

4<sup>th</sup>

# National Industrial Innovation Award

An introduction of 2015 winners



Organizer: Ministry of Economic Affairs  
Executor: Chinese Association for Industrial  
Technology Advancement

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## Origin

Over the past decades, Taiwan has developed a solid foundation in advanced technologies. However, along with the changes in the industrial environment and rapid rise of the knowledge economy, “technology innovation” is no longer sufficient to support the Nation’s economic development. What we need today is the power to drive forward industrial development, and, to build this power, creativity, innovativeness, and the ability to create value will be essential. Therefore, to accelerate the development of a creative culture in Taiwan, the Act for Industrial Innovation was passed in 2010. And to build up advantages in the global economic and investment strategies, as well as to expand the opportunities for the development of the domestic economy, we have entered the Cross-Strait Economic Cooperation Framework Agreement (ECFA) and launched a series of strategic programs. With all strategies in place, we will be able to grasp the opportunity for a breakthrough in the economic development of Nation.

To further promote industrial innovation, the Ministry of Economic Affairs (MOEA) has instituted the National Industrial Innovation Award (NIIA). With “innovation” as its main axis, NIIA encourages Taiwan’s industries to take full advantage of the existing competitiveness to consolidate the industrial innovation and contributions generated from the technologies, services, and diverse cultures. Nomination of this award is focused on the added-values created to better the human life through innovative design and information technology, and encourages a change of mindset to create high added values instead of high production quantity. This program aims to identify and reward businesses, academic organizations, and research institutions which have made substantial contributions to the industry and for the better good of the Nation.

The National Industrial Innovation Award Program (NIIA) is currently the only government-sponsored program targeting on industrial innovation. Nominations for the awards include innovators from the industry, academic institutions, and research organizations. In addition to the goals of inspiring leadership in the industry and commending the teams and individuals in the supporting roles of industrial innovation, the researchers, this program has also an “organization” category to encourage innovation as an organizational effort, as well as “team” and “individual” categories to encourage cross-field co-operation.

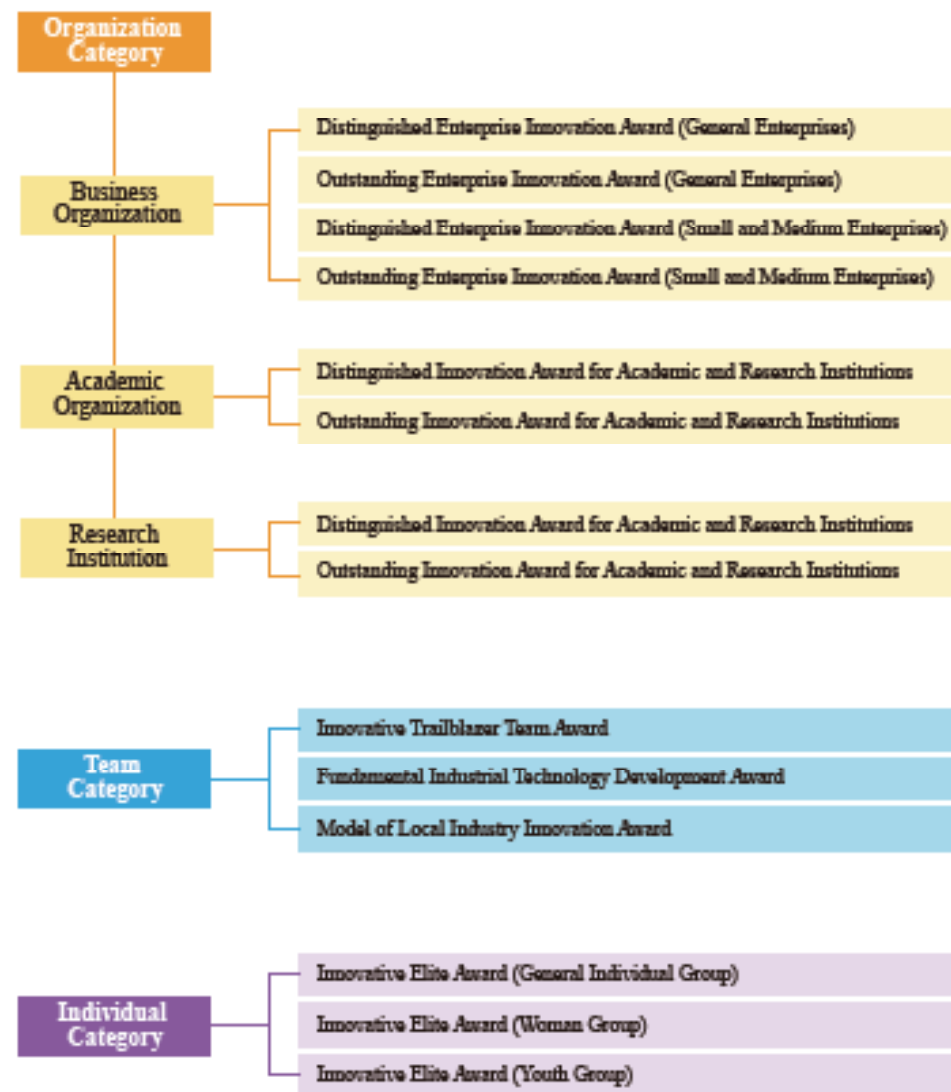
Through this program, we expect to provide the industries and research institutions a credible platform for evaluation of the innovative competitiveness and act as a driving force to push forward industrial innovation in Taiwan. This platform will not only promote rational dialogue and exchange among all participating businesses, scholars, organizations, and experts, but more importantly encourage the researchers in the industry, academic institutions, and research organizations to break away from the traditional technology-based thinking and move forward to develop service innovation. Through service innovation, we will upgrade the value of manufacture to the added-value of service, and the consolidated creativity will bring the industries in Taiwan into the age of blue sea.

The economy in Taiwan is going through a critical time, as we are working to upgrade our industries. The Ministry of Economic Affairs sincerely invites all domestic businesses, schools, organization-sponsored research institutions, and individuals to actively participate in the nomination process of NIIA. This is an opportunity to evaluate the innovative competitiveness through collaborated efforts and share the experiences with other innovators. We also expect that the outstanding innovators in the Nation will take a further step to turn the award-winning innovations into a force that drives the industries forward. Together, we will transform Taiwan from a “nation of manufacture” into “a nation of innovation” and open a new page to a “golden decade.”



## Nomination Categories

Group	Group Industries
<b>Precision Manufacture</b>	This category includes (I) metal industry, (II) electrical and mechanical industry, (III) transportation vehicles industry, (IV) automatic electrical components industry, (V) automatic control industry, and (VI) precision instruments industry and so on.
<b>Intelligent Technology</b>	This category includes (I) semiconductor industry, (II) IC design industry, (III) display panel industry, (IV) computer and peripherals industry, (V) communications and networking industry, (VI) mobile phone and telecommunication equipments industry, (VII) electronic components industry, (VIII) software industry and (IX) cloud computing technique industry and so on.
<b>Living and Healthcare Technology</b>	This category includes (I) medical and biotechnology industry, (II) healthcare industry, (III) food industry, (IV) material industry, (V) chemical industry, (VI) textile and fiber industry, (VII) glass and ceramics industry and so on.
<b>Green Energy Technology</b>	This category includes (I) solar power industry, (II) wind power industry, (III) optoelectronics and optics industry, (IV) oil and natural gas industry, (V) environmental engineering industry, (VI) green energy building materials and construction industry, and (VII) other energy-based industries and so on.
<b>Innovative Services</b>	This category includes (I) cloud computing service industry, (II) information service industry, (III) testing service industry, (IV) logistics and storage industry, (V) transportation service industry, (VI) legal and accounting service industry, (VII) human resource industry, (VIII) trade and retail industry, (IX) engineering consulting service industry, and (X) financial insurance industry and so on.
<b>Cultural Innovative and Recreation</b>	This category includes (I) cultural and creative industry, (II) digital content and publishing industry, (III) restaurant and tourism industry, (IV) intellectual properties management industry, and (V) education industry, (VI) architecture and design and so on.





## Organization Category

### Distinguished Enterprise Innovation Award (General Enterprises)

- Innolux Corporation ..... 10

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## Innolux Corporation

### Reasons for Winning

Innolux Corporation was founded in 2003 and merged with two other companies in 2010, marked the largest 3-into-1 merger in TFT LCD industry. Though the company once faced the global financial crisis, panel industry recession, and even in debt for NT\$500 billion; however, diligent efforts were made for 2 years to generate the differentiation in both technology (4K2K UHD TV) and marketing (multiple panel size). Innolux has transformed itself from a "specification follower" to a "specification establisher." Its production lines stretch across consumer electronics and special applications, and dominate in the categories of television, IT products, avionics, medical and automotive panels. Also, Innolux has released the customized service of "one stop shopping service", using streamlined production and adopting self-designed factory automation to successfully realize backend module manufacturing in Taiwan that was once labour-intensive. It had invested NT\$6 billion in Tainan during 2012, and created 7000 working opportunities. In the fourth quarter of 2014, it became the most profitable panel manufacturer in the world and has been so by the first quarter of 2015, and is the largest in Taiwan, third largest panel manufacturer in the world. It has achieved striking accomplishments.



### Business Philosophy

*Focus on core businesses and use "differentiation" to create "inimitable competitiveness".*

Dr. HC Tuan, Chairman of the Board and CEO

### Key Features

The application of LCD panel to meet the requirement of the digital world Innolux's breakthrough in the quality and performance of products is leading the industry to provide sustainable innovation with high quality, high contrast, super wide angle, low power consumption, environmental protection, high standard products, and strive to improve human visual enjoyment. Coupled with digital agitation drive, Innolux has now become an important leadership role in the global TFT-LCD Market.

### Company Profile & Business Contact Information

<b>Founded</b>	January, 2003
<b>Core Business</b>	Main products: TFT-LCD panel modules and open cells for Televisions, Desktop Monitors, Notebook PCs, Small and Medium Size Applications, Medical Application, Industrial Application. Touch Panels: Glass/Glass Capacitive Touch Panels, Glass/Film/Film Capacitive Touch Panels, One Glass Capacitive Touch Panels.
<b>Chairman of the board</b>	Dr. HC Tuan
<b>Address</b>	No.160, Kesyue Rd., Jhunan Science Park, Miaoli County 350, Taiwan (R.O.C.)
<b>Tel</b>	886-37-586-000
<b>Website</b>	www.innolux.com

## Ching Hung Machinery & Electric Industrial Co., Ltd.

### Reasons for Winning

Ching Hung Machinery & Electric Co., Ltd. was founded in 1975 and is globally known as "CHMER". Focusing its innovative technology on high precision, high efficiency, intellectualization and energy-saving, Ching Hung has developed the global pioneer "Gantry Moving Structure" to enhance mechanic and processing precision, the world's fastest "Automatic Wire Threading system" which takes only 6 seconds for a threading. Moreover, Ching Hung independently develops and owns all the hardware and software rights of PC-base "CNC controller" and is the first corporation in Taiwan (second in the world) to self-manufacture "Linear Motor" applied on EDMs. Ching Hung Machinery & Electric dedicates itself on key technology development in which its high precision technologies hold pace alongside with major Swiss and Japanese manufacturers, presenting the outstanding performance on how innovation can drive industrial upgrading. As the largest professional EDM manufacturer in Taiwan (5th in the world), its achievements are remarkable.



### Business Philosophy

*With holding the concepts of "integrity, growth, customer satisfaction, employee security" to achieve sustainable management, we dedicate ourselves to the technology and quality improvement of Taiwan's EDM industry.*

Wuu-Shyong Wang, President

### Key Features

Ching Hung Machinery & Electric Industrial, upholding the design concepts of "innovation, technology, green energy and efficiency" and a direction toward enhancing innovation value, introduces the "Q4025L- High Precision Gantry type Linear Drive Wire Cut EDM." This machine has 28 patented technology breakthroughs in the pursuit of high-precision, high efficiency, ultra-energy-efficient molds and parts processing in 3C, automotive, medical, aerospace and other industries.

The Q4025L's features include: A global pioneer gantry moving structure design that reduces floor space and enhances precision; a carrying in-house linear motor drive system, which is a non-contact drive and eliminates the backlash problem of traditional screw drive; the world's fastest Automatic Wire Threading system, which allows the threading action to be completed within 6 seconds with a nearly 100% threading success rate and day-and-night/non-stop automatic operation; and a new generation of energy-saving circuits, saving over 20% in electricity, leading in the sphere of energy-saving technology. Since this product was launched, it has accumulated five award recognitions, which affirm the innovative R&D value and extraordinary performance of the "Q4025L- High Precision Gantry type Linear Drive Wire Cut EDM".

### Company Profile & Business Contact Information

<b>Founded</b>	April, 1975
<b>Core Business</b>	CNC Wire Cut Edm, CNC Die Sinker Edm, CNC Drilling Edm, High Speed Milling Machine, CNC Tapping Center
<b>President</b>	Wuu-Shyong Wang
<b>Address</b>	No.3, Jing-Ke 1st Road, Nantun District, Taichung City 408, Taiwan (R.O.C.)
<b>Tel</b>	886-4-2350-9188
<b>Fax</b>	886-4-2350-9199
<b>Website</b>	www.chmer.com



## Digital Education Institute, Institute For Information Industry

### Reasons for Winning

Digital Education Institute (DEI) of Institute for Information Industry (III), made good use of government policies, planned innovative strategies, and cooperated with learning vendors, to help enterprises, government, schools build on-line learning environments. The establishment enhanced Taiwan learning culture and improved the output value of learning industry growth significantly. DEI not only brings learning into multiple value, drives the industry to develop international markets, but also creates a learning technology industry.

In the aspect of talent cultivation, DEI unifies the resources from the industry and the academia, through the creative sharing park and innovative training model to cultivate high-quality ICT professionals, high-level researchers and creative talents. The training amount has reached to more than 440,000 trainees, which enriched Taiwan's human capital, consolidated the development of information industry and the foundation of Taiwan society; moreover, exported the training experiences into global markets.



### Business Philosophy

Human Oriented  
Technology Application  
Service Innovation  
Education Sustainability

Jinn-Bao Lee, Vice President and Director General

### Key Features

DEI/III provides “Cloud OnO (Online and Offline) Training Services” to advance learner's employment, capabilities and entrepreneurship. The “Integrated Learning Services Model” can meet the learning needs from novice to sophisticated learner through the mechanisms such as learning maps, e-learning program, community discussion, industry information, expert guidance, off-line practice, etc., and assist different levels of learner to select his/her most desired courses by the most effective way to continuously improve his/her professional knowledge and skills.

For learning science researches, DEI started from e-learning, smart classroom to adaptive learning. They closely integrate various sides such as the demands, the system design, the teaching model, the experimental field, and promotion strategy at home and abroad as well, and the goal is to promote Taiwan learning industry internationalization. The developing model of adaptive learning is to combine two adaptive learning platforms (i.e. Kno and Smart Sparrow) with two teaching tools (i.e. IKnow and ITS 5); furthermore, to apply the research findings from automated learning style analytics, automated learning behavior analytics and automated question quality analytics into personalized adaptive learning.

### Company Profile & Business Contact Information

<b>Founded</b>	July, 1980
<b>Core Business</b>	Cultivation of ICT Industry Talents, Researches of Learning Sciences Promotion of Smart Campus, Operation of App Creative Sharing Park
<b>President</b>	Ruey-Beei Wu
<b>Director General</b>	Jinn-Bao Lee
<b>Address</b>	11F., No.153, Sec. 3, Xinyi Rd., Taipei 106, Taiwan (R.O.C.)
<b>Tel</b>	886-2-6631-6502
<b>Fax</b>	886-2-6631-6789
<b>Website</b>	www.iii.org.tw

## ADATA Technology Co., Ltd.

### Reasons for Winning

ADATA has dedicated itself to the development of DRAM, NAND Flash memory, storage devices, and other related products since its founding in 2001. Beginning 2010, the company initiated a brand re-engineering project, introducing innovative branding strategies and concepts alongside emphasizing online business and marketing. The re-branding also brought about a new logo design that reflects the vibrant and dynamic nature of ADATA and showcases a total focus on innovation.

ADATA further commenced cooperation with world-renowned Quality Control Corporation (QCC) and implemented Continual Improvement Processes (CIP) to ensure the finest quality in products and services. These principles have been integrated throughout ADATA via diverse activities and staff training. The ADATA brand has gained much recognition in recent years, driving growth on multiple levels, including co-marketing with communities such as PC enthusiasts and gamers, event sponsorship, and a rising social media presence. These have garnered ADATA the recognition of the ReBrand 100 Global Awards in 2012.

Over the previous decade, ADATA has maintained an average of NT\$24 billion in exports per annum. The company is currently the second largest memory maker worldwide and number one in the field among Asia and Taiwan-based manufacturers. In 2013, profits per share reached an impressive NT\$9.08, indicating the excellent return ADATA represents for customers and investors alike.



### Business Philosophy

*"Persist in creating international brand competitiveness with professionalism and innovation. Using our brand advantages to continuously enhance and grow our business performance, thus giving back to our shareholders and taking better care of our employees"*

Simon Chen, Chairman and CEO

### Key Features

ADATA XPG Z1 DDR4 memory modules are the first choice of gamers and PC DIY users seeking supreme performance, assured reliability, and utmost efficiency. XPG Z1 DDR4 supports the latest Intel processor platforms, including Haswell-E and Skylake, offering superior signal efficiency and lower power consumption compared to even the best DDR3 memory. XPG Z1 DDR4 leverages unique Thermal Conductive Technology, which significantly improves stability and reliability. Featuring a stand-out and award-winning jet wing-inspired aesthetic that has gained acclaim domestically and internationally among leading design award venues, XPG Z1 DDR4 represents ADATA's transformation into a premium brand trusted by enthusiasts and professionals around the globe.

### Company Profile & Business Contact Information

<b>Founded</b>	May, 2001
<b>Core Business</b>	<ol style="list-style-type: none"> <li>1. DRAM modules</li> <li>2. USB Flash drives</li> <li>3. Memory cards</li> <li>4. Solid state drives</li> <li>5. Portable hard drives</li> <li>6. Embedded multimedia cards (eMMC)</li> <li>7. Embedded multimedia cards + Multi-chip packages(eMCP)</li> <li>8. Mobile accessories</li> <li>9. Apple series accessories</li> <li>10. LED lighting</li> </ol>
<b>Chairman &amp; CEO</b>	Simon Chen
<b>Address</b>	18F, No.258, Liancheng Rd, Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)
<b>Tel</b>	886-2-8228-0886
<b>Fax</b>	886-2-8228-0887
<b>Website</b>	www.adata.com



## ScinoPharm Taiwan, Ltd.

### Reasons for Winning

ScinoPharm Taiwan Ltd. has global reputation in high potency & injectable active pharmaceutical ingredient (API) and has international competitive standard on the synthesis, purification and analysis of micromolecules and peptide analogs. So far, it has developed more than 50 kinds of APIs, having a variety that is ahead of other competitors and has become the leading manufacturer that supplies oncology APIs. Up until April 2015, ScinoPharm Taiwan has globally obtained 703 Drug Master Files (DMF), including 50 DMFs in United States and 24 oncology APIs with the American DMF. The total number of DMFs it has obtained is not only the top of its competitors, when compared with international competitors, it is also the manufacturer with the most DMFs in this category, showing the great strength and competitiveness of ScinoPharm Taiwan on product development.



### Business Philosophy

*Stand in Taiwan, lay eyes on the world, and run a business with conscience and ethics.*

Dr. Yung-Fa Chen, Chief Executive Officer

### Key Features

Positioned currently as a specialist developer and producer of highly potent and cytotoxic compounds and injectables, ScinoPharm has emerged as a leading supplier of oncology APIs where technological and facility barriers are high. In addition, the in-depth international pharmaceutical and regulatory experience of their senior management team has allowed them to create an API business environment similar to the much larger multinationals as they fully understand their stringent and cost-effective requirements.

### Company Profile & Business Contact Information

<b>Founded</b>	November, 1997
<b>Core Business</b>	ScinoPharm is a leading process R&D and active pharmaceutical ingredient (API) manufacturing service provider to the global pharmaceutical industry. With research and manufacturing facilities in both Taiwan and China, ScinoPharm provides a full range of API services from process development, production of early phase clinical trial material to large-scale manufacturing for commercial launches for brand companies as well as APIs for the generic industry. ScinoPharm operates a cGMP facility in full compliance with regulatory standards of US, EU, Japan, Australia, Korea, etc.
<b>Chairman</b>	Kao-Huei Cheng
<b>Address</b>	No.1, Nan-Ke 8th Road, Southern Taiwan Science Park, Shan-Hua, Tainan 741, Taiwan (R.O.C.)
<b>Tel</b>	886-6-505-2888
<b>Fax</b>	886-6-505-2898
<b>Website</b>	www.scinopharm.com

## Chi Mei Corporation

### Reasons for Winning

Chi Mei Corporation is the leading manufacturer in the petrochemical industry of Taiwan. It has flexibly faced challenges through the “service manufacturing” and “diversification”, changed itself from a petrochemical-based corporation to manufacturing electronic materials, and has been providing the world’s most complete solution of optical light guide plate/diffuser plate for display and LED lighting industries, as well as becoming Taiwan’s largest supplier of electronic chemical materials. It broke through the deadlock of Japanese domination in this industry, and enhanced the autonomy of Taiwan’s opto-electronics industry on a large scale. At the same time, by establishing the high standard of “environmental protection & industrial safety”, it continues to produce differentiated and high efficient green production capability. In this competitive environment, Chi Mei insists on using green innovations and fulfilling environmental demands, thus becoming the number one market occupant of ABS copolymer, PMMA copolymer and LGPs, and sets up the model for the green transformation of Taiwan’s petrochemical industry.



### Business Philosophy

*Adopting “service manufacturing” to face the challenges and variations flexibly to become the irreplaceable key role in customers’ minds and occupy a key position in the industry.*

Lin-Yu Chao, President

### Key Features

The company upholds its faith in assisting Taiwan’s optoelectronics industry to establish an independent supply chain, meanwhile developing its own technology, research and development capabilities and localized service to invest in the development of related areas. Among them:

“Optical-grade electronic materials”: The company has been transformed successfully from a traditional petrochemical venture into a high-value service-oriented manufacturing firm, bonding with three unique core technologies, material optics, geometrical optics and sheet extrusion technology, from material development to sheet production with different optical characteristics (plate, lenticular plate, non-printing plates) to sophisticated optical films, all readily available. The company provides the most complete solution for optical sheets.

“Electronic Chemicals”: The company has solid advantages in plastic rubber polymer synthesis and breakthrough electronic specialty chemicals. The company has been successfully overcome Japanese dominance in color resist, resin black matrix, photo spacer and other products, establishing the superiority of Taiwan’s autonomous supply chain. In the past three years, the company has made significant patent layout gains in Taiwan, Japan, Mainland China and the United States.

### Company Profile & Business Contact Information

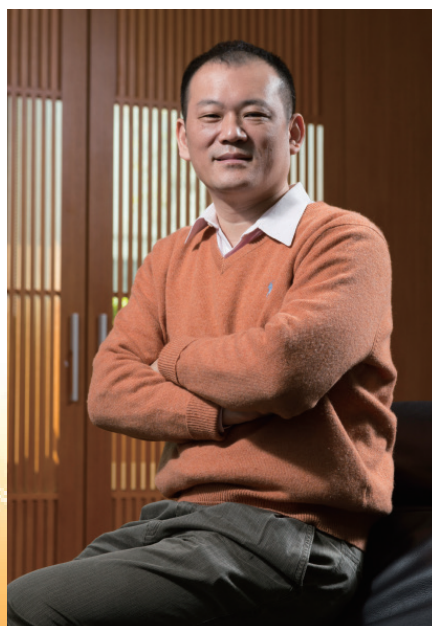
<b>Founded</b>	January, 1960
<b>Core Business</b>	<ol style="list-style-type: none"> <li>1. Plastic and Rubber Materials (e.g. ABS Resin, PMMA Resin, BR, etc)</li> <li>2. Materials for electronics applications (e.g. Light-guide Plate, Phosphors for use in LED lighting, etc.)</li> <li>3. Specialty Chemicals (e.g. photo-resist, polyimide, wet chemicals, etc.)</li> </ol>
<b>Chairman</b>	Chun-Hua Hsu
<b>Address</b>	No.59-1, Sanjia, Rende District, Tainan City 717, Taiwan (R.O.C.)
<b>Tel</b>	886-6-266-3000
<b>Fax</b>	886-6-266-5588
<b>Website</b>	www.chimeicorp.com



## Gain How Printing Co., Ltd.

### Reasons for Winning

The primary business of Gain How Printing Co., Ltd. is co-publishing. It introduced the CTP procedure in 1998, and uses highly computerized publishing procedures to build up a totally customized, highly efficient publishing process. It developed the strategy of "cloud technology co-publishing innovative business model" and organized the unique "B2B2C" business model. By receiving orders from the internet and through horizontal cooperations, it has integrated the services of self-designing, publishing, and transportation. It not only enhances service quality, but also saves costs and raises the satisfaction of realizing the customer's self-fulfillment, thus bringing about a new model of consumption. Its business model has brought about integrated values from upstream and downstream suppliers and has become the model of "manufacture servitization" development for Taiwan's manufacturing industry.



### Business Philosophy

*Continue to digitalize our production experiences, digitalize our data, network our software, and use cloud technology on the internet to transform publish manufacturing industry into publish service industry.*

Hsun-Chia Chang, General Director

### Key Features

Based on its "customer service" orientation, the company built a series of cloud services platforms, multi-payment mechanisms and O2O integrated one-stop production business service systems. Whether customers are the general public, the wedding industry, tourism industry, photographic industry or related groups, service portal network operators or school authorities, they can all get unique, personal, and exclusive low-cost, high-quality prints.

The service platform provides technical support directly through the cloud, and with APP cross-platform systems, there is no need to download any internet-editing software. Functions include an easy to operate, user-friendly, artistic layout. The features of the service include user-set and user-edited source files, digital printing plant that works with POD (Print on Demand), and cloud technology based on an order form to process customized product production, quality control, logistics and distribution to the consumer or franchised locations.

### Company Profile & Business Contact Information

<b>Founded</b>	December, 1997
<b>Core Business</b>	On-line Editor System
<b>Chairman of the board</b>	Yeh Tsui Lan
<b>Address</b>	No.230, Zhongming S. Rd., West Dist., Taichung City 403, Taiwan (R.O.C.)
<b>Tel</b>	886-4-2375-1958
<b>Fax</b>	886-4-2378-0822
<b>Website</b>	www.gding.com.tw/ gainhow.tw/

## China Airlines

### Reasons for Winning

China Airlines is the largest and the longest running airline in Taiwan. With creative value-adding, it introduced Taiwan's design energy into its brand reengineering process. With Eastern aesthetics as its foundation and the reproduction of simple and inclusive living art of the Song dynasty as its idea, it created the cultural & creative business model of "Originates from culture, presented in space, applied in the cabin, fulfills the brand." and achieved the core value of "From use to user; from function to felling; from Hi-tech to Hi-touch." It presents the uniqueness of Taiwanese culture, allows the passengers to have a whole new experience in the cabin and while traveling, and presents a new possibility for cultural & creative venues. It inserted Chinese cultural recognition among international aviation corporations and looks to retrieve Chinese people's right of speech on brands. As the initiation and destination station of Taiwan, China Airlines contributes in detail on the legacy marketing of Taiwanese culture.



### Business Philosophy

*With holding the idea of corporate citizen, we fulfill our corporate social responsibilities. China Airlines brings the best of Taiwan's human kindness and feelings to the international stage, allowing the world to see Taiwan. We make traveling a life aesthetic, allowing passengers to enjoy a reliable and pleasant trip.*

Huang-Hsiang Sun, Chairman

### Key Features

The China Airlines 777 cabin is designed around Song Dynasty aesthetics and the moment you step into the cabin you will notice the persimmon wood-grain, a first in the world. This together with the mood lighting creates a unique ambience aboard the aircraft. The cabin includes Premium Business Class with 180-degree fully-flat seats, Premium Economy Class with wider seat pitch and fixed backs, but also the first Family Couch seating in Asia that converts seats into a sofa fed for a whole new level of comfort. There is also the Sky Lounge that provides travelers with a leisure space and serves as a platform for Taiwanese culture. The fusion of Oriental and Western cultural philosophy in this traveling space showcases the amazing cultural creativity of Taiwan as well the serene dining culture of Chinese scholars to create a new and sophisticated style of travel.

### Company Profile & Business Contact Information

<b>Founded</b>	December, 1959
<b>Core Business</b>	China Airlines is Taiwan's largest airline with more than 11,000 employees worldwide. As one of the SkyTeam airline alliance's 20 members, China Airlines offers passengers access to an extensive global network of more than 16,270 daily flights to 1,057 destinations in 179 countries. China Airlines is continuing to promote superior aviation safety as well as an eco-friendly, innovative and attentive service that provides travelers with a perfect travel experience.
<b>Chairman</b>	Huang-Hsiang Sun
<b>Address</b>	No.1, Hangzhan S. Rd., Dayuan Dist., Taoyuan City 337, Taiwan, (R.O.C.)
<b>Tel</b>	886-2-412-9000
<b>Fax</b>	886-2-514-6004~6
<b>Website</b>	www.china-airlines.com.tw



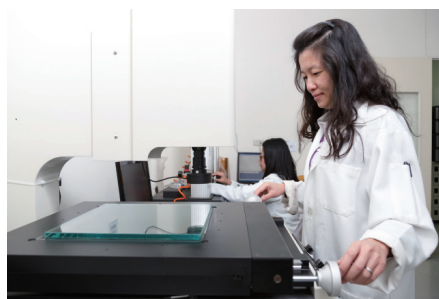


■ Living and Healthcare Technology

## Mortech Corporation

### Reasons for Winning

Mortech Corporation's major business item is polyimide film and its materials can be manufactured domestically in Taiwan. It provides the customers with a green manufacture process, and has the innovative technology to mass produce all sizes of polyimide films from 1/2 to 9 mil. Its technology is 100% independent and has its own R&D personnel and facilities. With the advantage of nearly 50% less facility costs and time costs on purchasing facilities, its products have been extensively applied in high temperature insulation and FPCB materials, such as cell phones, camera modules, touch pad modules, LCD panels, LED strips and other products, and is internationally competitive. Its business strategy and R&D compositions are clear, and aggressively uses the science technology guidance resources from the government to build up an outstanding R&D power and set up the R&D model for small and medium-sized enterprises.



Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



### Business Philosophy

*Establish key materials to enhance the industrial competitiveness of Taiwan. Mortech starts off from the concepts of innovation, aggressiveness and implementation to enhance production efficiency and provide the most satisfactory products and services for our customers.*

Andy Sun, Chairman

### Key Features

In response to the desiring demand from American smart phones, tablet and computer customers, Mortech innovative researched and developed the new product of "opaque black polyimide film". We provide both saving energy and reducing carbon footprint (non-black ink coating processing), the process is simple and once complete trust and good-processed products to flexible printed circuit boards and cell processing factories. For more deepen expanding innovations, we developed bright or matting, soft or rigid properties to meet customer multiple demand by customized products.

Mortech became the only one domestically and a few globally manufacturing company for the opaque black polyimide films with the patents protective by self innovative technologies. The most important contributions are to make the material can be quickly and stable localized supply for the industrial transformation or technology upgrading is no longer limited by foreign manufacturers to improve the overall competitiveness of the industry.

### Company Profile & Business Contact Information

Founded	September, 2004
Core Business	Polyimide film and related materials
Chairman	Andy Sun
Address	No.2, Gongye 2nd Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)
Tel	886-3-419-5560
Fax	886-3-419-2610
Website	www.mortech.com.tw



## GEOSAT Aerospace & Technology Inc.

### Reasons for Winning

GEOSAT Aerospace & Technology Inc. is a corporation involved in aviation, satellite technology, and geospatial information services. The unmanned aerial vehicles and telemetry technology it has developed, assisted with high precision GPS and navigation, contributes abundantly to the development of Geographic Information Systems (GIS) and has created a complete geographic database. In regards to innovations, the development of Unmanned Aircraft Systems (UAS) involves the systematic integration of aerial photography and monitorization, which is suitable for applications such as geospatial data collection, disaster response, land survey, and agricultural analysis. In order to provide professional consultation services, this systematic integration allows UAV operators to conduct large-scale and low-cost data analysis. This highly innovative technology has great development potential that can be extensively used on future business, and also lead to systematic Research and Development (R&D) of domestic UASs in upstream, midstream, and downstream markets.



### Business Philosophy

*As the only vertically integrated domestic corporation on remote sensing IDM, GEOSAT upholds the goal of pursuing technology independence by developing key technologies and parts.*

Cheng-Fang Lo, Chairman

### Key Features

The company controls four core integrated technologies for unmanned aerial vehicles; such as aircraft body structure design, ground control system data transmission and route planning, flight control system and global positioning system (GPS), and position and orientation system (POS), all of which can be assembled on UAVs of other manufacturers. The superiority of the product enables aerial work among low altitude clouds for more than 6 hours to shoot high-resolution images, which is helpful in land monitoring and variation analysis applications. Compared with satellites and manned aircrafts, UAVs have a low weather impact and high image resolution, which is conducive to terrain analysis interpretation. Also, via GPS / INS assistance and direct geographical positioning technology, dependence on ground control points can be significantly reduced after a disaster. For real-time applications with a lower demand for precision, it can even process rapid air triangulation calculations without a ground control station, and quickly obtain orthophotos and three-dimensional numerical terrain models to quickly update and immediately grasp land information.

### Company Profile & Business Contact Information

<b>Founded</b>	May, 2004
<b>Core Business</b>	Ground Control System, Flight Control System Global Positioning System, Position and Orientation System
<b>Chairman</b>	Cheng-Fang Lo
<b>Address</b>	12F, No.253, Sec. 3, Dongmen Rd., East Dist., Tainan City 701, Taiwan (R.O.C.)
<b>Tel</b>	886-6-335-1068
<b>Fax</b>	886-6-290-9405
<b>Website</b>	www.geosat.com.tw

## Wu Lien Incense Development Co., Ltd.

### Reasons for Winning

Wu Lien Spice Co., Ltd. uses “incense” as its core value and defines incense culture as “the media between mankind and religious belief”. Based on the traditional foundation of incense industry, it established the “Singang Incense Artistic Culture Garden”, adding creative values on traditional cultures, it promoted experience marketing such as: (1) incense DIY experience; (2) sculpturing with incense materials; (3) cuisine cultures and other cultural activities. It also developed many odors for traditional incense, and integrated traditional incense-making with cultural & creative business model, thus promoting this industry from “belief” to “spirit”. Through industry-academy cooperation, it broadens the application of incense in people’s lives. It also follows customer’s suggestions for R&D and service improvement references, and operates the market from B2C back to B2B. Therefore, it has competitive advantage among other competitors, and brings about fringe benefits and industrial value chain of incense culture.



### Business Philosophy

*With holding the core value of “sincereness”, “diligence” and “innovation”, we expect to pass on the art of incense with the establishment of a local, industrial, cultural, and educational theme park.*

Wen-Jhong Chen, Chairman

### Key Features

The company is committed to providing quality, service, localization and cultural value to the public. It upholds tradition, and has abided by the values of “sincerity,” “intentions,” and “innovation” since it was established more than 20 years ago. Step by step, it moves toward a combination of traditional culture and modern life. The company is convinced that its professional skills of incense production and its pure intention in incense arts and culture, uncompromising professionalism and seriousness are just like a lotus, distribute natural fragrances. “Incense” will enable a return to peace and nature, providing the leisure and lifestyle of the home incense arts.

To make consumers feel safe about using incense products, the company has appointed SGS for product inspection and engaged in industry-academia cooperation with National Chiayi University to help the public understand that, in addition to innovation, the company is also focused on maintaining quality. Moreover, the “Singang Incense Artistic Culture Garden” which the company set up, not only passes on traditional incense culture, but also tells the story of ancient incense arts and life aesthetics so that all visitors can learn about incense culture and experience the beauty of incense.

### Company Profile & Business Contact Information

<b>Founded</b>	June, 1997
<b>Core Business</b>	Incense product, aromatherapy associate for body and daily life
<b>Chairman</b>	Wen-Jhong Chen
<b>Address</b>	No.23-6, Caigongcuo, Xingang Township, Chiayi County 616, Taiwan (R.O.C.)
<b>Tel</b>	886-5-374-7897
<b>Fax</b>	886-5-374-0007
<b>Website</b>	www.incense-art.com.tw





■ Precision Manufacture

## Asia Neo Tech Industrial Co., Ltd.

### Reasons for Winning

Asia Neo Tech Industrial Co., Ltd. has the technology of drying processes during manufacturing, and is developing all kinds of automatic drying facilities. Its innovative strategy is focusing on the technology of temperature homogeneity, and has developed UV drying facilities with more than 90% of homogeneity in power, Auto Electrostatic Spray Coating Line, roll to roll conveyer and etc. Customized R&D takes up 70% of Asia Neo Tech's development. It can provide drying process solutions according to customer's demands with its independent technology development, intergrated with project resources, patent composition, and on-site services, thus creating a high barrier of entry for other competitors. It is also developing energy saving products to provide the best energy saving solutions for its customers. It has a training project for sustainable management, and introduced ERP, CRM, APS and HRM systems. It has the overall performance of industry development and domestic facility development, and its innovative operating performance is worthy of recognition.



Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



### Business Philosophy

*Asia Neo Tech incorporates focusing on its field, seeking further improvement, facing challenges practically, not being afraid of difficulties, having innovative thinking and breakthrough spirit into the corporate culture of professionalism, practicality, innovation and excellence.*

Ming-Chih Wu, General Manager

### Key Features

One of the company's main products is a fully automatic low-pressure spray coating machine, which is a breakthrough in solder masks in the PCB industry. It produces a layer of insulating ink through spraying, so that soldering, insulation and shielding can be done more solidly, which enhances the yield of PCB solder masking and board appearance. The product researched and developed to reduce labor cost and replace traditional printing methods is user-friendly solving the problem of time consumption in manufacturing. This product can also be operated without professional printing technicians, solving the problem of increasing labor costs, as well as overcoming client diversification in size demand and workflow complications, dramatically reducing costs, improving machine utilization rate, and increasing competitiveness in the market.

The company offers the best automated processes with minimal space needed on site to create maximum effectiveness, and helps the PCB industry enhance yield and performance, stabilize environmental manufacturing, and ensure customer assets.

### Company Profile & Business Contact Information

Founded	June, 2000
Core Business	Touch Panel, PCB, LED, Other Optoelectronic, Roll to Roll, Energy Saver
Chairman	Chuan-Kai Teng
Address	No.3, Huayu Ln., Shanying Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
Tel	886-3-359-1777
Fax	886-3-359-1776
Website	www.asianeotech.com



■ Living and Healthcare Technology

## Health Ever Bio-Tech Co., Ltd.

### Reasons for Winning

The main product of Health Ever Bio-Tech Co., Ltd. is the botanical new drug product, MCS-2, that treats Benign Prostatic Hyperplasia (widely known as BPH), and is currently on Phase III clinical trials in both Taiwan and the United States. MCS-2 is the first Taiwanese and the only Phase III clinical trial for BPH in the botanical new drug field. So far, no other botanical new drug Phase III IND for BPH have been approved by TFDA and US FDA. Recently an interim analysis for this botanical new drug candidate shows significant improvement in side effects. In the near future, this botanical new drug candidate has huge potential for the first-line and combined treatment for BPH. It will be a significant achievement in the research and development of Taiwanese botanical new drug.



Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



### Business Philosophy



*Health Ever Bio-Tech upholds the concept of "quality product and healthy lifestyle", manufactures botanical new drug products upon proven medical evidence, and dedicates itself on the R&D of unique botanical new drug candidates that could benefit the unmet medical needs in the world.*

Fu-Feng Kuo, Chairman

### Key Features

The company successfully obtained Phase III IND approval from Taiwanese FDA and the US FDA in 2009. The multi-country pivotal Phase III clinical trials were conducted in Taiwan and the United States. This is the first and only botanical Phase III clinical trials for the indication of Benign Prostatic Hyperplasia that have been approved by the US FDA and TFDA. The progress for the company's leading drug product, MCS-2, has been far ahead and recently completed the interim analysis for the Phase III clinical trials. The result shows MCS-2's significant improvement in the side effects and could potentially benefit millions of the patients once the new drug is approved.

### Company Profile & Business Contact Information

<b>Founded</b>	July, 2002
<b>Core Business</b>	Health Ever Bio-Tech Co., Ltd. (HEB) was established to focus on the unique botanical products backed with scientific and medical evidences, and is committed to researching and developing innovative new botanical drug products for today's great unmet medical needs.
<b>Chairman</b>	Fu-Feng Kuo
<b>Address</b>	11F-9, No. 186, Sec. 4, Nanjing E. Rd., Taipei 105, Taiwan (R.O.C.)
<b>Tel</b>	886-2-2578-8621
<b>Fax</b>	886-2-2579-3063
<b>Website</b>	www.hebiotech.com





阿邦師集團  
Bang-Master Group

■ Cultural Innovative and Recreation

## Bang Master Co., Ltd.

### Reasons for Winning

Bang Master Co., Ltd. follows the industry trend of second-hand boutiques and uses “authentication” as its core technology, and brings up new value to traditional pawnshops. Using technology application innovation, it transformed itself into a boutique auction, acquisition, authentication, barter and certification platform, redefining the role of second-hand boutique industry in the market. It cooperated with ITRI to develop distinguished authentication system using remote authentication service mechanism to establish international connections (Japan, China, France), digitalize and technologize authentication, enhance the precision of authentication, and establish its credibility to enhance second-hand boutique transparency to increase customers’ confidence. Also, with the systematic management with other colleague corporations, it hopes to create more revenue and allow this industry to conduct enterprise management. Bang Master has positive influence on the ecosystem of second-hand boutique industry.



Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



### Business Philosophy

*Using professional authentication to construct a kingdom of second-hand commodity circulation, Bang Master upholds the concepts of reliability, pleasure and profession to become the world's best boutique auction transaction broker.*

Jheng Pang Lee, CEO

### Key Features

Bang Master Group from pawnshop division started in 1965 in southern Taiwan, was founded in the process of continuous transformation, has become Taiwan's leading professional auctioneer, identified providers.

The Group provides three services:

Scientific identification and auction services: Used boutique industry and individuals to provide professional appraisal services, and roving auction, so you have more exposure and merchandise sold opportunity to create high revenue auction environment.

Retail sales service: bang master group has many independent sales outlets, bright and comfortable environment, customer service with the best selling skills, and has become the most important symbol of the division.

Appraisers training services: bang master group accumulated years of experience with the latest scientific identification technology, offering luxury goods in the mainland appraisers’ course, the establishment of quality appraisal benchmark for the majority of second-hand boutique mainland market.

Bang master group is a division of second-hand boutique complex of related industries, store sales, auction services, identification technology, quality imports, personnel training; you can find the industry's highest standards of elite teams in the division.

### Company Profile & Business Contact Information

<b>Founded</b>	June, 2006
<b>Core Business</b>	Second hand luxury bags, watches and jewelry
<b>CEO</b>	Jheng Pang Lee
<b>Address</b>	12F, No.1351, Zhongzheng Rd., Taoyuan Dist., Taoyuan City 330, Taiwan (R.O.C.)
<b>Tel</b>	886-3-302-7373
<b>Fax</b>	886-3-215-1010
<b>Website</b>	bang-master.com



## Cloud Computing Center for Mobile Application, Industrial Technology Research Institute

### Reasons for Winning

Cloud Computing Center for Mobile Application was founded in 2009 in ITRI. With system software technology for cloud data center as its principal axis, it trains large system software professionals and started the emerging cloud software industry. In recent years, it has developed 4 internationally competitive innovative technologies, and transferred its technologies to 8 industrial partners with the value of over NT\$ 200 million. In addition, it has brought about 6 academic science projects with the amount reaching NT\$ 450 million, and brought about the establishment of 7 derived companies and new ventures. If added with the 2 new derived companies that were established this year (2015), it has brought about the total investment of NT\$ 3.7 billion. Allying with domestic server manufacturers to develop and to export cloud datacenter solutions to major Japanese telecommunication companies, it helps the upgrade transformation of Taiwan's ICT manufacturers to develop homegrown cloud system solutions and has contributed to the shaping of domestic telecommunication industry value chain.



### Business Philosophy

*Using scientific R&D to bring about industrial development, create economic values, and enhance social benefit.*

Tzi-Cker Chiueh, Vice President and General Manager

### Key Features

ITRI Cloud Computing for Mobile Application Center (CCMA) is the first industrial research center aims to develop a large, data center scale system software -ITRI Cloud OS. ITRI Cloud OS has been designed to be open compatible with international, cloud open source standards including OpenStack, Open Compute Project (OCP), and Open Daylight. With ITRI Cloud OS, users can operate a datacenter scale IaaS service as the Amazon Web Service EC2 with less than 50% cost of leading commercial Cloud OS solutions. CCMA has made significant contribution to Taiwan industry by successfully transferring related technologies to major ICT industrial partners in Taiwan and deriving several new spin off companies in cloud system software space. CCMA does not only develop the ITRI Cloud OS as a highly integrated, one stop shop IaaS total solution, but also has built several large scale cloud application services, such as the videos surveillance PaaS-City Eyes, IOT PaaS-Cerebro and Secured Cloud Storage-Safebox, etc. Many of the technologies have been commercially deployed in National Tsing Hua University, Hsinchu City, New Taipei City, and Chung-Hwa Telecom, etc for providing public cloud services, which make CCMA a superior technology research organization with not only beef up the system software capacity to Taiwan's industry but also grow up representative commercial use cases to demonstrate production readiness.

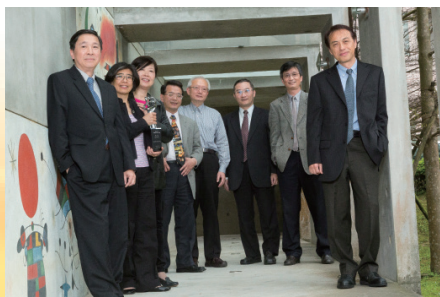
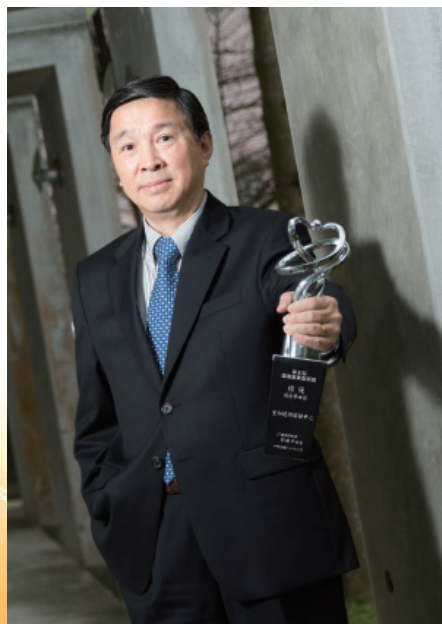
### Company Profile & Business Contact Information

<b>Founded</b>	September, 2009
<b>Core Business</b>	Providing cloud computing solutions for technology services of IaaS, PaaS, and SaaS.
<b>President</b>	Jonq-Min Liu
<b>General Manager</b>	Tzi-Cker Chiueh
<b>Address</b>	No.195, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan (R.O.C.)
<b>Tel</b>	886-3-591-2000
<b>Fax</b>	886-3-582-0040
<b>Website</b>	www.itri.org.tw

## Development Center for Biotechnology

### Reasons for Winning

Development Center for Biotechnology follows government policies and plays the role of a “second-runner” in the relay-race of new drug discovery and development in Taiwan. DCB adds values through preclinical development efforts which eventually lead to IND-filings. The resulting drug candidates are then licensed out to the “next-runner” in the relay - companies in the biotech-pharma industry - for clinical trials and the ultimate goal of product commercialization. So far, one new botanic drug is conducting phase III clinical trials, and one vaccine and one new small molecule cancer drug are conducting phase I clinical trials. For the past three years, it has licensed out 14 products and technology. DCB also established the first GLP biosafety laboratory in the Asia-Pacific region, and its services have stretched from Taiwan to Thailand and Korea. It has also brought in about 6 billion NT\$ foreign investment to build a research center in Taiwan. Therefore, DCB’s contribution in promoting Taiwan’s international reputation in the biotechnology industry is outstanding.



### Business Philosophy

*Adding value to early-stage new drug discovery projects, assessment of marketing strategies, and consulting services for Taiwan biotech companies in order to become the best partner of biotechnology industry.*

Been-Huang Chiang, Chairman

### Key Features

The organization performs preclinical development work for biologic drugs, small molecule drugs and new botanic drug. It has completed IND-filings and approvals for 10 drugs (9 IND approvals from TFDA and 4 IND approvals from US FDA). The organization has also established several core facilities that have obtained international certification, which include Taiwan's first GLP toxicology laboratory, a CGMP biopharmaceutical pilot plant facility, the Asia-Pacific region's first GLP biological safety testing laboratory, a GLP drug metabolism and pharmacokinetics laboratory, and an animal pharmacology laboratory with ISO17025. It has also successfully developed several new drug candidates which include: a botanic drug for diabetic wound healing in Phase III clinical trials, a nasal spray flu vaccine containing LT adjuvant that has completed Phase I clinical trials; and new mTOR anticancer target drugs in Phase I clinical trials. These new drug candidates have the potential to win the new drugs approval and these new drugs will have market potential for the biotechnology industry. In the future, the organization will focus on the development of antibody drugs, establishing an antibody gene library, humanized antibody engineering technology, an automatic antibody screening system, a bispecific antibody platform technology, and technology for constructing antibody-drug conjugates. These research and development efforts will lead to new innovations and intellectual property which have the potential to improve its international competitiveness in new drug development.

### Company Profile & Business Contact Information

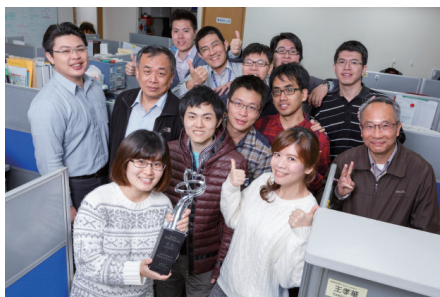
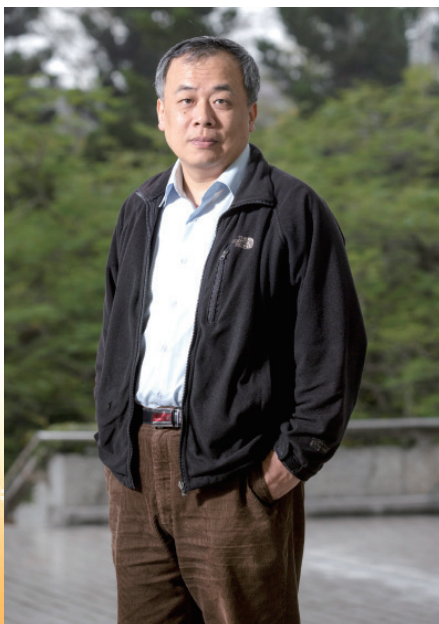
<b>Founded</b>	July, 1984
<b>Core Business</b>	Technology R&D, Industrial Services, Business Development
<b>Chairman</b>	Been-Huang Chiang
<b>President</b>	Lawrence G. Gan
<b>Address</b>	101, Lane 169, Kangning St., Xizhi Dist, New Taipei City 221, Taiwan (R.O.C.)
<b>Tel</b>	886-2-2695-6933
<b>Fax</b>	886-2-6615-1110
<b>Website</b>	www.dcb.org.tw



## Research & Development Center of IP Telecom, National Taipei University of Technology

### Reasons for Winning

Research & Development Center of IP Telecom, NTUT was founded in 2009 and has been dedicating itself on the development of IP-PBX and visual NAT-traversal technology, including the technology R&D on VoIP, VideoCloud, IM and IoT, and has successfully associated the PBX and IP-Cam of major manufacturers. It has obtained 16 invention patents and has applied for 22 more patents in the past 3 years. It owns many core patents and has transferred and authorized a partial of its technologies to manufacturers and founded the derived company of Bronci Corp. This center has dedicated itself to the R&D of industrial technology for a long period of time, developing technologies that have industrial value and is successful in using academic energy to invest in the R&D of practical manufacture technologies. It has sought the appropriate exportation for technology innovation by connecting with the manufacturers. The amount of money of technology transfer has exceeded NT\$ 20 million, further receiving more than NT\$ 17 million by accepting industry appointment, and accumulated a sum of more than NT\$ 37 million by cooperating with the industry. It sets up an outstanding demonstration effect for Taiwan's universities and vocational schools.



### Business Philosophy

*Research practically, set foot on patents and enhance industry competitiveness.*

Shaw-Hua Hwang, Professor

### Key Features

The research team proposed the NAT traversal technology firstly and has received eight patents. This patented technology and applied to real-time video streaming system, a number of manufacturers have been using, and related derivative products have been sold to Europe, America, Japan and other countries. These patents and technology will help to improve the domestic video industry.

### Company Profile & Business Contact Information

<b>Founded</b>	May, 2007
<b>Core Business</b>	Technology Transfer, Industry Cooperation
<b>President</b>	Leehter Yao
<b>Professor</b>	Shaw-Hwa Hwang
<b>Address</b>	No.1, Sec.3, Chung-Shao East Road, Taipei 106, Taiwan (R.O.C.)
<b>Tel</b>	886-2-5550-4261
<b>Fax</b>	886-2-5550-4210
<b>Website</b>	www.iptnet.net

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■ Precision Manufacture

## Cycling & Health Tech Industry R&D Center

### Innovative Program

Power Assisted Handcycle

### Reasons for Winning

This center's target is to help physical disabled people to be able to move freely. In recent years, it has been actively developing the technology of power-generated handcycles, and further improving the designs of lightweight and dismantlability. By using computer simulation to analyse kinesiology and biomechanics, it expects to enhance the applicability of its products, to improve the comfort and safety of physical disabled people, and to search for a niche market for Taiwan's bicycle industry. It has so far obtained 18 patents and is simultaneously promoting to set up standards, fighting for road rights, and transferring its technologies to factories for further production. Using industrial value chain to establish contacts, it has constructed a model of complete R&D, technology transfer, commercialization and a service model to create industrialization benefits. Starting from a humanitarian view point and stretching out to social caring, it not only allows the people to acknowledge its existence, but also has evident contribution in assisting physical disabled people stepping into society.



Innovative Trailblazer Team Award



### Business Philosophy

*People-orientation is the route to discover market demands and the foundation for creating product values.*

Francois Liang, General Manager

### Key Features

Power assisted handcycles have lightweight, dismantlable and foldable designs. It has twenty-seven-speed derailleur and is applicable on any kind of roads. After being dismantled and folded, the handcycle can be placed in car trunks, further enhancing the product's portability and applicability. Using the assistance of kinesiology and biomechanics simulation analysis, the applicability on different landscapes and the comfort and safety of physical disabled users has been enhanced. With the construction of an innovative service model, it allows physical disabled friends to enjoy customized and systematic training and services, and enjoy the pleasure of participating in all kinds of bicycle activities.

### Team Profile & Business Contact Information

<b>Organization</b>	Cycling & Health Tech Industry R&D Center
<b>Team Leader</b>	Francois Liang, General Manager
<b>Address</b>	No. 17, 37 Rd., Taichung Industry Park, Taichung 407, Taiwan (R.O.C.)
<b>Tel</b>	886-4-2350-1100
<b>Fax</b>	886-4-2350-6624
<b>Website</b>	www.tbnet.org.tw





## Intelligent Technology

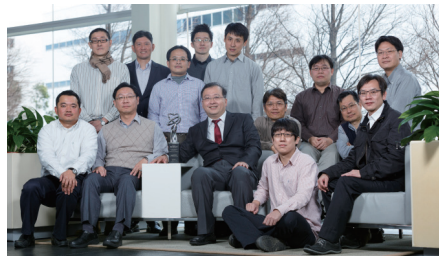
### TSMC Mixed-Signal & RF team, Taiwan Semiconductor Manufacturing Company Limited

#### Innovative Program

0.18  $\mu\text{m}$  High-Resistance SOI Based RF Technology Development for 3G/4G RF Front-End Module

#### Reasons for Winning

Built upon the process capability of an 8-inch wafer factory, this team creates new technology with high added-value. By using existing factories, facilities and small equipment expenditures, this team developed a 0.18  $\mu\text{m}$  high-resistance SOI-based RF technology for 3G/4G RF front-end module for TSMC. By creating a product that can be adopted in 3G/4G multi-generation mobile communication technology, it allows RF CMOS technology to be developed and applied in mobile phone front-end module, thus dropping the price of build-in modules by 30% and shrinking the size of circuit board by 50%. This technology allows TSMC and domestic industries to build an industry supply chain on wireless RF module components and enhance its technology threshold. It is expected to bring positive impetus for the upstream and downstream companies of TSMC. With its forward-looking innovative technological value and contribution, it is meaningful in creating new industry frontiers for Taiwan.



## Innovative Trailblazer Team Award



#### Business Philosophy

*This essence of innovation is a strenuous adventure. It won't pay off before enduring hard works.*

C.P. Chao, Director

#### Key Features

A RF CMOS technology platform is successfully built up using high-resistivity silicon-on-insulator substrate. This platform provides a silicon foundry technology solution for the rapid growing chip-market of cellular and Wi-Fi RF front-end module (RF FEM). With the silicon process inherited advantages of lower fabrication cost and easier circuit function integration, chips made from HRSOI is expected to replace GaAs as the mainstream for RF FEM. At 2018, the total revenue for RF FEM chips is estimated at 240B NT while chips made from HRSOI would have more than 55% market share with estimated revenue exceeds 144B NT. The new technology platform will also trigger new market opportunities for other segments among Taiwan's semiconductor supply chain such as silicon substrate vendor, IC design and package companies.

#### Team Profile & Business Contact Information

Organization	TSMC Mixed-Signal & RF team, Taiwan Semiconductor Manufacturing Company Limited, TSMC
Team Leader	C.P. Chao, Director
Address	No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300, Taiwan (R.O.C.)
Tel	886-3-563-6688
Fax	886-3-563-7000
Website	<a href="http://www.tsmc.com.tw/chinese/default.htm">www.tsmc.com.tw/chinese/default.htm</a>

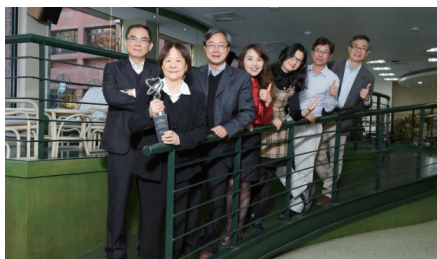
## Material and Chemical Research Laboratories, Industrial Technology Research Institute

### Innovative Program

Lead Petrochemical Industry to Build Industrial Competitiveness

### Reasons for Winning

This team utilizes upstream petrochemicals and bio-based chemicals obtained from biomass as fundamental building blocks to derive value-added chemicals and materials. Domestically overproduced PTA was converted to CHDM as the key intermediate for the synthesis of high value PCT/PETG/PCTG. Through the integration of mid- and down-stream industries, development of new products and new materials, and utilization of both biomass feedstocks and green manufacturing processes, the team has strategically led the transformation of Taiwan's petrochemical industry. In so doing, the team has provided sustainable material for emerging industries and value-added products to meet consumer demands, as well as helped form alliances and value chains in the petrochemical industry; the team has also established competitive technologies, thereby granting Taiwan a global competitive edge in the industry.



### Business Philosophy

*Grasp global dynamics and industrial needs to build an operational system with rolling plan to create an incubator for rapid developing high value-added materials.*

Yu-Min Peng, Vice President and General Director

### Key Features

Responding to the industry's change due to the rise of international oil shale, low investment on Middle East petrochemical industry, and the rise of China's petrochemical industry, it uses high-valued technology investment of petrochemical industries to make flexible usage of existing domestic production capacity. Using upstream raw petrochemical raw materials as its foundation, it creates differentiated/high grade materials, and further initiates high-surplus application of the fundamental building blocks and biomass materials from upstream placement biomass raw materials. By combining midstream and downstream industries, it develops new ranking/new materials to provide added-value application demands on independent materials from emerging industries and people's lives, and forms industry connection and value chain to achieve the substantial capacity of upstream high-surplus value transformation, thus achieving the substantial capacity of upstream high-surplus value transformation.

### Team Profile & Business Contact Information

<b>Organization</b>	Material and Chemical Research Laboratories, ITRI
<b>Team Leader</b>	Yu-Min Peng, Vice President and General Director
<b>Address</b>	No. 195, Chung Hsing Rd., Sec.4, Chutung, Hsinchu 310, Taiwan (R.O.C.)
<b>Tel</b>	886-3-591-8481
<b>Fax</b>	886-3-591-0035
<b>Website</b>	<a href="http://www.itri.org.tw/chi/">www.itri.org.tw/chi/</a>

## Compal Nano Imprint Lithography Team, Compal Electronics, Inc.

### Innovative Program

Nano Imprint Lithography Process with Green

### Reasons for Winning

“Nano imprint lithography technology” developed by this team can conduct nano imprinting on metal surfaces to reinforce the metallic texture and visual appeal of their surfaces, and produces products with special features. This can replace the traditional anodic oxidation treatment by saving water, power, and raising the defect-free rate, thus gaining a technology advantage worthy of recognition. This technology approaches zero-pollution and recycle efficiency of nearly 100%, and can be applied on various backing materials. This is well suited for international trend of eco-friendly development and can apply advantageous, eco-friendly manufacturing processes to Taiwan’s ICT industry. With this potential technology, it is expected to create considerable production value, and create an example for Taiwanese sustainable development products.



### Business Philosophy

*The goal for innovative design is to pursue a better life and future for mankind, but its ultimate meaning is the management and maintenance of a sustainable Earth!*

Shikuan Chen, Vice President of Central Innovation & Design

### Key Features

In 2013, the electropolishing technology of aluminum alloy-anodic oxidation created a production value of 22 million tons throughout China. For processing 1 ton of aluminum alloy, 400 degrees of electricity is used, and 4.67 million tons of CO2 emissions are created. During the manufacturing process, the waste of water resources and sewage wastes exceed 5.5 billion tons. This is a power consuming manufacturing process that severely pollutes the environment, not to mention numerous illegal emissions that also occur. To pursue the glamorous texture of metal surfaces, consumers also indirectly cause environmental damage. Compal hopes innovative R&D can cause imperceptible influences on the whole supply chain. Meeting current global trends, nano imprints can be applied in high-tech superficial treatments of various materials. Patterns on the moulds can be duplicated to 99.9% and uses eco-friendly drying method manufacturing processes that take place in clean rooms throughout the process. Another highlight is that it solves the numerous energy consumption and sewage pollution problems caused due to traditional anode treatment and spray paint.

### Team Profile & Business Contact Information

Organization	Compal Nano Imprint Lithography Team, Compal Electronics, Inc.
Team Leader	Shi-Kuan Chen, Experienced Vice President of Compal Design
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Fax	886-2-2797-8203
Website	www.compal.com



## Information and Communications Research Laboratories, Industrial Technology Research Institute

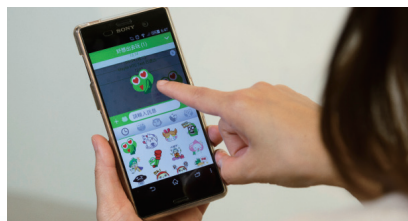
### Innovative Program

Juiker -New Generation of Mobile Communication

### Reasons for Winning

In the first year of its release, Juiker reached over a million downloads and over 10,000 companies, 1000 schools, and the government's request to participate in Juiker's proof of service trial. Juiker was one of the earliest, if not the first, B2B social communication platform designed to address the fraud, security, privacy, content and cost issues need by corporation to communicate with its own members and communities.

Juiker federated cloud platform enable corporations to secure their internal data, virtualize their communication systems and empower their employees with a new tool spanning both IT and telecom systems. Corporations using Juiker experience higher employee productivity, better customer experience and lower overall cost. Juiker partner and cooperate with telecom and IT companies to provide features such as open-source data, cloud-based directory, anti-fraud mechanisms, encrypted transmissions, secure authorization and integration of internal ERP, PBX, MVPN systems.



### Business Philosophy

*I want to put a ding in the universe.*

Paul Huang, Director

### Key Features

Juiker was designed to closely integrate both the IT and telecom worlds. Overcoming the initially knee-jerking instinctive protectionism, Juiker has gained acceptance by both industries by helping these them transition smoothly and embrace the disruptive cloud platform that is rapidly consuming today's world. Juiker is rapidly becoming a platform of choice for telecom and IT companies. The Juiker team is very honored to receive the 4th National Industrial Innovation Team Award. The Juiker team truly appreciates the support by the public, the media, the government, the participating companies, and the judges. Special thanks goes to the Ministry of Economic Affairs, the Department of Industrial Technology and the Industrial Technology Research Institute.

### Team Profile & Business Contact Information

Organization	Information and Communication Research Laboratories, ITRI
Team Leader	Paul Huang, Director
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Website	tw.juiker.net



## CAFÉ (Cloud Appliance for Enterprise) of Data Analytics Technology & Application Research Institute, Institute for Information Industry

### Innovative Program

CAFÉ (Cloud Appliance for Enterprise)

### Reasons for Winning

Taiwan has no operating system software development capabilities in the past. CAFÉ became the first cloud system software that was developed successfully by Taiwan's own R&D team.

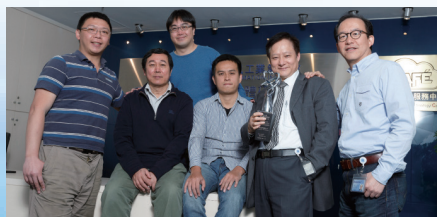
Our strategy for developing the CAFÉ technology and products has targeted the small and medium business (SMBs) market from the beginning. For this, the system software was designed to maintain 5 key features: easy to use, easy to manage, easy to update, low cost, and secured. Some government agencies and local companies are already starting to replace their existing, expensive cloud system software from global brands with CAFÉ.

CAFÉ's first international success was through CloudMaster, a joint venture between Syscom (a Taiwanese software & service company) and Tokai Communication (a Japanese Utilities and Data Center operator) which had successfully brought CAFÉ to the Japanese market and Tokai uses it in its Data Centers to provide Hosted Private Cloud and cloud storage services (Pracla and Kumokura).

This program has also trained more than 120 cloud system software talents for the country. Eight local computer manufacturers had acquired the CAFÉ technology through a technology transfer program.



Cloud Appliance For Enterprise



### Business Philosophy

*By focusing on the needs of small & medium businesses(SMBs), we created simple, easy to use, easy to manage, inexpensive and secured cloud solutions that can help Taiwan's ICT Industry to gain a foothold in the worldwide cloud solutions & services for the SMBs market.*

Dr. Ko-Yang Wang, Executive Vice President, III

### Key Features

Key features of the cloud system software CAFÉ include:

- (1) Private Cloud Appliance for Enterprises (CAFÉ). CAFÉ can be integrated with computer servers from hardware equipment industry to provide SMBs with simple, easy to use, easy to manage, secured and inexpensive private cloud solutions. It supports system efficiency, resource sharing, high availabilities, fault tolerance, etc. The Asus Cloud Appliance is such a solution.
- (2) Another solution based on CAFÉ is to work with the Data Center vendors to provide hosted cloud services. Our lean solution makes it possible for IDCs to provide the needed services with low cost (as low as \$2000 USD a month for a two-server private cloud configured with high availability). In this way, the SMBs can enjoy the benefits of the cloud by leveraging the IDC's cloud management expertise without the need for hiring experienced cloud engineers and building expensive machine rooms or paying an arm and leg for hosted cloud services. CAFÉ has been integrated with HP Cloud Service Automation and VMware vCenter.
- (3) Storage Cloud (COSA), COSA can be integrated with storage products from hardware equipment industry to provide file sharing, synchronization, and backup services. This allows the SMBs to own their own secured storage cloud without putting their most precious data at risk on the public cloud. COSA also supports content management functions.

### Team Profile & Business Contact Information

<b>Organization</b>	CAFÉ (Cloud Appliance for Enterprise) of Data Analytics Technology & Application Research Institute, Institute for Information Industry		
<b>Team Leader</b>	Dr. Ko Yang Wang, Exclusive Vice President		
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<b>Website</b>	www.iii.org.tw		

## Smart Textiles Research Team, Taiwan Textile Research Institute

### Innovative Program

Promotion and Development for Smart Textiles and Related Applied Products

### Reasons for Winning

This team is a cross-border technology intergrated platform in which it intergrates IC and textile industries to develop wearable interfaces, including LED yarn, textile electrode, flexible heating modules, flexible super capacitors and other modules. Responding to the new global trend of wearable technology that focuses on rising niche markets like safety warnings, sport management and consumer electronics, we seek to develop bicycle windbreakers, smart sweats, assistive devices for cardiac rehabilitation, electric heating clothes, energy-saving packs for bicycles and other highly potential products. With industrial diffusion through technology transfer and technology commercialization, it also builds an integration of upstream and downstream corporations and alliance between different industries. In total, it has brought together 5 industry alliances and supply chains, 3 sales platforms for independent brands, and 1 newly-established energy textile company. By enlarging the business scope of textile industry and enhancing the confidence of horizontal cooperation and R&D, it expects to lead Taiwan's textile industry to recreate its value of production and employment opportunities, and contributes substantially to the upgrade of textile related industries.



### Business Philosophy

*Break through the tradition. Integrate experts from different fields with limited resources to maximize team effectiveness.*

Chien-lung Shen, Chief

### Key Features

LED yarn, textile electrodes, flexible heating modules, flexible super capacitors and other smart textile modules developed in this project are in response to the high development potential of the new global trend of wearable technology. This project is a cross-border technology intergrated platform in which it intergrates IC and textile industries to develop wearable interfaces. Using innovating textiles as its foundation, it develops various kinds of textile modules that are equipped with electronic functions, in which they have the texture of textiles, feel comfortable when wearing them, and are washable. It is oriented by market demand and implements industrial diffusion through technology transfer and technology commercialization, focusing on rising niche markets like safety warning, sport management, health promotion, consumer electronics and etc.

### Team Profile & Business Contact Information

<b>Organization</b>	Smart Textiles Research Team, Taiwan Textile Research Institute, TTTRI
<b>Team Leader</b>	Chien-lung Shen, Chief
<b>Address</b>	No.6, Chengtian Rd., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C.)
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<b>Website</b>	www.tttri.org.tw



## Green Energy Technology

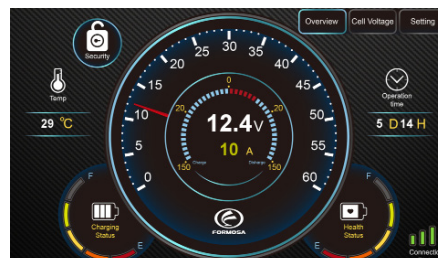
### Power Battery Pack Project Team, Formosa Plastics Transport Corporation

#### Innovative Program

Formosa LFPO Smart Power

#### Reasons for Winning

This team develops the application of new power materials to build a highly reliable power module to replace lead acid battery with “LFPO batteries”. It meets RoHS regulations of EU, and also passed the safety regulation recognition of UN38.3, CB, PSE and CNS, and is the first Asian product that passed international safety regulations. 60% of the global lead acid batteries are used as engine starting batteries for vehicles. Therefore, this product’s feature is to use “green energy” as its market target, using pollution-free eco-friendly batteries to enhance the conversion efficiency of secondary batteries, lengthen its operational life, enhance the combustion efficiency of the engine, and reduce carbon emissions to slow global warming down. As for its marketing model, it uses technology transfer to enlarge its production capacity and reduce its production costs. With an innovative strategic target and evident core value, the industry value it has created and synergy it has organized are concrete with development potential and are worthy of recognition.



#### Business Philosophy

*FPC will work harder continuously to combine LFPO batteries with other green energy industries to constantly improve their quality, reduce costs, and universalize LFPO batteries.*

Seiko Chen, Chairman

#### Key Features

Formosa Plastic Corporation dedicates itself to the R&D of green energy industry, combining the technology and raw materials of Formosa Plastic Group, it pays more attention on the consumers’ safety and products’ quality reliability. Besides being manufactured by professional teams, its products also have passed a year of harsh tests, had the warranty period of 3 years, and NT\$ 3.2 billion of product liability insurance. Formosa LFPO Smart Power leads its industry in many design patents, and has reached the perfection of 6S: safety, save energy, smart, security, satisfied and sustainability. It also passed the strict verification of third-party units, proven that batteries from Formosa Plastics is highly reliable, highly secured and high in quality which matches international standards. At the same time, it is also the first Asian LFPO engine starting battery that passed the recognition of international safety regulations.

#### Team Profile & Business Contact Information

Organization	Power Battery Pack Project Team, Formosa Plastics Transport Corporation
Team Leader	Seiko Chen, Chairman
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Website	www.formosabattery.com



**Precision Electronic Division,  
Shuz Tung Machinery Industrial Co., Ltd.**

## Innovative Program

Fundamental Technology of Automatic LCM JI-line for 4K2K Large Display

## Reasons for Winning

Carry out research continuously over a decade, Shuz Tung machinery has become one of a small numbers of turnkey equipment providing companies in Taiwan with abilities to integrate photoelectric manufacturing process. The team has been thoroughly developing on core technologies, such as optics, mechanism, electronic control, software and etc and come out with PCB bonding technology, COF bonding technology, Micrometer AOI system for 4K2K display. Shuz Tung has achieved the goal of enhancing localization and becomes the first and the only domestic supplier. The cutting-edge process equipment is capable to synchronizes with major global equipment manufacturers and has outstanding contribution to domestic display manufacturers.



## Business Philosophy

*Persistence! Hold customer's hands tight, idealize dreams and realize ideas. Ten years is not a short period of time, but is enough to comprehensively fulfill a project.*

Dick Lee, General Manager

## Key Features

The emerging 4K2K display has become the new standard in digital TV and cinema with feature of higher resolution. The LCM JI process, accurately connecting circuits between COF (Chip On Film), PCB (Printed Circuit Board) and the display panel, is the most critical technology.

With MOEA (Ministry of Economic Affairs, R.O.C.) supports and customer assistances in process validation, Shuz Tung finished and completed the whole LCM JI line in 10-year time. Wise Pioneer became the first and the only total solution provider in automatic LCM JI Line for 4K2K large size display. We commits to submit cutting-edge process equipment with comprehensive services to build superior competitiveness.

## Team Profile & Business Contact Information

Organization	Precision Electronic Division, Shuz Tung Machinery Industrial Co., Ltd.
Team Leader	Taylor Chuang, Chairman
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Fax	886-4-2556-1889
Website	www.wisepioneer.com.tw

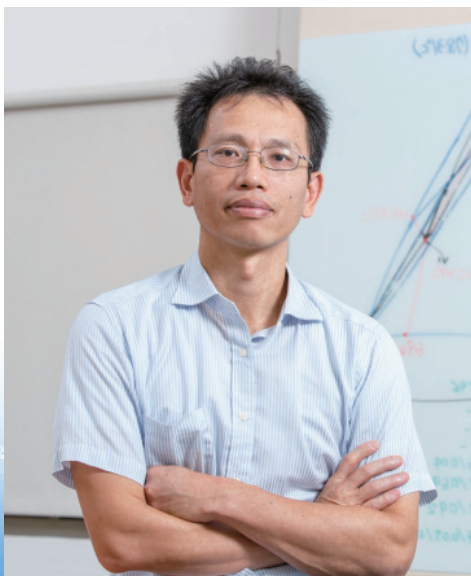
## Separation Process Design of Chemical Industry, Material and Chemical Research Laboratories, Industrial Technology Research Institute

### Innovative Program

Development and Applications of Fractionation Column Technology

### Reasons for Winning

This team develops fractionation column and process design technologies, as well as accurate and reliable packing/tray column efficiency prediction models. With these tools, the team can conduct efficiency diagnosis and debottleneck design of fractionation columns for various industries. The team also develops advanced distillation technologies and provides high efficiency separation and purification process design to save energy and to reduce waste water discharged and greenhouse gas emissions, which are vital for the improvement of chemical industry's images and enhance its competitiveness. Over the past 5 years, the team has helped Eternal Materials, Chi-Mei Corporation and 16 other chemical manufacturers to upgrade more than 20 separation processes. These improvements have annual production value of few billion NTD and 400 million NTD of profit. The achievement and contribution of this team is well recognized by the local chemical industry.



### Business Philosophy

*The value of this technology is the energy and material consumptions we saved for the sake of a better environment.*

Tsung-Jen Ho, Technical Manager

### Key Features

This team believes the value of employing "fractionation column technology with high efficiency" for local industries. Therefore, this team develops accurate and reliable packing/tray column efficiency prediction models to assist the industry for efficiency diagnosis and debottleneck of the existing distillation columns. At the same time, this team also develops several advanced distillation process and technology, such as "Heat Integrated Distillation Column" and "Divided-Wall Column". This team employs pilot tests and process integration design, results in energy saving of more than 15% and provides the industry with reliable and efficient separation and purification technology. This team has provided technology service to petrochemical, specialty chemical and pharmaceutical industries for the designing, improvement and application on the separation columns. Since 2011, this team has successfully employed to more than 20 projects with annual production value of few billion NTD and 400 million NTD of profit.

### Team Profile & Business Contact Information

<b>Organization</b>	Pilot Process and Applications of Chemical Engineering, Material and Chemical Research Laboratories, ITRI
<b>Team Leader</b>	Tsung-Jen Ho, Technical Manager
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<b>Website</b>	www.itri.org.tw





■ Innovative Services

## Engineering Division, CTCI Corporation

### Innovative Program

3D/4D In-Depth Application in EPC Lump Sum Projects

### Reasons for Winning

CTCI Corporation mainly undertook engineering design projects in its early days. Upon entering international EPC lump sum markets, our team uses 5 main axes as its innovative R&D strategy to develop new 3D/4D technology operations and methods. With digital plants being its core technology structure, it develops e-management, instant information inquiry, dynamic simulation and other systems. It uses corporate private clouds to integrate the procurement, construction, commissioning and handover of EPC lump sum projects to effectively enhance the work efficiency of the plants upon completion and improve maintenance quality. The team also promotes this leading technology overseas, helps to enhance the efficiency and the quality of plant design, and contributes to the professional image of industrial upgrade and Taiwan's fundamental EPC technologies.



### Business Philosophy

*Meeting customer expectations is our top priority, and we use innovative thinking to create new operational methods. Our mission is "to satisfy our customers with the optimized engineering services" and become "the most reliable global engineering service provider."*

Michael Yang, President

### Key Features

Through innovation, CTCI has developed 3D/4D operations and methods utilizing the new core technology of digital plants built for enterprise private cloud, thus, integrating the engineering design, procurement, construction, commissioning and handover work for EPC lump sum projects. At the same time, CTCI also cooperates with the academy and research institutes in the development and application of new, better and innovative 3D/4D technology. The details of which include:

- 3D design combined with whole plant planning applicable to the simulation of plant constructability operation and maintenance.
- Build up digital plant information used in the integration of plant information, space management, BIM (Building Information Modeling) and 3D laser scanning technology.
- 3D integration with analysis software is applied to piping stress, fluid transient, structural analysis and design.
- 4D integrated applications are used for the simulation of plant construction plans, rigging and modular fabrication, piping prefabrication and installation works.
- HSE (Health, Safety and Environment) applications are used for the simulation of fire, explosion, leakage, emergencies and firefighting system of the plant.

CTCI applies these new technological advances in local and global EPC lump sum projects to enhance project quality, reduce operating costs, ensure plant safety and shorten the construction period, with the goal to improve the competitiveness of enterprises, thereby increasing the customer value, and lead the domestic industry to upgrade its 3D/4D professional and technical capability.

### Team Profile & Business Contact Information

Organization	Engineering Division, CTCI Corporation		
Team Leader	Ho-Chuang Lee, Senior General Manager		
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Website	www.ctci.com.tw		



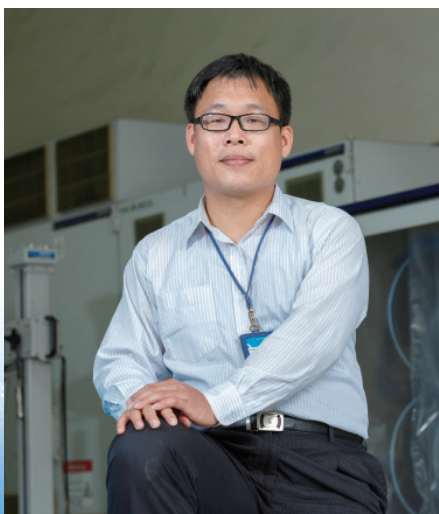
## Electric Vehicle Eco-System Promotion Team for Siluo Fruit & Vegetable Market, Mechanical and Systems Research Laboratories, Industrial Technology Research Institute

### Innovative Program

Promoting Green Transportation and Freshing Agricultural Product Market

### Reasons for Winning

This team puts creating innovative value for local industries into implementation. Using innovative integration model of technology and operation, it has brought about the social benefits of transforming traditional Siluo Fruit and Vegetable Markets into healthy and freshing agricultural product market, and has affected the health of over 2,500 operators. It also establishes the development of sustainable local electric trucks and brings about the technology upgrade of 5 part suppliers and 8 vehicle factories. By investing in the production and maintainence of Siluo's local electric truck, it created an industrial benefit of NT\$ 360 million for the rising Siluo electric vehicle industry. Its technology, connected with efficient buisness model, uses the concept of green transportation to solve local pollution problems, thus successfully established a local eco-system and fully presented its features on integration capability and innovative application & service. This is a successful example on the business model of academy-government-industry cooperation, and is worthy of recognition.



### Business Philosophy

*Dig deep to find local demands and ponder over solutions.*

Wen-Shu Chiang, Division Director

### Key Features

Siluo Fruit and Vegetable Market provides nearly one-third of Taiwan's fruits & vegetables. Local distributors use 800 diesel-engine pallet trucks to move fruits & vegetables in and out of the market, causing the aerosol droplet to be 2.5 times higher inside the market and the noise is higher than the regulation standard of 23.5 dB. This team combines common power system and safety regulation technologies with the innovative strategy of policy-induction business model and successfully integrated the electric truck business eco-system of Siluo. It initiated the comprehensive replacement of 800 diesel-engine pallet trucks to let the vision of freshing Siluo Fruits and Vegetables Market's healthy agriculture be expectable. It will be the model for promoting domestic and foreign niche vehicles and markets.

### Team Profile & Business Contact Information

<b>Organization</b>	Electric Vehicle Eco-System Promotion Team for Siluo Fruit & Vegetable Market, Mechanical and Systems Research Laboratories, ITRI
<b>Team Leader</b>	Wen-Shu Chiang, Division Director
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<b>Fax</b>	886-3-582-0452
<b>Website</b>	www.itri.org.tw



## ■ Living and Healthcare Technology

### Medical Device Team, Metal Industries Research & Development Centre

#### Innovative Program

The Screw Restoring Oral Health, Dental Implant

#### Reasons for Winning

This team combines its R&D energy from academy and medical circles to develop a complete manufacture process for dental implant systems, including 7 key technologies of innovative tooth implantation design, complex turn-milling machining, bio-surface reforming, tooth implant examination, operating instruments designing for implantation, pre-surgery planning software and ceramic dental prosthesis to bring up a domestic brand of implantation system and high-class implant navigation technology. Through technology transfer and industry services, it has successfully brought about 37 local manufacturers to invest NT\$ 1.9 billion to upgrade the industry of artificial tooth root and related medical appliances and derived 4 new entrepreneurial ventures on medical equipments. By promoting the establishment of Kaohsiung and southern Taiwan's bio-technology medical equipment industry settlements, it has brought about splendid results for the local industry's transformation and upgrade. Laying its eyes on the global market, it will continue to lead the industry to promote high quality Taiwanese medical equipments and march towards the enhancement on the production value of medical equipments and global popularity.



## Model of Local Industry Innovation Award



#### Business Philosophy

*Medical innovation is not just an ideal target, but is our motivation and enthusiasm. We continuously uphold the idea of "people-orientation" and dedicate ourselves on the innovative designing of medical equipments to allow the patients to have ideal using experiences and make the world healthier!*

Chih-Lung, Lin, Vice President

#### Key Features

This team actively coordinates with medical equipment industry development policies. Using high value dental equipment as its R&D axis, it combines the independent R&D energy of the academy and medical circle to develop a complete "manufacture process for dental implant systems". The Metal Industries Research & Development Centre not only is the provider of dental implant designing and manufacture process technology, but is also actively promoting independent brands and strategic alliance of Taiwan's artificial tooth root implantation. Using high value dental implants and digital dental equipment as its cores, it hopes to realize the goal of rooting in Taiwan and assisting manufacturers' innovative value-adding activities. It not only allows dental equipment to take root in Taiwan, but also allows them to shine in global arenas. Between 2009 and 2013, we have applied for 31 patent applications and 17 of them were certified. Also, we have conducted 31 cases of technology transfer and patent authorization (with a revenue of exceeding NT\$ 52 million), issued 96 conference papers and 23 periodical articles, brought about 9 new entrepreneurial ventures and new business divisions, established 7 strategic alliances on medical equipments, brought about 79 cases of medical equipment investments (with a total of NT\$ 1.9 billion) and allowed 303 people to be employed.

#### Team Profile & Business Contact Information

Organization	Medical Device Team, Metal Industries Research & Development Centre
Team Leader	Chih-Lung, Lin, Vice President
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Website	www.mirdc.org.tw





■ Cultural Innovative and Recreation

## LOHO Team, Springdex Enterprise Co., Ltd.

### Innovative Program

LOHO Sock Factory Brings About New Experience Economy

### Reasons for Winning

LOHO Team, Springdex Enterprise Co., Ltd. is the first to transform traditional sock industry into cultural & creative tourism and established the first Sock Tourist Factory in Taiwan that combines tourism and recreation. Using the product's manufacture process as its core, with additional experiencing creativities, it creates an innovative experience brand image from aspects like aesthetic, education, recreation, innovation and so on. With its original "LOHO" brand, it combines new products that were designed with local cultural features and seasonal promotion opportunities to create local industry features and input new energy into sunset industries. It leads the sock industry of Shetou, Changhua and promotes local economic development, attracting nearly 200,000 tourists annually and creates the value for industry innovation.



Model of Local Industry Innovation Award



### Business Philosophy

*There are not sunset industries. Only corporations in lack of innovation and creativity will become sunset industry.*

Hsin-Yu Liu, Chairman

### Key Features

Under the designing guideline of cultural & creative developing process, "LOHO Sock Factory brings about new experience economy" has developed the strategy of using core competitive values to promote the tourism development of Shetou's sock industry. With the development of experience economy, aesthetic designing allows traditional industry to produce cultural & creative designs that are both charming and have culturally deep, thus using these cultural values to make the tourists feel happy and entertained, and allowing local trips to be more attractive and pass down local culture substantially. It also brings about local tourism benefits and will initiate a new peak for Shetou's sock industry.

### Team Profile & Business Contact Information

Organization	LOHO Team, Springdex Enterprise Co., Ltd.
Team Leader	Hsin-Yu Liu, Chairman
Address	No.465, Sec. 1, Zhongshan Rd., Shetou Township, Changhua County 511, Taiwan (R.O.C.)
Tel	886-4-872-0522
Fax	886-4-871-1045
Website	www.loho.com.tw



# Individual Category

## Innovative Elite Award (General Individual Group)

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Industrial Technology Research Institute
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National Sun Yet-sen University

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Taiwan Semiconductor Manufacturing Company Limited

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Product RD Director, BenQ Materials Corporation
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Assistant Professor, Department of Electronics Engineering,  
National Chiao Tung University



## Yi-Lwun Ho

Director, National Taiwan University Hospital Telehealth Center

### Reasons for Winning



Mr. Yi-Lwun Ho is a professional cardiologist at National Taiwan University Hospital (NTUH) and is the major constructor of NTUH Telehealth Center. Besides his achievements in clinical, research and educational fields, he promoted the establishment of “Telehealth Center” in August 2009 with the assistance of an R&D Program and initiated digital telehealth care service. He incorporated subcontractors and facilities, attracted investments from major manufacturers, and brought about the combination of both the medical industry and electronic industry to conduct worldclass R&D in order to enhance the industrial development of telehealthcare and significantly reduce healthcare resource consumption.

He obtained the recognitions of “Outstanding Telecare Contribution Award” and “100 MVP Managers” among other awards.

### Biography

- Education**
- EMBA degree from Graduate Institute of Information Management, National Taiwan University College of Management (2010-2012)
  - Ph.D., Graduate Institute of Clinical Medicine, National Taiwan University College of Medicine (1998-2003)
  - M.D., National Taiwan University School of Medicine (1983-1990)
- Experience**
- Chief Executive Officer, Smart Health Technology Research and Development Center, National Taiwan University (2014-present)
  - Associate Professor, Department of Internal Medicine, National Taiwan University School (2010-present)
  - Director of Tele-Health Center of National Taiwan University Hospital (2009-present)
- Awards**
- National Innovation Award, Institute for Biotechnology and Medicine Industry, 2014
  - National Industry Innovation Award, Ministry of Economic Affairs, 2013
  - Symbol of National Quality Safety and Quality, Institute for Biotechnology and Medicine Industry, 2013
  - 100 MVP Manager, MANAGER today, 2013



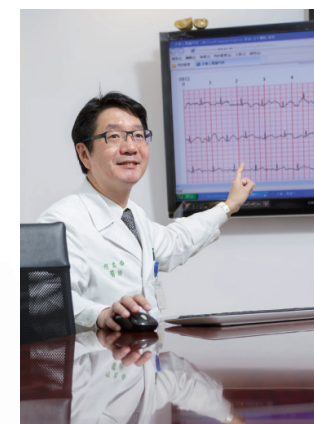
### Words of Wisdom

*Your attitude, not your aptitude, will determine your altitude.*

Yi-Lwun Ho, Director

### Acceptance Speech

I feel very thankful for the development of telecare by NTUH Smart Health Technology Research and Development Center and NTUH Telehealth Center, and appreciate the guidance my superiors gave me and the support from my family members. The trend of aging population and low fertility, along with the changes in development status of diseases, will increase the medical burden and caring pressure of individuals and the country as a whole. Furthermore, the demands to cope with chronic diseases and preventive health management will also be more important in the future. I hope that telehealth care can provide a solution to benefit society.



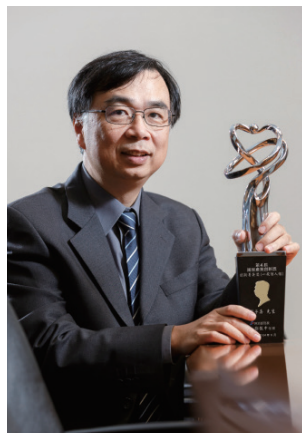


## ■ Green Energy Technology

### Arthur Chuang

Director, 300mm Fabs Facility Div.,  
Taiwan Semiconductor Manufacturing Company Limited

#### Reasons for Winning



Mr. Arthur Chuang is employed by TSMC and specializes in factory design and building construction. Through industry-academic cooperation, he focuses on the R&D of micro-pollution, micro-vibration, electromagnetic interference, and clean technology. He has researched and developed internationally recognized high semiconductor technologies, green constructions, smart database management technologies, the designing and management of smart factory-building technology, green construction and green building regulation. He built a 5D system to construct innovative factory facility with lifespan management model, which effectively shortens the construction time of high-tech factories, thus creating major revolutionary or re-organizing effect on the supply chain of high-tech factory facilities and new business opportunities in which it leads Intel and Samsung by a large scale. For the past few years, the team that he led has substantial significance to the industrial development of TSMC, and is the promoter on TSMC's development on green factories.

#### Biography

- Education**
  - Ph.D. in Engineering, National Taiwan University (2007-2012)
  - B.S., National Taiwan Institute of Technology (1985-1987)
- Experience**
  - Director, 300mm Fabs Facility Div., tsmc (2014-present)
  - Div. Head, New Fab Engineering Div., tsmc (2001-2014)
  - Manager, New Fab Engineering Div., tsmc (1997-2000)
- Awards**
  - Outstanding Alumni in Civil Engineering (NTU), 2014
  - Super MVP Manager of Taiwan (Manager today), 2014
  - Ten Outstanding Project Managers (ITPM), 2011
  - Innovation and Customer Partnership Awards (TSMC), 2006

## Innovative Elite Award (General Individual Group)



### Words of Wisdom

*Always do your best.*

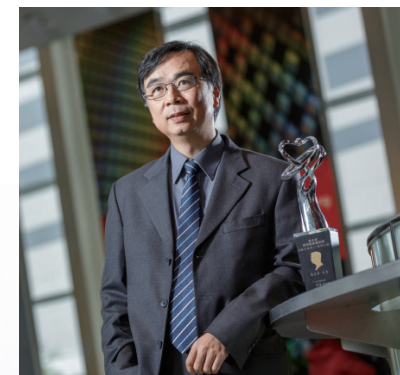
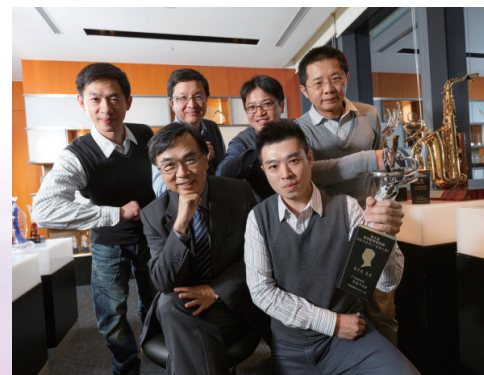
Arthur Chuang, Director

#### Acceptance Speech

I would like to thank the committee on recognizing the factory innovation of TSMC's construction on the new factory. Although factory affair is merely a supporting organization in the high-tech industry, it is the foundation that supports the whole manufacture process. The innovation and improvement of factory affairs is still a very important part in promoting Taiwan's green manufacturing.

The scope of factory affairs is very broad and factory affair innovation needs to take many aspects into consideration; for example: safety, environmental protection, advanced technologies, production efficiency and supply chain development. Therefore, factory management includes innovative management, innovative technologies and a development platform for innovative industries. Also, due to the professional versatility of factory affair personnel, besides fulfilling our own duties, we also wish to have the opportunity to use these professional technologies to serve society and fulfill our corporate social responsibilities.

I would like to share this honor with all the factory affair partners in TSMC, and hope this team could become the innovative initiator of high-tech factories and factory facility industry, allowing innovative factories and facilities to continue to support the development of Taiwan's high-tech industry.





## Wei-Chung Lo

Division Director, Advanced Package Technology Division of  
Industrial Technology Research Institute

### Reasons for Winning



Dr. Wei-chung Lo is employed by Electronics and Optoelectronics Research Laboratories, ITRI and has the professional experience of conducting advanced electronic packaging technology research for over 16 years. Besides leading the team to successfully develop wafer-level packaging technology, SiP, 3D IC TSV technology applied on high-level image sensors, he also leads the world in helping to create highly reliable electronic power-generated packaging modules for cars. In the past few years, related technologies have been transferred to domestic manufacturers, and have also helped domestic manufacturers to enhance negotiation bargains in their patent strategy. This has promoted investment and reduced offenses on international infringement of patent rights. It has transferred its technology under authorization to 10 manufacturers and received licensing fees of over NT\$ 160 million. With his industrial contributions, he has brought about the investment of over NT\$ 1 billion to the industry and successfully promoted an alliance between AMPA and Ad-STAC.

### Biography

#### Education

- Ph.D. in Chemistry, National Taiwan University (1993-1997)
- M.S., in Chemistry, National Taiwan University (1991-1993)

#### Experience

- Member of ECTC "Interconnect" Committee (US), IEEE CPMT, the Worldwide Most Remarkable Packaging Conference (2010-Present)
- Director/Project leader/Senior Engineer of Advanced Package Technology Division, ITRI (2009-present)
- MAPS Taiwan chapter committee (2009-present)

#### Awards

- Outstanding Paper Award of ICEP 2012/2013, 2013
- 3rd IMPACT and 10th EMAP/ MPACT, 2008



### Words of Wisdom

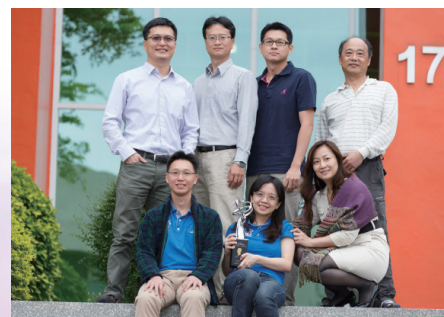
*Enthusiasm is contagious.  
Do something unique and create new impact.*

Wei-Chung Lo, Division Director

### Acceptance Speech

Conducting innovative R&D and dedicating myself to the world's leading industrial technology at ITRI is both very challenging and fulfilling. More specifically, our team focus on the 3D integration of semi-conductor chips, which allows various kinds of functional chips to be combined into a smart micro-system to satisfy all kinds of electronic applicative situations, such as artificial visual image system, wearable devices, in-car electronic appliances, IoT sensor systems. This research is full of possibilities and opportunities.

I would like to thank to the government support from Division of Industrial Technology, MOEA, my superiors in ITRI, my team, my friends in the industry and the big family of Advanced Package Technology Division for working so hard over the past 16 years in the horizontal integration of innovative packaging fields with semi-conductor chips like SiP and 3D IC. Combining the application of packaging patents and conduct technology innovation together with domestic industries, we obtained international cross-licensing, actively promoted our R&D technologies, and successfully presented the industrial benefits of technology R&D. Finally, I would like to thank my family for there relentless support and companionship!



## Paul Huang

Managing Director, LoFTechonology, Inc.

### Reasons for Winning



In the past 30 years, Dr. Paul Huang participated in the cutting edge research in the USA contributing to the development of specialized analog-to-digital converter technology for musical CD, of optical receiver technology needed for fiber-optic communication, of digital receiver technology useful for ADSL. Upon returning to Taiwan in 1994, he joined ITRI and led the development of Taiwan's early Ethernet chipsets. Recently, participating in MOEA DoIT's initiative, he led and developed the Juiker App and cloud platform to improve and enhance the competitiveness of Taiwan's telecom industry. Juiker was developed as the world's first federated social communication cloud platform

focused on security and privacy issues needed in a business environment. Juiker has become the leading disruptive B2G and B2C social communication App used by the government and industry in Taiwan and looking to expand internationally.

### Biography

- |                   |  |
|-------------------|--|
| <b>Education</b>  | <ul style="list-style-type: none"> <li>■ Ph.D. in Electrical Engineering, The University of Tokyo, Japan (1990-1994)</li> <li>■ M.S. and B.S., MIT, USA (1982-1987)</li> </ul>   |
| <b>Experience</b> | <ul style="list-style-type: none"> <li>■ CEO, LoFTechonology Inc. (2015-present)</li> <li>■ CTO, Information Group, Information and Communications Research Laboratories, ITRI (2013-2014)</li> <li>■ Deputy General Director, Technology Center for Service Industry (TCSI), ITRI. (2010-2013)</li> </ul> |
| <b>Awards</b>     | <ul style="list-style-type: none"> <li>■ ITRI Bronze Award for Excellence in Applied Research, 1996</li> <li>■ ITRI Bronze Award for Excellence in Industrial Contribution, 1997</li> <li>■ Outstanding MOEA project award</li> </ul>  |



### Words of Wisdom

*I want to put a ding in the universe.*

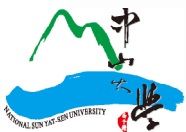
Paul Huang, Managing Director

### Acceptance Speech

I am very honored to receive the 4th National Industrial Innovation Award for contributing individuals. I truly appreciate the support by the public, the media, the government, the participating companies, and the judges. Only with such broad support, the Juiker project was able to succeed, gain broad attention and recognition from the society. I really appreciate everyone's support, especially those from the Division of Industrial Technology, MOEA. I share the honor of winning this award with MOEA DoIT, ITRI, Juiker team and all my friends!





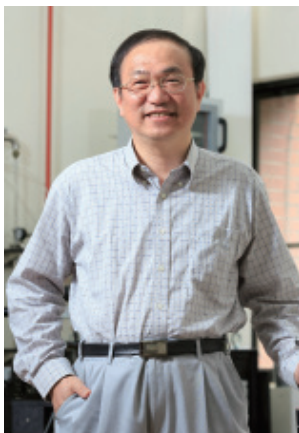


## Intelligent Technology

### Ting-Chang Chang

Distinguished Professor, Department of Physics, National Sun Yet-sen University

#### Reasons for Winning



Prof. Ting-chang Chang has dedicated himself in industry-academic cooperation for many years. His field of research is advanced semiconductor devices, and has successfully developed numerous advanced memory, display, and MOSFETs (devices). He was the program director of the cross-campus cross-discipline National Nano Technology Program, and cooperated closely with many leading domestic companies (TSMC, UMC, AU Optronics, Innolux, Acer) on various projects. Together they published more than 400 SCI research papers and more than 200 invention patents. The focus of his research is not only academically innovative, but also highly cooperative with the industries, which promotes technology transfers from laboratory into the industry. Through the understanding of physical mechanisms in various semiconductor devices, Prof. Chang researches and develops advanced devices and related intellectual properties that are needed by the industry, and transfers the research achievements via industry-academy projects. His contribution to Taiwan's industrial development is worthy of recognition.

#### Biography

- |                   |  |
|-------------------|--|
| <b>Education</b>  | <ul style="list-style-type: none"> <li>■ Ph.D., National Chiao Tung University (1989-1994)</li> <li>■ M.S., National Taiwan University (1987-1989)</li> </ul>  |
| <b>Experience</b> | <ul style="list-style-type: none"> <li>■ Distinguished Professor, National Sun Yet-Sen University (2011-present)</li> <li>■ Professor, National Sun Yet-Sen University (2002- present)</li> <li>■ Associate Professor, National Sun Yet-Sen University (1999-2002)</li> </ul>        |
| <b>Awards</b>     | <ul style="list-style-type: none"> <li>■ Outstanding Industry Award by National Sun Yat-sen University, 2014</li> <li>■ Nanotechnology Industry Elite of Ministry by Economics, 2012</li> <li>■ Outstanding Research Award by National Sun Yat-sen University, 2008, 2011</li> </ul> |

## Innovative Elite Award (General Individual Group)

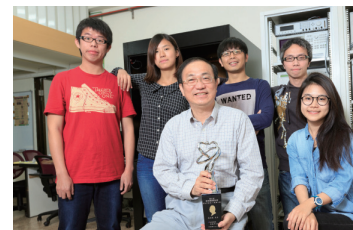


#### Words of Wisdom

*Everyone assumes their own role and fulfills their duty.*

Ting-Chang Chang, Distinguished Professor

#### Acceptance Speech



I have to thank the committee of "National Industrial Innovation Award" for their recognition. I believe through industry-academic cooperation projects, we can bring the resources of the industry into laboratories, and with the implementation and research ability of the laboratories, we can solve the problems that the industry desperately wants to be solved. From the problems that the industry wants to be solved, the physical mechanisms of the devices can be used to write useful research papers, and then those solutions can be made into patents and know-how. Through the implementation of industry-academy cooperation projects, we can cultivate outstanding R&D experts that the industry needs, and train post-graduate students that show no talent mismatches between the industry and academics. This creates a win-win situation for both the schools and manufacturers.



I have to thank the relentless support and contribution from my parents, wife, and children for allowing me to concentrate on my researches and teachings without any worries so I can receive this award. I have to thank the students and partners who worked hard with me in the laboratory both in the past and the present. I won't have this honor without their efforts. Finally, besides showing my gratitude to the brilliant environment of NSYSU and the MOST research funding support, I sincerely thank the cooperation partners from the industry.

Receiving this award is not only an honor, but is also a responsibility. I will continue to uphold the concept of knowledge-action integration, devote myself in training R&D experts, and solve R&D problems corporations are facing in order to assist Taiwan's industry growth, and contribute to the development of Taiwan's industry technology with all my efforts.



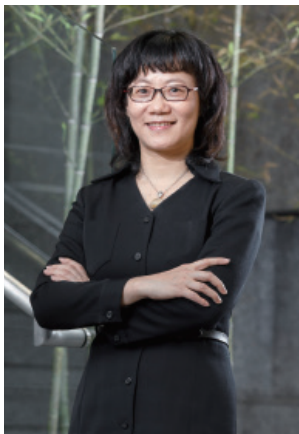


## ■ Intelligent Technology

### Ping-Wei Wang

Deputy Director, SRAM Department,  
Taiwan Semiconductor Manufacturing Company Limited

#### Reasons for Winning



Ms. Ping-wei Wang has served at TSMC for nearly 20 years and participated in the process technology R&D of 90nm, 40 nm, 20 nm and 10 nm. She uses innovative thinking to pursue the optimization of advanced process technology, including being the first to come up with “3C Innovated Platform” solution for the “innovative development and design & mass production introducing platforms of the processing technology for the latest generation” in the 20 nm era. This established the verification model of allowing one single chip to be mass produced between different factories, in which it reduced the production cost by 20% and created a win-win situation between customers. She also had a development breakthrough in 10 nm advanced process technology, chasing up the R&D progress of Intel, and increased its production capability by more than 50% when compared with 20 nm. Also, when 90/40 nm released the lithography optimization processing of one-dimensional component, she successfully shrunk the size of the chip by 28% and reduced the production cost tremendously by over 15%. It enhanced the international competitiveness of Taiwan’s advanced processing technology, and changed the chips component of Taiwan by several dozen generations.

#### Biography

- Education**
  - Ph.D. in E.E., NCTU (1991-1996)
  - M.S. National Taiwan University (1987-1989)
- Experience**
  - Deputy Director, R&D, TSMC (2005-2013)
  - Manager, R&D, Motorola, TSMC (2004-2005)
  - Manager, R&D, TSMC (2000-2004)
- Awards**
  - 40nm GPU Award from ATI
  - Outstanding R&D Contribution Award from Altera
  - SRAM R&D Contribution Award from LSI

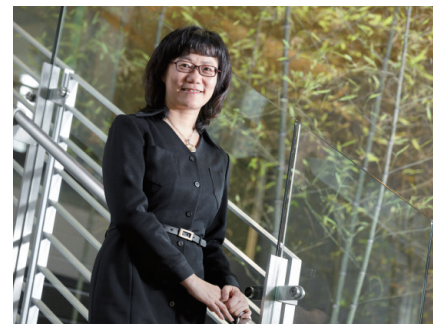


#### Words of Wisdom

*Stay zen and lay eyes on the summit. Be precise with your targets and not to be afraid of innovations.  
Be persistent with sense of high-tech and acuity. Integrate the team, break the limits and create new opportunities.*

Ping-Wei Wang, Deputy Director

#### Acceptance Speech



I’m very honored to receive this award representing TSMC. First of all, I have to thank the semi-conductor industry of Taiwan and the abundant resources the academy has invested, allowing TSMC to continuously improve, thus becoming the leader in OEMs and bring semi-conductor industry to the top of the world. I also have to thank the superiors of the R&D division of the company for giving us the best opportunities and trusts. I have to further thank the cooperation of the team, so we can break through barriers, provide the corporation with the most advanced technology and bring in the largest business opportunity in the market.



I have learned a lot in other categories such as chemical industry, material, semi-conductor processing and circuit designing, allowing me to step up and face challenges when facing technological innovation and come up with different methods. At the same time, I constantly attend many world class international conferences to acquire the latest knowledge and exchange technologies so I can go all lengths in my work.

If I can give the newcomers some advice, I wish they can choose the job they are most interested with, so they are willing to devote all their strength into it and courageously create new opportunities by combining elites from different fields. Believe in yourself, lay your eyes on the world, and make some new records. For female high-tech workers, I furtherly advice you to arrange family and work more carefully to create a win-win situation for both of them.

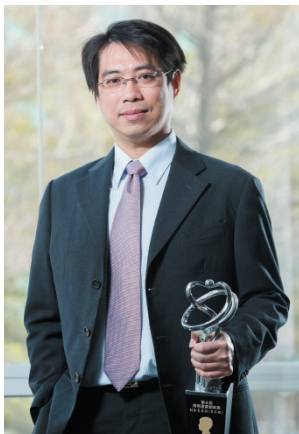


## Intelligent Technology

### Hsien-Wei Chen

Manager, InFO Integration Program,  
Taiwan Semiconductor Manufacturing Company Limited

#### Reasons for Winning



Mr. Hsien-wei Chen dedicates himself in the research of back-end process at TSMC, experienced the generation development from 0.13 $\mu$ m to 16 nm (6 generations), and is responsible for the advanced packaging technology development of semi-conductors. He had many breakthroughs on semi-conductor processes and advanced packaging technology, including the development of lead-free flip-chip packaging technology and the proposal of 3D theory of collision to enhance the precision of process designing model. He successfully created 28 nm metal gate electrode components, improved its processing defect-free rate without great increases in cost and has brought about an annual revenue of NT\$ 160 billion for the corporation. He led the TSMC 3D packaging team to build the world's first InFO packaging technology and has acquired 163 international patents (255 more patents under application). Besides consolidating 90% of market occupancy of TSMC in the 28 nm category, his R&D results have also brought in great foreign currency and surpluses for the corporation and for the country and are vital to the great boom of Taiwan's semi-conductor industry.

#### Biography

##### Education

- Ph.D. in Polymer, National Chiao Tung University (1999-2002)
- M.S. -> Ph.D, National Chiao Tung University (1998-1999)

##### Experience

- Manager (R&D), TSMC (2013-present)
- Section Manager (R&D), TSMC (2006-2013)
- Principle Engineer (R&D), TSMC (2003-2006)

##### Awards

- Outstanding Young Engineers from Chinese Institute of Engineers, 2014
- Second Golden Trade Secret Award from TSMC, 2014
- RD Innovation Award from TSMC, 2013
- The Most Business Impact Award from TSMC, 2012

## Innovative Elite Award (Youth Group)



#### Words of Wisdom

*Pursue your dreams and never be afraid to change. Be brave to reach for the stars; sky is the limit!*

Hsien-Wei Chen, Manager

#### Acceptance Speech



I'm very thankful to my superiors, the R&D team I've cooperated with, and the partners who gave me guidance along the way. You allowed me to lead the team to break through neckbottles and achieved proud accomplishments that leads the industry. If others say I can see further than other people can, I will say it is because I'm standing on your shoulders.



I have to thank TSMC for the abundant research resources. I'm proud of my corporation and enjoy the sense of accomplishment in giving back to the corporation. Finally, I have to thank my family members for always giving me the greatest encouragement and support when I'm under pressure.



## Ta-Hsin Chou

Division Director, Mechanical and Systems Research Laboratories,  
Industrial Technology Research Institute

### Reasons for Winning



Mr. Ta-hsin Chou is skilled in the development of innovative micro/nano process equipment technology and leads the electronic equipment industry to develop non-vacuum coating, non-photolithography processing, and other green processing equipments. He established Micro-fabrication Manufacture Technology Laboratory and helped to bring about the successful development of innovative products such as atmospheric pressure plasma deposition system and optical microstructure-based concentrator photovoltaic module. These products won the 2012 R&D 100 Awards and 2012 Wall Street Journal Technology Innovation Award, and brought about the establishment of 1 new company. He deepened

the gravure off-set printing technology and brought about energy-reduction by 30% in the electronic industry's manufacture process, saved 50% of the materials, and brought about R&D alliances and constructed the industry supply chain. With innovative green processing technology, he successfully enhanced the competitiveness of Taiwan's touch panel and PCB industry.

### Biography

- Education**
- Ph.D. in Engineering, Osaka University, Japan (-2013)
  - M.S., National Tsing Hua University (1999-2001)

- Experience**
- Division Director, ITRI. (2015-present)
  - Business Division Director, ITRI. (2012-2014)
  - Division Director, ITRI. (2010-2012)

- Awards**
- Technology Innovation Awards, 2012
  - R&D 100 Awards, 2012
  - Invited Young Researcher, ASPEN2011, 2011



**Words of Wisdom**  
*Act Locally, Think Globally*

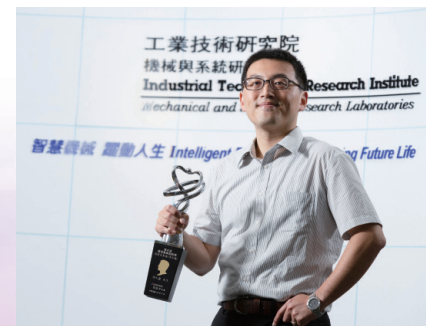
Ta-Hsin Chou, Division Director

### Acceptance Speech

I have to thank the committee and hosts of National Industrial Innovation Award for allowing me to win this honor. I have to thank my team members for overcoming many challenges with me. Our hard work has finally been recognized! I have to thank my beloved family members. Thank you for your encouragement and support, especially my dear wife. Because of you, I can devote myself to R&D without worry and make even higher goals.

I have served at Mechanical and Systems Laboratories, ITRI since my graduation. I have to thank this organization for giving me such solid training on mechanical design and processing technology, allowing me to take charge in conducting R&D projects in advanced manufacturing equipment technologies. Due to the experience and tempering there, I can take both innovation and practicality into consideration and continue to dedicate myself towards the concepts of "high efficiency, high quality, green and eco-friendly."

Equipments are an important foundation and the key to improving the development of the manufacturing industry. This award not only encourages me to pursue improvement and excellence with my R&D work, but also makes me more determined to contribute more innovative efforts to the manufacturing industry of Taiwan, and become a part of Taiwan's industrial sustainable development promotion.

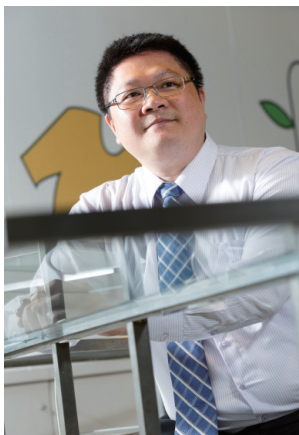




## Chien-lung Shen

Chief, Department of Products of Taiwan Textile Research Institute

### Reasons for Winning



Mr. Chien-lung Shen has concrete R&D accomplishments in the cross-border fields of smart electronics, textiles and materials. His innovative progress has effectively enhanced the technological energy, and created industrial values. Besides owning about 40 granted patents, he has the ability to integrate cross-industry supply chains, and develop various patent component combinations. By transferring technologies to manufacturers, he helped the industry to integrate rapid communication with the supply chain, developed a responsive and flexible team with the industry, and had concrete industry assistance and innovative benefits.

These actions have assisted manufacturers 24 times, with the R&D budget of NT\$ 52 million. He successfully leads domestic pioneer manufacturers to set foot on global technologies and patents, and provides them with industry transformation and innovative fundamentals. With the mechanism of alliances, he helps them to enter the global market of smart textiles.

### Biography

- Education**
- Ph.D. candidate, National Yang-Ming University (2005-present)
  - M.S., Feng Chia University (1998-2000)

- Experience**
- Chief, TTRI (2010-present)
  - Deputy chief, TTRI (2007-2009)
  - Senior researcher, TTRI (2009-present)
  - Associate researcher, TTRI (2001-2009)

- Awards**
- Red Dot Award: Product Design, 2014
  - Best of Golden Pin Design, Golden Pin Design Award, 2014
  - Gold Medal, National Invention and Creation Award, 2014
  - iF Product design award, 2011



### Words of Wisdom

*The greatest value of R&D is found only when you dig deep into the customer's demands.*

Chien-lung Shen, Chief

### Acceptance Speech

I'm very privileged to receive the honor of the National Industrial Innovation Award. First of all, I have to thank the recognition of MOEA and all members of the committee. I also have to thank all the teachers and superiors that has taught and guided me. I also have to thank my colleagues in the team and my partners in the industry. Consistent diligence and hard works from technology R&D to product development to commercialization resulted in today's accomplishment. Although this award is only to individuals, but I want to give this honor to all the members of the smart textile research team. I'm proud of the team. Finally, and most importantly, I have to thank my family. Due to your encouragement and support, I'm filled with energy and enthusiasm.

The smart textile research team of TTRI has accumulated the technologies, patents and product development experience for dozens of years. We will continue to uphold a bold, passionate and aggressive team atmosphere to provide the society with the best R&D progress and quality of service, to assist the transformation and improvement of domestic industries, and march towards the global market of smart textiles.





明基材料  
BenQ Materials Corp

■ Precision Manufacture

## Fung-Hsu Wu

Product RD Director, BenQ Materials Corporation

### Reasons for Winning



Dr. Fung-Hsu Wu serves in R&D Center of BenQ Materials Corporation, where not only working on building corporation's core technologies but its product applications. He developed large area nano-imprinting technologies in the past few years and has been successfully applied in 3D related products such as film patterned retarder, lenticular lens film, and window films. Now his is studying in the possibility of non-display fields such as higher efficiency solar cell system, smart privacy system, etc. Dr. Wu owned 40 US, 7 Japan, 2 Korea, 24 China and 67 Taiwan patents. He is recognized of innovation in new products development and thus creative add-on values for the industry.

### Biography

- Education**
- Ph.D., Institute of Electro-Optical Engineering, National Chiao Tung University (2000-2004)
  - M.S., Institute of Electro-Optical Engineering, National Chiao Tung University (1998-2000)
- Experience**
- Product RD Director, RD center, BenQ Materials Corp. (2013-present)
  - Senior Manager, Optical Film Business Unit, BenQ Materials Corp. (2009-2013)
  - Manager, Optical Storage Business Unit, Daxon Technology Inc. (2005-2009)
- Awards**
- Inventor of the Year, BenQ Materials, 2014
  - Inventor of the Year, BenQ Materials, 2013
  - Team of the Year (3D technology & product), BenQ Materials, 2012

Innovative Elite Award (Youth Group)



### Words of Wisdom

*Keep positive, optimistic, and awareness.*

Fung-Hsu Wu, Product RD Director

### Acceptance Speech

It is my great honor to receive the "National Industrial Innovation Award". I sincerely appreciate the recognition from the committee and the Ministry of Economic Affairs, MOEA. Also, I would like to express my gratitude to all of my colleagues who have contributed to this award. Further, acknowledge BenQ Materials Corporation's top managements, Chairman Eric KY Yu, Chairman Ted TT Huang, Chairman ZC Chen, President TY Lin, Vice President Oliver Liu and Ray Liu, Associate Vice President Robert Wu, who created an innovation friendly working environment for young engineer like me so that I can fully devote myself into product development and made good results. Finally, special thanks to my parents and wife Elma Hung for their kind understanding of my work.

"Innovation everywhere" is one of the convictions at BenQ Materials. The award shows we did well. Hope this prize inspires engineers like me and guides my children.





## Chyi-Ming Leu

Research Supervisor, Material and Chemical Research Laboratories,  
Industrial Technology Research Institute

### Reasons for Winning



Mr. Chyi-ming Leu is an expert in the development of polymer and hybrid materials. He started to conduct flexible display substrate projects in 2004 to develop a set of flexible substrate materials and manufacture process technology that can manufacture flexible displays, flexible touch panels, flexible solar panels, and flexible sensors that combines with present facilities and manufacture process. He has successfully introduced colorless polyimide/silica nano-hybrid materials with high inorganic content into the substrate of flexible OLED monitors, and has obtained recognition from the Wall Street Journal's Technology Innovation Awards, R&D 100 Awards, and gold medal from the National Invention and Creation Award. He successfully introduced the technologies to many domestic manufacturers, transferred them to more than 7 domestic manufacturers, and brought about the investment of over NT\$ 1 billion, including panel factories and upstream material manufacturers. He brought about a certain scale of industrial investment, and constructed the key technology for Taiwan's flexible displays and electronic industry.

### Biography

- |                   |   |
|-------------------|---|
| <b>Education</b>  | <ul style="list-style-type: none"> <li>■ Ph.D. in material science and engineering, National Chiao Tung University (1999-2003)</li> <li>■ M.S., National Chiao Tung University (1998-1999)</li> </ul>   |
| <b>Experience</b> | <ul style="list-style-type: none"> <li>■ Research Supervisor, ITRI/MCL. (2009-present)</li> <li>■ Researcher, ITRI/MCL. (2004-2009)</li> </ul>  |
| <b>Awards</b>     | <ul style="list-style-type: none"> <li>■ National Invention &amp; Creation Gold Award, 2012</li> <li>■ SID Display Component Silver Award, 2011</li> <li>■ WSJ Technology Innovation Gold Awards, 2010</li> <li>■ R&amp;D 100 Awards, 2010</li> </ul> |



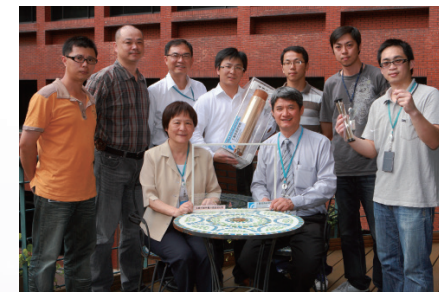
### Words of Wisdom

*For a researcher, I always think that a man worked hard could get more chance to success. Don't forget what you have tried in the past, you will re-use it in the future.*

Chyi-Ming Leu, Research Supervisor

### Acceptance Speech

I have to thank the committee for your recognition and encouragement. This honor gives me an impulse to continue to move forward, allowing me to continue to work hard in the material R&D work that requires both patience and persistence. It has been more than 10 years since I entered ITRI, and I have realized that it takes many phases of verification before a newly developed material is introduced into the market. You need to adjust, try consistently, and gain new insights from studying old materials to really conduct innovation and implementation. Therefore, I have to thank the trust and support from Material and Chemical Research Laboratories and the superiors of Display Center for giving me the sufficient energy to devote myself in this energy-consuming and time-consuming advanced research and obtain the progress I have today. I have to thank Deputy Director Tzong-Ming Lee who has worked with me along the way and patiently instructed me and every partner who worked hard for breakthroughs. With your accompany, the route of technology research and innovation is evident and exciting. Finally, I have to thank the support of my parents and my wife for allowing me to improve myself without worry while conducting technology research.





## Chi-Cheng Chuang

Deputy Director, Smart Network System Institute, Institute for Information Industry

### Reasons for Winning



Mr. Chi-cheng Chuang has led his team to develop the cloud smart green energy management platform of InSnergy, which assists corporations and families in conducting energy management and optimize services. It uses software platform combined with hardware that the Taiwanese industry is skilled with, to build a comprehensive solution with cloud services and software-hardware integration. This has assisted the industry to establish concrete progress and helped many technology transferred manufacturers to obtain big orders from the global market by exporting green energy solutions. Through the intermediate of InSnergy, a complete industrial chain is connected and

further brings up the development of next generation energy management industry. Presently, it has established more than 10 industrial strategy partners and assisted manufacturers in opening up a business opportunity of more than NT\$ 1 billion. He created competitiveness for the green energy industry, which is conducive to enlarging overseas markets.

### Biography

- Education**
  - Ph.D. in Engineering Science and Ocean Engineering, National Taiwan University (2006-2013)
  - M.S. in Electronic Engineering, Chung Yuan Christian University (2000-2002)
- Experience**
  - Deputy Director, Smart Network System Institute, Institute for Information Industry (2008-present)
  - Researcher, National Chung-Shan Institute of Science and Technology (2003-2007)
  - Co-founder & Technology Director, Blue Technology Co. (2000-2002)
- Awards**
  - Product “Smart Energy Management System”, ICT Sustainable Development Award by World Congress on Information Technology, 2014
  - Product “In-Snergy”, Silver Award by The 28th World Genius Convention and Education Expo 2014
  - Product “iFamily”, Silver Award by the Moscow International Salon of Inventions and Innovation Technologies “Archimedes” in Russia, 2014



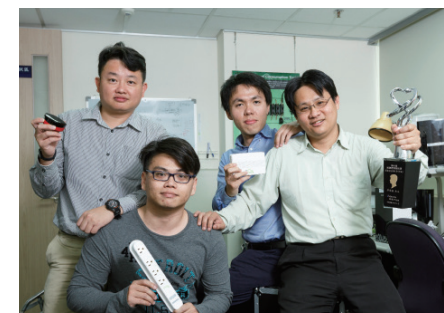
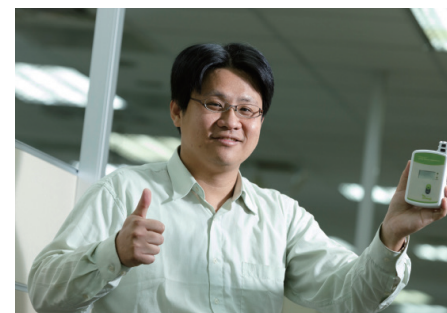
### Words of Wisdom

*Thanks for giving me the opportunity, encouragement, criticism, frustration people are all benefactor*

Chi-Cheng Chuang, Deputy Director

### Acceptance Speech

I would like to thank my parents for bringing me up! I thank my family for their support! I thank the team for supporting me! I thank the guidance from my superiors! Thank you and thank you!!





## Yu-Jiu Wang

Assistant Professor, Department of Electronics Engineering,  
National Chiao Tung University

### Reasons for Winning



Dr. Yu-Jiu Wang established an electronic laboratory that covers up to 500GHz in National Chiao Tung University, Taiwan. This lab can support the testing of most wireless communication systems and the measurement of most high-frequency transistors. Dr. Wang has assisted National Chung-Shan Institute of Science & Technology to build its first-generation missile radar chips based on local supply chain. This is the first missile radar chip successfully manufactured outside the United States. Dr. Wang developed a millimeter-wave energy harvesting chips which sensitivity are 10 times better than Intel's published in 2009. He invented a new automation process for designing analog/RF custom

IC, porting designs across process/EDA, verifying designs. Above inventions can be adapted and applied in 5G communication, IoT technologies and etc. He also holds an innovative corridor in Chiao Tung University for innovative entrepreneurs to exchange ideas and share experiences in Hsinchu.

### Biography

- Education**
  - Ph.D. in Electrical Engineering, California Institute of Technology, USA (2006-2009)
  - M.S. in Electrical Engineering, California Institute of Technology, USA (2004-2006)
- Experience**
  - Assistant Professor, National Chiao Tung University, 2009-2015
- Awards**
  - Silver Medals, International Physics Olympiads, 1996, 1997
  - First Prize, National Collegiate Entrepreneurship Contest, 1999

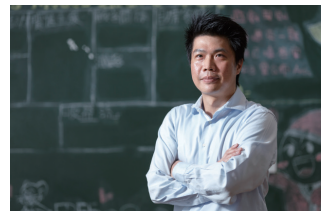


### Words of Wisdom

*From those to whom much is given, much is expected.*

Yu-Jiu Wang, Assistant Professor

### Acceptance Speech



I will like to thank my research partners: Prof. Ta-shun Chu from National Tsing Hua University and Prof. Borching Su from National Taiwan University. I also thank all members from NCTU-RFVLSI Laboratory and from Prof. Chu and Prof. Su's labs; in particular, Chin-Yun Chu, Yu-Cheng Chang, Shao-ting Tseng, Wei-zhong Ting, Chien-Wei Tseng, Xi-

Xuan Huang, Jing-Zhi Gao, Yan-Shou Chen, and Xin-Huei Chiu.



I thank my Ph.D. advisor Dr. Hajimiri for giving me valuable education, stimulating me to think flexibly and comprehensively, and enhancing my professional ethics. I thank my undergraduate research advisor, Prof. Huei Wang, who brought me to the field of IC design and implementation. I also thank my International Physics Olympiad advisor

Prof. Ming-Ray Lin for teaching me how to think like a scientist.

I thank all my colleagues in the Department of Electronics Engineering, NCTU, especially Prof. Jieh-Tsorng Wu, Prof. Chung-Yu Wu, Prof. Ming-Dou Ker, Prof. Wei-Zen Chen and Prof. Chien-Nan Guo, Prof. Yang-Tung Huang and Prof. Sau-Gee Chen, Prof. Yi Chang and Professor Chen-Yi Li for their many supports. And all my assistants including Chia-Len Liang, Li-Han Chang, Guan-Zhong Ting, Chao-Han Tsai, I-No Liao, Chatrpol Pakasiri, Wen-Yu Liao, Ray-Mei Wang, and Sarah Liu.

Finally, I am thankful of my family's selfless devotions and supports.





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