lin, Yu-ning Tang, Yu-chen Huang, Su-wei Chen, Jia-chun Wu, Meng-jung Wu and Tzu-wei Chou of Department of Industrial Design, YunTech, defends its championship with one of the 2 inventions which gained a bonus of NT.100,000 and the other was evaluated as a good work with a bonus of NT. 20,000 at 2012 Robot Competition jointly held by Industrial Development Bureau, Ministry of Economic Affairs and the Ministry of Education. Both teams of the awarding inventions were under the instructions of Dr. Peng-zen Chen. The championship invention, "Lybbi tidy," was created by Pei-hsuan Li, Zen-wei Lin, Yu-ning Tang, Yu-chen Huang, Su-wei Chen. The good work invention was created by Jia-chun Wu, Meng-jung Wu and Tzu-wei Chou.

Lybbi tidy:

With the technique of RFID, Lybbi tidy serves as a

helper to categorize books which have been put in wrong shelves. After categorizing, Lybbi tidy puts books back in the right book shelves which have been put in places such as wrong shelves and carts, thus to decrease the numbers of staff. Besides, Lybbi tidy can help readers to look for books to increase the efficiency of borrowing. Inserted with techniques of heat sensitive, ultrasound and so forth, libraries can use Libbi tidy in ways according to their different needs and plans.

## HITORI

It was designed based on the constant changes in nowadays society structures. Double-income families have become a social tendency. The rate of sending children to infant care centers is increasing year by year. The reason is that parents don't have time and energy to take care of and accompany their children. This tendency results in the low birth rate globally.



"HITORI," the good work invention at 2011 Robot Competition



"Lybbi," the gold-award invention at 2011 Robot Competition





YunTech Defends its Championship at 2012 Robot Competition

## Top 1! YunTech Snares 3 Golds, 3 Silvers and 5 Coppers at Taipei International Invention Show and Technomart

In total of 11 medals, YunTech wins 3 golds, 3 silvers and 5 coppers for the category of Invention Competition among thousands of inventions at the 7th Taipei International Invention Show and Technomart. The received numbers of awards makes YunTech the top among universities in Taiwan. The group teamed by Professor Jung-chuan Chou and his students Min-shun Wu and Jien-chen Chen was granted with Polish Creativity Award by Polish Invention Association. The holding organization tended to increase the innovation level; therefore, only inventions with patents valid within 4 years were eligible for the competition this year.

The “Taipei International Invention Show and Technomart” took place in Building 1, Taipei World Center, from September 29th to October 2nd. 4 inventions of YunTech were selected to be exhibited in National Science Council, and 3 inventions of YunTech were selected to be exhibited in the Ministry of Education. Besides, 18 of the entries of YunTech were granted with 3 golds, 3 silvers and 5 coppers. One of the 3 gold inventions was created by the team grouped by students Jen-wei Chang and Yuan-tai Chiu led by Professor Pen-jeng Chen, the Department of Industrial Design, YunTech. “A Folding bicycle, extending and folding quickly, a foldable removing carrier and its attached models.” In addition to the concept of “circle,” this invention breaks the traditional bicycle image that bicycles are soldered by straight tubes and bring a brand-new life to these bicycles which can serve as trollies after being folded. The second

gold award invention, “Electrode and its manufacturing and application ways,” created by Associate Professor Chun-chian Lin and the student, Chang-hau Chan, who combined the method with metal/oxide film to increase the stability of electrodes. The last invention granted with gold award was the group of Assistant Professor Bou-tou Liu and his students Chou-shian Hsu and Han-lin Gou. The invention is entitled, “The structures and manufacturing methods of transparent conductive films,” created to replace the existing ITO products, to improve the low flexibility and the problem of origins of resources. The 3 silver awards were granted to the inventions of “Multibeam interferometer for displacement measurements” (group led by Assistant Professor Yung-chen Wang, Department of Mechanical Engineering), “Joining and applications of active solders” (group led by Associate Professor Si-ying Chang, Department of Mechanical Engineering) and “Image and video signal processing” (group led by Associate Professor Dai-fan Shen, Department of Electrical Engineering). The 5 coppers were granted to teams of Professor Tsan-song Li (Department of Electronic Engineering), Professor Jung-chuan Chou (Department of Electronic Engineering), Professor Chu-chin Hsieh (Department of Safety Health and Environment Engineering), Associate Professor Shi-ying Chang (Department of Mechanical Engineering) and Assistant Professor Yung-chen Wang (Department of Mechanical Engineering), respectively. The overall performance of groups of YunTech was outstanding at this competition.



The Taipei International Invention Show and Technomart

## The Invention “Populous Vegetables” was granted with the 2012 iF Product Design Award in Germany

iF Design Award which is held once a year does attract entries by design elites from all over the world. The iF Product Design Award is especially the one that top design companies are most interested in, which are granted to products with not only the creativity but practicality and highly manufacturing possibility.

Led by Professor Ching-shu Chang of Department of Industrial Design, students Yi-zu Li, Yuan-tai Chiu, Chia-chun Wu, Kun-tsun Chen and so forth created an organic vegetable gift entrusted by Industrial Technology Research Institute entitled “Populous Vegetables” which was granted with the 2012 iF Product Design Award.

The basic concept of “Populous Vegetables” is that city farmers who are self-contained. The team of YunTech integrated the organic bamboo fertilizer by Industrial Technology Research Institute with design ideas and expected city families can grow their own plans then enjoy their LOHA lives healthily.



Populous Vegetables, the iF product design award receiver



Populous Vegetables, the iF product design award receiver



## Academic Exchanges

### The 2011 Conference on Asia Society of Basic Design and Art

The “Conference on Asia Society of Basic Design and Art,” held once in two years is an academic party for the basic design and art sector. The “2011 Asia Society of Basic Design and Art (ASBDA)” was sponsored by Taiwan and YunTech was chosen as the institute to hold this party. From Friday, August 19th to Saturday, August 20th at the International Conference Hall at National Yunlin University of Science and Technology, the conference attracted more than 60 international scholars from Japan, Korea, the Mainland China, Singapore and Malaysia and the number of the international scholars nearly accounts for one third of the total. 52 papers were accepted, and 250 products from all over the world were exhibited at the Art Center of YunTech which showed the meaningful and international status of this academic conference.

The main issues for this conference were “Science, History and Basic design.” Reviewing the past decade, the conference has focused on the relationship of multi-faced concepts including environment, education, human-beings, society and basic design. Based on “time,” the Taiwan Society of Basic Design and Art investigated the interactions between technology and history under the trend of digital design, thus to strengthen the relationship of the design ground and humanistic connotation.



The 2011 Conference on Asia Society of Basic Design and Art

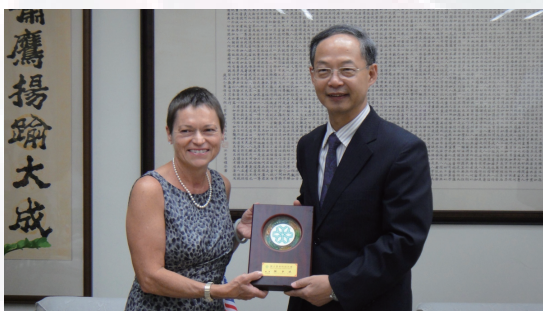


Several well-known scholars were invited to conduct experiences exchanging and discussions. They were Professor Akiyo Kobayasi of Musashino Art University, Japan, Chair Syuzo Fujimoto of the Japan Society of Basic Design and Art, Japan, Chairperson Yi Park of the Korean Society of Basic Design and Art, Korea, Chairperson Jing-sen Guo of Tienjing Society of Basic Design and Art, the Mainland China, Professor Siow Yin Yoong of Department of Art and of Design, New Era College, Malaysia, Professor Chan Phek Cek of School of Design Temasek Polytechnic, Singapore and so forth.

### **A Visit of the Chancellor, Southern Illinois University, U.S.A.**

Guests from Southern Illinois University, U.S.A., visited YunTech on September 13th, 2011. They were Dr. Rita Hartung Cheng, the Chancellor, and Dr. Tom Cheng, the Executive Assistant for Commercial Innovation and Technology Transfer. Led by President Yang, Vice President Yang, Dean Guan and other chairs from departments providing English courses conducted the reception.

Besides introducing and exchanging the English courses of both universities, the topics discussed including students exchange project, academic research cooperation, teachers exchange program, summer vacation program and so forth. Both of the universities reached an agreement that the main cooperation mode will focus on students exchange and joint degree to broaden the global visions of students at these two universities.



President Yang, YunTech bestowed the commemorative medallion to Chancellor, Dr. Rita Hartung Cheng

### **International Design Conference 2011-Sustainability, Culture, Digital Content**

Held by Department of Creative Design, College of Design, YunTech, the first “International Design Conference 2011” took place at the International Conference Hall on October 16th, 2011. Entering its 20th year, the College of Design accounts for units such as Department of Industrial Design, Department of Visual Communication Design, Department of Architecture and Interior Design, Department of Digital Media Design, Department of Creative Design, Graduate School of Cross-Cultural and Ph.D. Program of Design. Design fields included in curriculum consist of the concepts of graphic, three-dimensional, digital, space, integration of culture and creativity and so forth which makes the curriculum a comprehensive one. The main incentive of College of Design is to upgrade the teaching concept focusing on both theoretical and practical, to cultivate the design experts based on the needs of the national needs so as to become an international prime college of design in diverse fields.

Taiwan’s design education and research are developing vigorously recently. In order to provide the platform for exchanging experiences and academic knowledge between professionals and scholars, the College of Design held the “International Design Conference 2011-Sustainability, Culture, Digital Content.” Based on the concepts of “Sustainability, Culture, Digital Content,” the discussed issues consisted of industrial design, cultural life, technology of visual and digital design, space and so forth. Professionals and scholars from Taiwan and foreign countries took part in and some of them were invited to deliver speeches. Dean Lee stated that it was hoped to aggregate the experiences of professionals in each design field to investigate international issues such as design and culture & creativity, design and marketing, design and environment, design and digital generation and so forth through this conference, thus to open the international stage for Taiwan’s design field.



### YunTech Snares 5 Red Dot Design Awards

YunTech has been ranked 1st for the sixth consecutive year among all technological universities nationwide at the award-winning contest, "It's Show Time," in 2011. Moreover, the College of Design won 5 awards at the "Red Dot Design Award" again. Called as "Oscar Award" in the design field, the "Red Dot Design Award" attracts elites from all over the world to present their products every year. Until now, the College of Design, YunTech has already gained 2 awards for the visual communication design category and 3 awards for the design concept category. The descriptions of the awarding products are as followed:

The Animation, "Hut," which makes the busy people consider more about their lives

Invented by Jing-yi Chiu and Wei-cheng Tseng of Department of Digital Design, the visual communication category receiver adopts a camera and a light-bulb as the main roles. Under the atmosphere of remembrance of the past, it brings out the image that moths look for lights aimlessly which ends in a bad result. The animation intends to narrate the busy city people who run after false pieces and ignore the people, things, and objects around them which bring out a regretful result. Although the plots are simple, it conveys the warning to busy people vigorously.



The animation, "Hut," which was granted with the Red Dot Design Visual Category Award

The Animation, "Seeing the World from Two Feet High", which blooms the joys of childlike innocence

The other Red Dot Visual Communication Award receiver, "Seeing the World from Two Feet High," was invented by Shian-bo Chu and Jing-tzu Lin, Department of Digital Design. The invention is full of imagination and passion and more than 100 children's hand-paintings were added which makes the unique animation be filled with joys and fun of childlike innocence.

"Easy Drink," the water resource saving design

The Red Dot Design Concept Award Receiver, "Easy Drink," invented by student Shian-min Shu, Nai-wen Liu and Yo-shin Chen of Department of Creative Design was based on the concepts that bottles will not leak and people don't need to look up while drinking due to the diagonal bottle mouth which shows the high practicality and value on water resource design.

Cross-Chair

Invented by students Meng-jong Wu and Jia-jun Wu of Department of Industrial Design, the "Red Dot Design Award" project can reach the needed strength of the creativity of piling-up without any help of adding ribs based on the special shape. Both of the shape and function show the integration of power and beauty, which means the whole chair is in a simple shape without any additional number of ribs.



The animation, "Seeing the World from Two Feet High," which was granted with the Red Dot Design Visual Category Award





"Cross Chair" which was granted with Red Dot Design Concept Category Award

"Book Trolley" shows the flexibility of piling-up movement

"Book Trolley" was invented by students Yi-an Cheng and Yu-cheng Lai of Department of Industrial Design. The work was invented to solve the problem of narrow aisles of libraries. The basic concept of "Book Trolley" is to pile up several book cases which turn into a book trolley. All librarians need to do is to pile down the loaded book cases, combine three of them and push them which then becomes one book trolley immediately. The other way is to pile up the nearby book cases and pile them into a book trolley after categorizing or to hold only one book case then passing through narrow aisles will be much easier. Moreover, the narrow shape of the book trolley which makes it easily be put in the aisles can serve as a reader helper. The mentioned points make this book trolley highly marketing commercially.



"Book Trolley" which was granted with Red Dot Design Concept Category Award

## YunTech Had An Outstanding Performance at IENA Nuremberg

Since 2007, YunTech has participated in the "IENA International Trade Fair, Ideas-Inventions-New Products, Nuremberg Germany" and wins gold awards every year. As the greatest winner, YunTech presented 6 products which were granted with 3 gold and 2 silver awards at this fair that enters its 63rd year.

The "2011 IENA International Trade Fair, Ideas-Inventions-New Products, Nuremberg Germany" attracted nearly 750 entries from around 30 countries to compete against one another. The judges evaluate each product by its creativity and practicality. 5 of YunTech's entries did impress the judges and were granted with awards. The gold-award work was entitled "Green & Smart Refrigerator," invented by the group led by Professor Ten-chou Wan, Department of Safety Health and Environment Engineering. The main concept of the work was applying the technique of switchable glass to refrigerators which makes people able to see through the refrigerator to lessen the frequency of opening refrigerators, thus the electricity can be saved. The saved energy is near one power plant which shows its significance of the invention.

A group led by Professor Jhou-chung Chou, Department of Electronic Engineering, comprising students Wei-chuan Chen, Chen-wei Chen and Jien-chen Chen invented one work entitled "Multi-electrode measuring system." This work provides one electrode measuring system combining an instrument amplifier which reads current circuits by 8-channel framing with the data acquisition cards, USB-6210, by National Instruments to send digital signals of voltage sensors from the front to the end digitally. The measuring system is mainly from the LabVIEW and the functions include signal samples acquisition, digital filters, dynamic measuring, instant presentation and data storage. Moreover, the system analyzes the features of each unit and stores the numbers as records or graphic diagrams automatically. This measuring system measures quickly and is portable which shows its high market potential.

Under the instructions of Associate Professor Teng-wen Chang, Department of Digital Design, student Chong-yue Chang invented the work "AniStory." An Interactive

Learning Device for Children creative Learning” which is a story-telling assisting software for children. The main concept of the software is the combination of paintings and animation, which presents the interactions between children and the paintings they have drawn. AniStory plays as three roles for parents. They are accompanying, supporting and encouraging roles while parents are telling stories. Besides, the orders of graphic items of the animation can inspire children’s creative learning effectively.

One of the 2 silver-award works was invented by Professor Chu-ching Hsieh and his students Shin-han Chen, Shi-jing Li and Wen-bin Wong, Department of Safety Health and Environment Engineering. The work was entitled “Automatic control technology and system for removing cooking oil fumes,” focusing on the cleaning technique of cooking oil and fumes and the automatic control system which brings the positive attitude towards the cooking from ordinary people. The main composing item of the automatic control system is a single chip microcomputer which includes a sensor to measure the pH value and the amount of detergent under water. While being under different concentration environments, the system still maintains the removing rate steadily. The other silver-award work, “Surface

Treatment Method for Magnesium Alloy,” invented by the group of Associate Professor Shi-ying Chang and his students Shien-shue Lee, Wei-kun Chen and Yi-yuan Ko, Department of Mechanical Engineering. Covering trace elements with cryogenic alloy on the base of magnesium alloy, the method processes exothermic dispersion reaction under low heat treatment temperatures which makes the phase transformation coating film resulted from the surface become highly attachable, wearing-resisting and erosion-resisting. The method holds the advantages of easy processing, wide application, stable function and no pollution to the environment.



YunTech snares 5 awards at the IENA International Trade Fair, Ideas-Inventions-New Products, Nuremberg, Germany

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