

Newsletter of YunTech

National Yunlin University of Science & Technology

Taiwan R.O.C.

Volume 10, Number 2

2011

- N Student Ming-yu Lee of the Department of Cultural Heritage Conservation Is Recognized by Two World-wide Influential Design Awards 1
- N Graduate Student Fang-jiun Tsai of the Department of Industrial Design Wins the Silver Award at the 2010 Y.S. Creative Design Competition 2
- N The YunTech Department of Industrial Design Wins the Silver Award at the Fifteenth IBDC Design Competition 3
- N YunTech and Vilnius Gediminas Technical University, Lithuania Sign an Academic Cooperation Agreement 4
- N International Conference on the Conservation for Modern Paper Archives 5
- N 2011 International Conference on Environmental Emergency Response and Homeland Security 5
- N A Solar Powered Shuttle Bus Invented by YunTech 6
- N YunTech Wins the Exceptional Awards for the Second Consecutive Year at the 2011 Nationwide Evaluation of Student Clubs of Colleges and Universities 7
- N Department of Computer Science and Information Engineering Constructs an "Interactive Communication Environment for Future Life" 7



Awards and Commendation



"Fu Xin Cold Brewed Tea", award winning packaging design at the 2011 iF -International Forum Design

Student Ming-yu Lee of the Department of Cultural Heritage Conservation Is Recognized by Two World-wide Influential Design Awards

Graduate student Ming-yu Lee from the Department of Cultural Heritage Conservation of National Yunlin University of Science and Technology (hereafter called YunTech) designed a packaging for the Taiwanese tea and won the best of the best award at the 2010 Reddot Design Award and the award of the 2011 iF International Forum Design. Recognized by these two world-wide influential design awards, she became the pride of both YunTech and Taiwan's design realm.

Student Lee's design work "Ching Ching Hand Made Natural Tea" competed with more than 6,000 entries from 44 countries at the 2010 Reddot Design Award and successfully became one of the only 62 entries that received the "Best of the Best" award. In order to encourage students to take part in international

competitions, the YunTech Department of Cultural Heritage Conservation made efforts to help students apply for the MOE funds and for this competition received NT\$500,000. At the 2011 iF-International Forum Design, student Lee was listed again on the winner list for her outstanding sales packaging “Fu Xin Cold Brewed Tea”.

“After various years of work in the field of graphic design, the question of how to design something that represents Taiwan’s local culture came to my mind”, said student Lee. In order to find out the answer, she decided to go back to the campus and started the master’s program at the Department of Cultural Heritage Conservation in 2009. For her, culture is the essence of people’s daily life. Inspired by the instructions of professor Chun-his Lin, she integrated Taiwan’s tea culture into her creativity and designed the award-winning packaging “Fu Xin Cold Brewed Tea”. She applied the eco-friendly recycled paper as the packaging’s main material and presented it in the shape of bamboo basket which was used by the tea pickers in the early times. This entry was first recognized by the National Golden Pin Design Award and then recommended by the Taiwan Design Center to compete for the Reddot Design Award. This award-winning glory not only served as a precious opportunity for her, but also granted Taiwan’s local culture a chance to be understood and recognized.

Known as the Oscars in the design sector, the Reddot Design Award and the iF-International Forum Design are the largest and most reputational design competitions around the world. They represent the highest glory for all the designers. The design talent of student Lee was undoubtedly recognized when she gained these two international level design awards.



“Fu Xin Cold Brewed Tea”, award winning packaging design at the 2011 iF -International Forum Design

Graduate Student Fang-jiun Tsai of the Department of Industrial Design Wins the Silver Award at the 2010 Y.S. Creative Design Competition

Founded in 2002, the Y.S. Education Foundation is a technology education foundation jointly established by seven companies, including MiTAC Information Technology Corp., MITAC International Corp., Boclh Industrial Gases Corp., Synnex Technology International Corporation, Getac Technology Corporation, UPC Technology Corporation and Lien Hwa Industrial Corporation. The core value of the foundation is to promote Taiwan’s digital knowledge and apply it to help upgrade the industry so as to develop an information society that provides high quality public services and promotes people’s quality of life.

Sponsored by the Y.S. Education Foundation, the “2010 Y.S. Creative Design Competition” entered its eighth year. With “Lohas-Novelty” as the main topic, the competition attracted 705 entries, among which more than 300 entries were classified as the industrial design category. Miss Fang-jiun Tsai, graduate student of the YunTech Department of Industrial Design, beat the other competitors and won the silver award in the same category.

The judging panel for the competition was formed by professionals and professors from both industrial and academic sectors. They were Mr. Feng-chiang Maio, president of the MiTAC-SYNNEX Group, Mr. Hu-shi Jing, president of the Y.S. Education Foundation, Mr. Chen-yin Lee, president of Dynalab Inc., Mr. Kwang-min Chang, CEO of Taiwan Design Center, Mr.

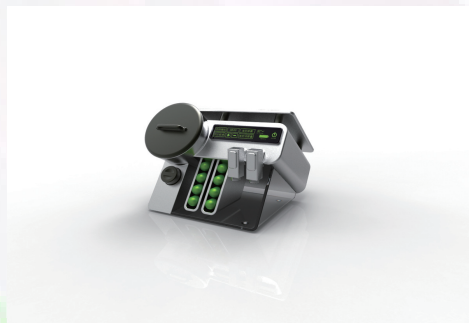


Silver award in the industry design category at the 2010 Y.S. Creative Design Competition

Roger Lin, director-general of Nova Design Corp., Mr. Sean C.K. Lee, regional director of iF Branch Office Taiwan, professor Yung-chin Tsao of the Department of Industrial Design of Tatung University, Mr. Ping-chia Li of the Styling Design Department of Hua-chuang Automobile Information Technical Center, Mr. Pin Ting, director of the Android Application Project of Google Taiwan, Mr. Lin-chieh Shangkuan, software & web developer of Microsoft Taiwan Corporation, Mr. Yan-bo Liu, technical assistant manager of the Front-end Platform Business Department of Microsoft Taiwan Corporation, Mr. Min-han Rao, senior R&D supervisor of Gamania Digital Entertainment Co., Ltd. and Mr. Jia-yuan Liu, marketing manager of Samsung Taiwan Corporation. In addition to serving as the judges, they were also invited to the awarding ceremony as the distinguished guests.

In accordance with the main topic of the competition, the silver awarded entry of the industrial category “Green Capsule” was designed to encourage people to grow vegetables by themselves and use the “Green Capsule” to recycle the kitchen waste which is later transferred into fertilizers. The fertilizers can then be efficiently used for the further vegetable planting.

In addition to being granted the bonus of NT\$100,000, NT\$60,000 and NT\$30,000 for the gold, silver and copper winning entries respectively, the winners for the 2010 competition obtained the opportunity to enhance their professional abilities by working at the MiTAC-SYNNEX Group. The foundation expected that the following competitions would attract more outstanding students and with their potential capabilities being discovered Taiwan’s creative industry could be developed and promoted.



“Green_Capsule”, the silver awarded entry of the 2010 Y.S. Creative Design Competition

The YunTech Department of Industrial Design Wins the Silver Award at the Fifteenth IBDC Design Competition

Held by the Department of Industrial Technology of the Ministry of Economic Affairs, the fifteenth International Bicycle Design Competition (IBDC) took place at the Taipei Nangang Exhibition Center and attracted the submission of 863 outstanding entries from 58 countries over the globe. The competition itself not only inspires new ideas about bicycle design in respect of style, structure and function, but also leads people to broaden their horizon by understanding the living style and tendency in other countries. In addition, it plays the role of infusing energy and new life into the bicycle products that already have a long history.

Under the instructions of professor Peng-jen Chen at the Department of Industrial Design, the “Somerset” designed by students Chen-wei Chang and Chia-chi Chang was recognized by a silver award. With the meaning of “turning a somersault”, the “Somerset”, based on the concept of “circle”, broke the general image of bicycles that are usually welded by various straight and horizontal tubes. Different from the traditional bicycles, the main body of the “Somerset” was constructed with an elliptical tube as its head tube connected the two tires. It’s a folding bicycle that was constructed with a completely new style and at the same time created values that are innovative and inspiring.

In addition to being recognized by the silver award, the “Somerset” received a “Giant Award” granted by



“Somerset”, recognized by the Merida Award

a renowned enterprise in Taiwan. It was developed to be a bike that can be produced and presented in “conceptualized pattern” and “commercialized pattern”. Improved by the Cycling & Health Industry R&D Center, the latter is capable of being produced and has market potential in the future. Praised by these two grand awards, the “Somerset” definitely represents a new spirit for Taiwan’s bicycle industry and will become a model that encourages the designers of young generation to keep working on the creative design.

The “Bihandy”, a bicycle designed by students Chi-gu Chen and Jie Tsai under the instructions of professor Yuan-liang Yu of the Department of Industrial Design, received the “Merida Award”. It is a convenient and functional bicycle and also won the “Excellent Award”. The design enables the “Bihandy” to be easily transferred into a trailer. The suitcase that is combined with the bike’s body can store personal belongings. It also can be used independently and carried by its owner. This concept of storage and portability is expected to avoid people from being too dependent on motorcycles and at the same time to achieve the purpose of energy saving and carbon reduction.



The silver award-winning entry “Somerset”



The silver award-winning entry “Somerset”



Academic Exchanges

YunTech and Vilnius Gediminas Technical University, Lithuania Sign an Academic Cooperation Agreement

Impressed by YunTech’s outstanding academic and research achievements under the dedicated leadership of President Yeong-bin Yang, Dr. Alfonsas Daniunas, vice president of Vilnius Gediminas Technical University, Lithuania, visited YunTech to sign an exchange agreement. He arrived at Yunlin on March 17 and was cordially received by president Yang. On the following day, the academic cooperation agreement and student exchange agreement were signed at the presence of vice president Alfonsas Daniunas and YunTech’s vice president Neng-shu Yang.

Before the signing ceremony, Dr. Daniunas was invited to visit YunTech’s Design-led Innovation Center, Eco-friendly House and Art Center so that he could be more acquainted with YunTech’s achievements in industry-academia cooperation. Dr. Daniunas expressed his admiration for YunTech’s distinguished performance not only in the academic development but also in the industry-academia cooperation. He deeply hoped that through the signed agreements YunTech’s successful experience could be brought back to Lithuania and learned by the faculty and students of Vilnius Gediminas Technical University.

In addition to Malaysia and Korea, YunTech is the third country in Asia to sign an agreement with Vilnius



YunTech and Vilnius Gediminas Technical University sign an academic cooperation agreement

Gediminas Technical University, Lithuania. In Taiwan YunTech is the only university that has maintained a cooperative relationship with this university in the Baltic Sea area. It is estimated that the signing of this academic cooperation agreement and student exchange agreement will make certain contributions to Taiwan's academic as well as research development.

International Conference on the Conservation for Modern Paper Archives

Held by the YunTech Department of Cultural Heritage Conservation, the "International Conference on the Conservation for Modern Paper Archives" took place on Wednesday, May 18, 2011 at the International Hall of the Southern Office of the Preparatory Office of Council for Cultural Affairs and Cultural Heritage, Executive Yuan.

The summer in Taiwan is generally hot and humid. It provides an unfavorable factor to the conservation of paper archives. Besides this unsatisfactory environment, the low-quality paper materials produced in recent years and people's indifference to the archive conservation have deteriorated the paper archives in Taiwan. In order to find out solutions, the conference was held, focusing on the factors that affect paper's durability and how to deal with acidified historical paper archives.

Various professionals were invited to deliver a speech at the conference, including professor Chih-chung Liao of the YunTech Department of Cultural Heritage Conservation, professor Tsang-chyi Shiah from the Department of Forest Products Science and Furniture Engineering of National Chiayi University, professor Masamitsu Inaba of Tokyo University of the Arts and director Sachie Toyotake at the R&D Department of Tokushu Tokai Paper Co., Ltd. It was expected that through the discussion and idea exchange at the conference, Taiwan's abilities and skills of conserving paper archives could be improved and enhanced.



conference poster

2011 International Conference on Environmental Emergency Response and Homeland Security

Conducted at YunTech on June 2, the opening ceremony of the "2011 International Conference on Environmental Emergency Response and Homeland Security" was presided over by Mr. Chih-yu Chang, director of the Executive Yuan's Office of Homeland Security and professor Wan-de Weng, associate dean of the YunTech College of Engineering.

As a result of the increasingly developing economic and industrialization in Taiwan, chemicals have been largely applied to the high-tech technology and petrochemical industry. Some man-made or natural disasters, such as chemical leaks and pollution, therefore become inevitable and seriously threaten people's safety, living environment and even homeland security. The environmental emergency response has thus gained more and more importance especially during the time when these kinds of disasters frequently happen.

Various distinguished guests were invited to the conference, including Dr. J.P. Gupta who serves as the president of Rajiv Gandhi Institute of Petroleum Technology (RGPT) and professor of Indian Institutes of Technology, Dr. Mohamad Pauzi Zakaria from University Putra and professor Pao-chiang Yuan of Jackson State University. They introduced the industrial security development in other countries, environmental testing technology and the community emergency response teams that are being promoted

in the United States. For the poster presentation in the afternoon session, more than 20 research papers were presented, focusing on chemical disaster prevention and response as well as technology and education for disaster reduction. Through the experience sharing at the conference, it was expected to develop Taiwan's emergency response technology and application, thus reducing people's loss of life and property when disasters and environmental pollution occur.

Outstanding Performance

A Solar Powered Shuttle Bus Invented by YunTech

The global warming has seriously affected the earth's environment over the past years. For this reason, more and more attention has been paid to the issues of energy safety and sustainable development. In order to save the planet, every country around the globe started to propose policies or measures, expecting to achieve the goal of energy saving and carbon reduction. The carbon dioxide emitted through land transportation vehicles per year occupies approximately the 16 % of all the carbon dioxide emitted through the human being in the world. In comparison with the costs of the cars powered by different fuels, an electric car only costs the one-ninth of a gas-powered car, the one-seventh of a gas-electric hybrid car and the one-thirteenth of a diesel-powered car. Based on this comparison, the car industry has been gradually focusing its development on the production of electric cars.



President Yeong-bin Yang (middle) rides in the solar powered shuttle bus

In view of this tendency, a research group led by professor Shi-chang Tseng, dean of the College of Engineering, and professor Jui-che Tu, associate dean of the College of Design, started to work on the invention of solar cars. The group comprising professor Cherng-shyong Chan of the Department of Mechanical Engineering, students Yu-huei Chang, Jiun-bin Lin, Chi-shiue Liu of the Department of Creative Design and students Chien-hung Chen, Fu-song Yang and Che-tsung Chen of the Department of Mechanical Engineering gained the MOE funding and successfully invented the first self-made solar powered shuttle bus after one year of design, test and adjustment.

The car was designed to carry six people and unlike the dependence of the traditional cars on gasoline and diesel fuel it was designed to be powered by car batteries. A solar panel was chosen to cover the car roof, through which the sunlight can be absorbed and transformed into the electricity that is to be supplied to the car. The appearance of the car was designed in response to the harmony between nature and landscape of the campus. Passengers who are sitting in the car can enjoy the beautiful scenery around them. For the convenience of the passengers, a special space at the back of the car was arranged for them to temporarily put their personal belongings.

Limited to the funds received, the group chose lead-acid batteries to be the power sources of the originally designed car and applied steel structure to the car's appearance in consideration of safety. Along with an



Professor Shi-chang Tseng, dean of the College of Engineering, explains that the lead-acid batteries are located under the seats for the purpose of space saving

electric motor, the car was developed to reach 20 kilometers or higher per hour for speed and can stay under operation for up to 3 hours. The batteries were placed under the seats so that more space could be appropriately arranged and used. In addition, the solar panel is controlled by a controller to efficiently charge and discharge the batteries, so that the solar powered shuttle bus can operate to the utmost of its power by efficiently using the electricity provided by the batteries.

In order to make contributions to the government's policy of energy saving and carbon reduction, YunTech has been making efforts to design green energy devices. The successful invention of this solar powered shuttle bus is considered a milestone for its efforts. It can be applied for a variety of purposes, such as tourism, travel and leisure, as well as energy efficient transportation. The research group will keep working on developing an electric car that is more efficient, lighter in weight and has longer operating duration. It is expected that through YunTech's eco-friendly green inventions and efforts, the goals of creating a sustainable green campus and developing a green community in Taiwan can be achieved in the future.

YunTech Wins the Exceptional Awards for the Second Consecutive Year at the 2011 Nationwide Evaluation of Student Clubs of Colleges and Universities

Hosted by the Ministry of Education, the "2011 Nationwide Evaluation of Student Clubs of Colleges and Universities" was joined by a total of 370 student clubs and associations from 162 private and public universities. The YunTech Business Administration Department Student Association and YunTech Ballroom Dance Club stood out in the technological university category and won the exceptional awards in the "self-governing and comprehensive" and "sports and entertainment" categories respectively. This is the second year that these two student clubs won the awards.

Professor Chun-wei Lin, dean of student affairs, indicated that through the university's traditional and core values, "Sincerity, Honor, Perseverance and

Originality", YunTech aims to foster students into professionals who have knowledge-management ability, are internationally competitive and place an equal emphasis on humanities and technology. It is ready to nurture individuals who are inspired by innovative ideas and engage in ethical conduct and compliance when completing tasks. Students are encouraged to take part in extracurricular activities through which they are trained to be creative and think independently. The award winning of these two student clubs not only serves as a glory to the YunTech student body, but also a great gratification to the faculty.



The YunTech Ballroom Dance Club wins the exceptional award in the "sports and entertainment" category

Department of Computer Science and Information Engineering Constructs an "Interactive Communication Environment for Future Life"

As a result of the increasing development of information technology and Internet, digital products have become indispensable in people's daily lives. Beginning from 2008, professor Chuan-yu Chang, director of the Department of Computer Science and Information Engineering, received a three-year funding from the National Science Council and formed ten research groups comprising professors and students from both the Department of Computer Science and Information Engineering and the Department of Industrial Design. The purpose of the groups was to develop advanced sensing devices that can help construct a healthy,

comfortable and safe living environment for the human being. They established an “Integrating Living Laboratory” where all the research results and devices are displayed.

President Yeong-bin Yang indicated at the opening ceremony of the “Integrating Living Laboratory” that the YunTech Department of Computer Science and Information Engineering is the first department in Taiwan to establish an “Open Source Research Center”. The department started to receive funding in 2006 from the National Science Council to work on an integrated project. The research groups led by director Chuan-yu Chang received a three-year funding of NT\$15,000,000 and implemented an open source project by focusing on constructing an “interactive communication environment for future life” and concretely realizing a “human

centered healthcare environment” via cyber-physical system.

In the “Integrating Living Laboratory”, several advanced technological systems were implemented, such as “face recognition access control system”, “emotion sensing and adapting system”, “surveillance and scenario control for home secure applications”, “health tracking system for elderly people”, “homecare robot”, “interactive wall system” and “electronic code lock”. Some of the technology have been transferred to the related factories and will be applied to create real products in the near future.



Surveillance and scenario control for home secure applications – fire monitoring system



Director Chuan-yu Chang demonstrates the household appliances control system

Publisher: Yeong-Bin Yang

Publication Office: National Yunlin University of Science and Technology

Chief of Newsletter of NYUST Editing Committee: Chu-Chin Hsieh

Chief Editor: Shinn-Hwa Chen

Executive Editor: Yi-Lan Dong

Translator: Yi-Ching Chou

Cover Design: Sheng-Hsiung Hsu

Tel: +886-5-534-2601

Fax: +886-5-532-1719

Address: 123 University Road Section 3, Douliou, Yunlin, Taiwan 64002, R.O.C.

http://www.yuntech.edu.tw

E-mail: aax@yuntech.edu.tw

