

5th NATIONAL INDUSTRIAL INNOVATION AWARD

An introduction of 2017 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 Awards (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 Awards 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

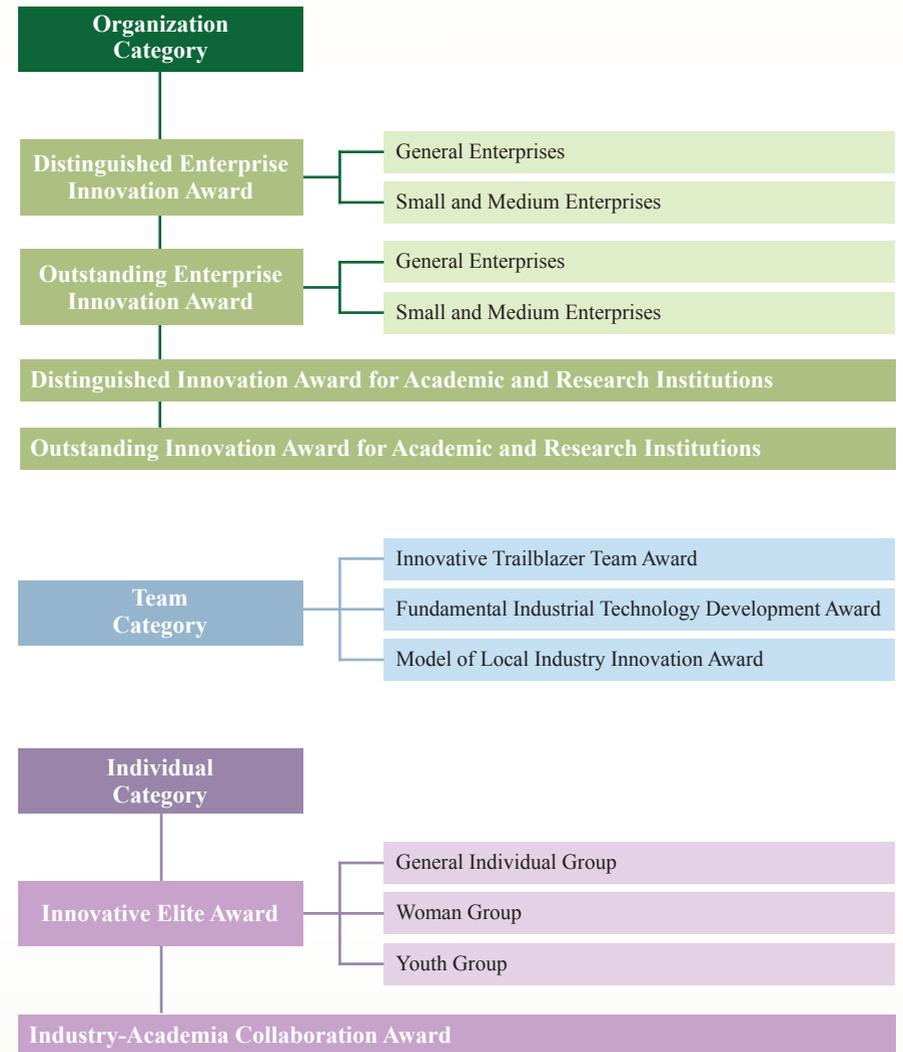
break away from the traditional technology-based thinking and move forward to develop service innovation. Through service innovation, we will upgrade the value of manufacture to the added-value of service, and the consolidated creativity will bring the industries in Taiwan into the age of blue sea.

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	Industries
Precision Manufacture	This category includes the metal, electrical and mechanical, transportation vehicles, automotive electrical components, automatic control, and precision instruments industries.
Intelligent Technology	This category includes the semiconductor, IC design, display panel, computer and peripherals, communications and networking, mobile phone and telecommunication equipments, electronic components, and software industries.
Living and Healthcare Technology	This category includes the medical and biotechnology, healthcare, materials, chemical, food, textile and fiber, glass and ceramics industries.
Green Energy Technology	This category includes the solar power , wind power, optoelectronics and optics, oil and natural gas, environmental engineering, green energy building materials and construction, and other energy-based industries.
Innovative Services	This category includes the cloud computing services, information services, testing services, logistics and storage, transportation services, technology services, human resources, trade and retail, engineering consulting services, and financial insurance industries.
Cultural Innovative and Recreation	This category includes the cultural and creative , digital content and publishing, restaurant and tourism industry, intellectual properties management, and education industries.



ORGANIZATION CATEGORY

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Distinguished Innovation Award for Academic and Research Institutions

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Outstanding Innovation Award for Academic and Research Institutions

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Industrial Technology Research Institute 32
- Medical Device Innovation Center, NCKU 34
- Cybersecurity Technology Institute,
Institute for Information Industry 36





Reasons for Winning

Building a world-class enterprise of measurement instrumentation with its own brand

Founded in 1984, Chroma ATE Inc. is a world leading supplier of precision Test and Measurement Instruments, Automated Test Systems, Intelligent Manufacturing Systems and Turnkey Test and Automation Solutions marketed globally under the brand name "Chroma." With long-term effort in technologies, products, processes, marketing, and continuous innovation, Chroma envisions developing global leading products as a world-class enterprise. Every year, Chroma allocates a significant amount of resources in R&D to ensure its leading technologies and integration capabilities in optics, mechanics, electronics, thermal control and software. As of today, Chroma has obtained over 100 core technologies to lead the industry with innovation. The company is also committed to developing green technologies and automated applications for Industry 4.0 providing customers high value-added solutions to satisfy their demands, and win their trust.

Business Philosophy

Developing world-class products and becoming a world-class enterprise with innovative technologies and value creation to gain customer's trust.

- Leo Huang, Chairman



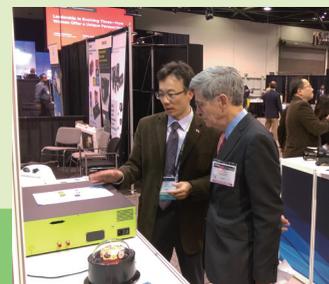
Key Features

Precision, reliability and uniqueness are the key features of Chroma's products. Precision is to improve the quality of customers' products resulting in enhancing their competitiveness. Reliability is to gain customers trust via good faith and reputation, while uniqueness provides high value-added products using differentiated technologies to solve customers problems and avoids price competition.

Chroma has 43 product lines and 458 models that encompass leading technologies and integration capabilities in optics, mechanics, electronics, thermal control and software. In recent years, Chroma has been putting effort into the test solutions for green industries, including electric vehicles, li-ion batteries, solar energy and LED/lighting, also dedicating in smart factory applications by providing Turnkey Test and Automation Solutions for Industry 4.0 migration.

Company Profile & Business Contact Information

Founded	November, 1984
Core Business	Test & Measurement Instruments, Automated Test Systems, Intelligent Manufacturing Systems, Turnkey Test & Automation Solutions
Chairman of the board	Leo Huang
Address	66 Huaya 1st Road, Guishan, Taoyuan 33383, Taiwan (R.O.C.)
Tel	886-3-327-9999
Fax	886-3-327-8898
Website	www.chromaate.com



Reasons for Winning

Developing Materials and Electro-Optic Technologies Indigenously Exploring Global Markets for Dual-use Products Energetically

Materials & Electro-Optic Research Division (MEORD) of National Chung-Shan Institute of Science and Technology (NCSIST) holds a mission to develop materials and electro-optic technologies for military use. Over the years, MEORD has laid a solid foundation for basic research and accumulated abundant experience in critical parts manufacturing and system assembly. Besides, it has put technologies into commercialization, applying various materials and electro-optic products to different purposes. As for the innovation strategy, MEORD focuses mainly on defense products and then transfers its mature technologies to civilian industries to assist the Green Energy Technology, Biotech & Pharmaceutical, Smart Machinery, National Defense, New Materials and Circular Economy as well to comply with government policies.

Business Philosophy

With a vision of "innovating materials, pioneering electro-optics" in mind, MEORD endeavors to achieve the goals of "innovative technology miniaturization, research outcome industrialization, and product globalization" to promote national defense and civilian industries, and to enhance the industry value and national competitiveness.

- Yi-Cheng Cheng, Director



Key Features

The Panoramic Vehicular Imaging System (PaVIS) is a 360-degree panoramic view monitoring system incorporating panoramic cameras and EO/IR payloads. PaVIS helps to monitor nearby surroundings and search remote targets that the commander can guide the gunner to the right direction for shooting. Combined with head-mounted displays, the panoramic cameras offer surrounding views with in-situ video, interchangeable among visible, IR and fused images to perform surveillance functions. All the information will be processed via the display control system and transferred by wireless images to all soldiers with head-mounted display goggles. By using indigenous technologies of visible/IR camera, head-mounted display and car-using around view monitoring system, PaVIS has been developed to be a new generation motion sensor system that could be applied to both military vehicles and civilian cars with safety consideration, such as cash trucks. This system could assist the driver and security personnel to monitor the surroundings and thereby respond to unpredictable situations with efficiency.

Company Profile & Business Contact Information

Founded	August, 1983
Core Business	<ul style="list-style-type: none"> The development, manufacture, and sales of materials and electro-optics products for defense, dual-use technologies applications. Domestic and international cooperation in materials and electro-optics capabilities, technology transfer, information exchange, and industrial promotion services.
Chairman of the board	Feng, Shih Kuan, Minister of the MND
Address	481, Chia-An Sec. Chung-Cheng Rd. Lungtan, Taoyuan 325, Taiwan (R.O.C.)
Tel	886-3-471-2201#357000
Fax	886-3-471-1024
Website	www.ncsist.org.tw



Reasons for Winning

World's Leading Multimedia Software Company Thriving due to Audiovisual Superiority

CyberLink Corp. is the world's leading multimedia software company. It has obtained 181 patents and has been honored with the prestigious PC Magazine "Editors' Choice Award" 13 times. Its PowerDVD software is the world's first 4K Ultra-HD Blu-ray movie player with over 300 million units shipped around the globe. Moreover, PowerDirector is the first consumer-level video editing software to support 360-degree VR footage. Recently, CyberLink has dedicated itself to developing software for business applications, bringing a better online meeting and remote presentation experiences to users.

Business Philosophy

Our Spirit of Innovation and a Dedication to Developing Leading Audiovisual Products Continues to Drive the Global Market Forward.

- Jau Huang, CEO



Key Features

PowerDirector supports complete end-to-end 360-degree video editing. It's remarkably easy to use throughout the entire editing process. The unique "View Designer" function enables you to use 360-degree video footage in conventional 2D video projects. It's like you've filmed a scene with multiple cameras from multiple angles, allowing you to capture dynamic field of view to tell your stories. With the world's fastest 64-bit rendering engine, PowerDirector can optimize the hardware of your computer and thus enhance editing efficiency. Additionally, PowerDirector supports CPU and GPU acceleration technologies from Intel, AMD and NVIDIA. It also utilizes OpenCL and CyberLink's proprietary SVRT technology to offer smoother previewing and significantly faster production. PowerDirector is the most powerful video editing software of its kind, able to compete with much more expensive professional-grade products.

Company Profile & Business Contact Information

Founded	August, 1996
Core Business	A broad portfolio of multimedia applications solutions, including media playback, video/photo editing, and business application software as broadcasting.
Chairman of the board	Jau Huang
Address	15Fl., No.100, Minchuan RD., Xindian District, New Taipei City, Taiwan (R.O.C.)
Tel	886-2-8667-1298
Fax	886-2-8667-1300
Website	www.cyberlink.com



Topkey Corporation

Organization Category
Outstanding Enterprise Innovation Award (General Enterprises)



Reasons for Winning

Obtain Worldwide Favors with Cutting-Edge Technologies for Composite Materials

Topkey Corporation is the world leading supplier of high value composite materials products, committing to provide the world's cutting-edge technologies for composite application & solutions. The company focuses primarily on the production and development of carbon fiber composite products, including racquets and bicycle frames in the early stage and seats and components of aircrafts, helmets and medical parts nowadays. Topkey holds critical processing technologies, process patents and polymer performance, which have been turned into three core valued technologies-composite matrix formulation, impregnation technology and value enhancement. With its core technologies, Topkey is able to provide the most appropriate materials and innovated manufacturing solutions that satisfy its clients' needs.

Business Philosophy

With our management philosophy-integrity, diligence, innovation, and gratitude, Topkey devotes to meet World's customers satisfaction, employee contentment, share-holder interests, sustainable management, and societal give-back.

- Walter Shen, Chairman



Key Features

Topkey Group centers on composite materials. All of the six business fields it has engaged in take the lead in the world in terms of scale and technologies, which allows Topkey to make 5 No.1 achievements. From racquets, bicycles, helmets, medical parts to aviation, from low level to high level, Topkey has the most diversified product lines through its diversification strategy. Topkey Corporation valued its clients by offering high standards of service and products to the sporting industry as seriously as the ones in the aviation industry.

Carbon fiber composite materials feature high specific strength and high specific stiffness, with a 50% weight saving over aluminum and higher strength over steel. Besides, carbon fiber composite materials tend not to deform and have great heat resistance and conductivity. For the purpose of environmental protection, energy saving and safety, the material will be applied to the manufacturing of aircrafts, automobiles and HSR trains.

In recent years, Topkey has embarked on the R&D of thermoplastic materials. Through compression molding, thermoplastic materials can be turned into various 2D and 2.5D products. The material is recyclable, reusable, solid and impact-resistant. In the future, thermoplastic materials can be extensively used in aircrafts, automobiles and electronic communication products.

Company Profile & Business Contact Information

Founded	July, 1980
Core Business	<ul style="list-style-type: none"> • Business Scopes • Sport / Recreation products • Aviation / Medical products • Carbon fiber / Glass fiber composite products
Chairman of the board	Walter Shen
Address	NO.18, 20th Road, Industrial Park Taichung 40850, Taiwan (R.O.C.)
Tel	886-4-2359-1229
Fax	886-4-2359-3778
Website	www.topkey.com.tw



Reasons for Winning

Optimized Information Systems and Services, the Solution to the Challenges in the Digitalized World

With well-developed software engineering, project management and an excellent command of information technology, Galaxy Software Services Corp. (GSS) provides systems and services that meet its clients' needs and realizes digitalized processes and innovative applications. After years of effort, GSS's digitalized systems and services are available to enterprises in any size. By utilizing its cloud services, companies can simplify their product launch processes, employee training, customer services and reduce maintenance costs, properly responding to challenges in the digitalized world.

Business Philosophy

1. We hope to grow with our employees and clients and give back to society.
2. We strive to solve problems and enhance convenience in life and work by providing information technology and services.
3. We make profits with honesty and integrity, insisting that profits come from work that is beneficial to society.

- Perry Chang, Chairman



Key Features

The Vitals Enterprise Social Platform (Vitals ESP) provides a platform for retention and inter-unit exchange of constantly-changing information in the cloud structure. Apart from Enterprise 2.0, it consists mainly of three major segments, namely Content, Social and Mobility.

(I) Content: The content segment mainly accumulates, manages and shares organization knowledge and experience. It also uses highly-effective full-text search functions, which raises the re-use rate of knowledge-based content. In addition to uploading content by users, they can also collect information through e-mails, file servers and the Internet.

(II) Social: Its innovative social segment provides powerful sharing and an exchange mechanism with others in the platform, which is likely to enhance the use rate. Besides, users can use the tag function to recommend related documents, or utilize the subscription mechanism to receive instant notifications of any update. The correctness, security and innovation of document exchanges can therefore be boosted.

(III) Mobility: In the mobility segment, users can use its constantly updated mobile device-based apps to browse information they are interested in anytime. They can also upload information in real time and even take notes and save drafts without Internet connection.

Company Profile & Business Contact Information

Founded	March, 1987
Core Business	Software Design Services
Chairman of the board	Perry Chang
Address	5F., No.9, Dehui St., Zhongshan Dist., Taipei City 104, Taiwan (R.O.C.)
Tel	886-2-2586-7890
Fax	886-2-2586-8787
Website	www.gss.com.tw



TAIPEI 101

Taipei Financial Center Corp.

Organization Category

Outstanding Enterprise Innovation Award (General Enterprises)



Reasons for Winning

The World's Tallest Green Building that Promotes Taipei to the Whole World

"Changing a city, thriving with land, and becoming the world's tallest green building" is the objective of TAIPEI 101, an iconic green skyscraper that attracts worldwide attention. TAIPEI 101, combined with technology and humanities, holds the value of environmental sustainability. With a brand-new service pattern, TAIPEI 101 provides tenants and customers with innovative green services, creating a positive image around the world. Owing to its high visibility, great influence and high standard, TAIPEI 101 has successfully started a green trend, making an effort in environmental protection.

Key Features

TAIPEI 101 breaks the stereotype that camping can only be held outdoors. In the summer of 2016, TAIPEI 101 held the first camping activity at its observatory. All of the 800 tickets sold out just in seconds. The camping was aimed at families with a series of activities such as astronomical observation (stars, the moon and sunrise), parent-child interaction (setting up and packing up the tent and bedding), a guided tour for children (an introduction of the Taipei landscape and stories about TAIPEI 101) and a quiz contest. The event created a special experience for both parents and children to sleep over at such a high place and learn together with fun. In expectation of an increasing number of international tourists, TAIPEI 101 has launched an electronic tax refund service, with the assistance of Chunghwa Telecom, since May of 2016 to provide better shopping experiences for them. Meanwhile, TAIPEI 101 has also issued TAIPEI 101 Tourist Cards exclusively for international visitors. Once they apply the card online with their mobile phones, they can start accumulating spending by showing the 2D barcodes on their mobile phones to the clerks. The barcodes can also be used when foreign visitors apply tax refund. The measures greatly reduce the use of paper, which is in line with TAIPEI 101's goal to protect the earth.

Business Philosophy

With green operation, intelligent management and splendid innovation, TAIPEI 101 strives to bring international exposure for Taiwan. We also care the society, stand close to our land and cultivate top talents to build a platform promoting public welfare.

- Dr. Joseph Chou, Chairman



Company Profile & Business Contact Information

Founded	October, 1997
Core Business	Office and Shopping mall leasing, Observatory operation
Chairman of the board	Dr. Joseph Chou
Address	59F, 7 Xin Yi Rd Sec. 5, Taipei, 110, Taiwan (R.O.C.)
Tel	886-2-8101-7777
Fax	886-2-8101-6789
Website	www.taipei101.taipei



WINSTAR Display Co., Ltd.

Organization Category

Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



Reasons for Winning

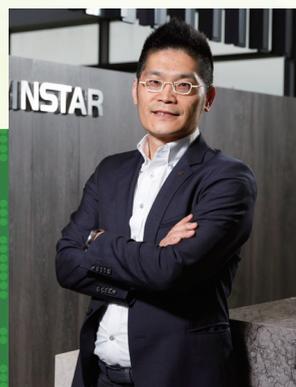
Put Effort into the Field of OLED and Become a Leading Company Globally

Established in 1998, Winstar Display Co. Ltd focuses on the manufacturing and R&D of the consumer and industrial LCD, TFT-LCD and OLED displays. The company is also a prestigious supplier of LCD, OLED and TFT-LCD modules. It has dedicated itself to enhancing the lifetime and reliability of their products and successfully expanded the market of industrial displays. In recent years, consumer applications, transparent OLED, flexible OLED and OLED lighting have been proactively developed, making Winstar a leader technically. With high quality and competitive prices, Winstar has received worldwide recognition.

Business Philosophy

With our core values, comply with the code of ethics, conservation of good moral character and observe the law. Our company mission is being a sustainable corporation to the society and environment by using technology to make contributions to humanity and fulfill the corporate social responsibility. Our vision is to be the world's first industrial display brand.

- Venson Liao, Chairman



Key Features

Winstar Display Co., Ltd. is one of the leading Industrial Display Manufacturing Company. Winstar provides liquid crystal display (LCD) and organic light emitting diode display (OLED). Solutions including TN/STN/FSTN/FSC-LCM, TFT-LCM, monochrome OLED display modules, embedded systems, and customized design. Winstar's OLED panels are 100% made in Taiwan through fully automated production line and quality control facilities.

Winstar can manufacture OLED products in 7 different emitting colors. The mechanical structure of display modules includes chip on board (COB), chip on glass (COG) and Tape Automated Bonded (TAB). All of Winstar's OLED products feature high brightness, high contrast, unlimited viewing angle, long lifetime and lower power consumption. The products are under the industry's most stringent passive matrix detection and two burning test control. Customers can upgrade applications from conventional LCD to OLED displays easily. It's the best choice for various industrial and consumer devices. As a result, Winstar has successfully entered global markets and made remarkable sales records.

Company Profile & Business Contact Information

Founded	October, 1998
Core Business	TN/STN/FSTN/FSC-LCM, TFT-LCM, OLED display modules, Embedded Systems, and customized solutions
Chairman of the board	Venson Liao
Address	5F, No.31, Keya Rd., Daya Dist., Taichung City 428, Taiwan (R.O.C)
Tel	886-4-2568-9987
Fax	886-4-2568-7763
Website	www.winstar.com.tw



Reasons for Winning

Build a digital medical imaging solution for the benefit of an aging society

Medimaging Integrated Solution Inc. (MiiS) was established in 2010. The company utilizes a profound optical mechanical and electrical technology foundation, combined with optical, institutional, electronic and software integrated system development, and the integration of academic research and medical clinical results, to provide medical digital imaging solutions. With the uneven distribution of medical resources, our aging society, and the gradual increase in the trend of chronic diseases, further enhancement has been implemented in the professionalization and convenience of medical services to meet market demand for products and provide solutions that benefit all of the community. MiiS's own brand "Horus scope" is being marketed to the global market.

Business Philosophy

MiiS for digital medical imaging of the optical core technology, will uphold the spirit of innovation and service, and continue the development of fine medical materials, which will contribute to the health of all mankind.

- Stefan Cheng, President



Key Features

Horus Scope Digital Eye-Fundus Camera DEC 200 adopts a new optical design and innovative integration of mechanical and electronic system. The traditional fundus camera, which is huge and very expensive, leads to eye screening being difficult to implement. DEC 200 is the world's first and currently the only handheld digital eye-fundus camera with 5 Mega-pixel resolution and 45-degree field of view. It's also equipped with auto-focus/auto-shooting function, built-in 7 fixation points that allows the user to check different fundus area. In addition, the user-friendly operation and lightweight design (only 500g) is easy for physicians to carry forward rounds. With digital images and data communication capabilities, DEC 200 can catch up with the global development trends of telehealth. DEC 200 has 3.5" full-color touch screen can display videos and still images in real-time. They can also be displayed on PC/TV monitor simultaneously, allowing better physician-patient communication. DEC 200 has been adopted by medical institutions, especially in the screening of diabetic retinopathy rate significantly, including disease prevention screening for macular degeneration and glaucoma. The shared fuselage product design, can also replace the lens to perform different functions of the inspection, and the provincial resources of green design concept.

Company Profile & Business Contact Information

Founded	August, 2010
Core Business	Hand-held diagnostic scopes (including fundus, ears, skin, mouth, etc.) and Telemedicine Solution.
Chairman of the board	Stefan Cheng
Address	7F, No.9, Park Ave. II, Hsinchu Science Park, Hsinchu 30075, Taiwan (R.O.C.)
Tel	886-3-579-8860
Fax	886-3-579-8011
Website	www.miiS.com.tw



TQ Optoelectronics Co., Ltd.

Organization Category

Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



Reasons for Winning

Create a new model of optoelectronics design to promote Taiwan's lighting industry to move forward

TQ Optoelectronics Co., Ltd. was established in 2014, providing advanced optoelectronic R&D design and product manufacturing services, focusing on automotive as well as special lighting applications. TQ adopted "Design House" business models, and integrated the local supply chain to drive the development of the lighting industry in Taiwan. The company has supported many customers to launch world-leading products such as the world's first laser light source endoscopic module and flagship series of ultra-low power LED FOG+DRL lamps. Due to their innovative know-how and expertise in Laser and LED technology, TQ Optoelectronics was awarded with "R&D 100" and the "Taiwan Outstanding Photonics Product Award".

Key Features

TQ Optoelectronics' excellent product design and complete integration of technology provide the world-leading LED/Laser products and designs used in the medical lighting and automotive lighting industry.

We not only sell light but its value. TQ Optoelectronics is a worldwide pioneer in using laser light source in medical surgery endoscopic applications, and also provides a variety of innovative and highly integrated products selling around the world in the field of medical and automotive lighting.

Business Philosophy

Be sincere and righteous in heart, and do not take shortcuts. Observe worldwide trends, and make friends with those who have the same ideal and value as we have.

Be persistent to the creation of values, as we believe that heaven will reward the diligent.

- Alex Wang, Chairman



Company Profile & Business Contact Information

Founded	May, 2014
Core Business	LED Automotive Lighting, LED/Laser Medical Lighting, Special Lighting and R&D Service
Chairman of the board	Alex Wang
Address	4F., No.78, Gongye 3rd Rd., Tainan, Taiwan (R.O.C.)
Tel	886-6-384-3665
Fax	886-6-384-3775
Website	www.tqtechnology.com



Reasons for Winning

Focus on the Chain Circulation and the Shopping Center to Drive the Mobile Information Services

WishMobile was founded in 2014, the business project for the development of mobile applications, mobile service product development, such as Qsire platform, and TStore Android shop end M marketing equipment, etc. focuses on the chain of circulation industry, department store shopping center and other applications. WishMobile utilizes the membership service, marketing tools, data analysis, and three additional modules to promote the mobilizations of information services, including MOS Burger, Eslite, Watson, Shin Kong Mitsukoshi, Farglory, and CityLink, including domestic and foreign industry to provide a new type of mobile application model, and establish independent and active marketing channels.

Key Features

"O2O Smart Retail Service" is for the branding strategy of O2O (Online to Offline/Offline to Online), the development of the mobilization of App application programs, providing the convenient services of mobile memberships, shopping, making restaurant reservations, and booking tickets, to create the excellent O2O experiences. Major customers include international companies (McDonald's, Watson, Carrefour) and Taiwan enterprises (Eslite Bookstore, MOS Burger) and so on.

The "Qsire Customized Product Platform" allows users to design their own personalized products through the Qsire App. Qsire is committed to utilizing a more simplified method to allow users to participate in the design process. In early 2016, Qsire even launched the best new app on the Apple App Store!

Business Philosophy

Looking forward to the scientific and technological realization of a mobile life!

We want to use a more simplified method to reduce the threshold of accessing services, by using a more intuitive method to improve the efficiency of the use of services. Let science and technology do more for you, by making life more convenient and free.

- William Hsu, CEO



Company Profile & Business Contact Information

Founded	June, 2014
Core Business	1.O2O Intelligence Retail Service 2.Qsire Custom Product Platform
Chairman of the board	William Hsu
Address	Rm. 1, 4F., No.45, Sec. 1, Minquan E. Rd., Zhongshan Dist., Taipei City 104, Taiwan (R.O.C.)
Tel	886-2-2591-6895
Fax	886-2-2585-0056
Website	http://www.wishmobile.com



WaWoo Communications Corp.



Organization Category
Outstanding Enterprise Innovation Award (Small and Medium Enterprises)



Reasons for Winning

Starting from the core value of the TV series to exert the diversified value of the original IP

Wawoo Communications was established in 1995. The company's TV series is the core development of the original IP, to exert the brand value, the development of multiple value distribution chain, and IP as the core value, lengthening the cultural industry life and efficiency, to create a pan-entertainment innovative profit model. Wawoo Communications created Taiwan's first fusion of criminal investigation and scientific video IP "Crime Scene Investigation Center/i Hero". From the beginning of the development of the TV drama extending to mobile phone game APP, original CSIC clothing brand, cultural and creative products, and the world mystery theme park, extending the TV drama distribution to developing energetic intellectual properties sharing the synergy, maximize the value of the brand.

Key Features

Wawoo Communications created Taiwan's first fusion of criminal investigation and scientific video IP "Crime Scene Investigation Center/i Hero". It's the first media communication company that created TV drama using US standard budget in production.

A breakthrough in creative marketing and business plan which form alliance in various industries for win-win relationship and sustainable business model.

Strive to be the industry leader:

- 1.First Taiwanese drama to be included in Netflix.
- 2.National, International award and accolades for past projects—"Beyond Beauty: Taiwan From Above", Documentary of various Taiwanese entertainers for Discovery Channel.
- 3.Six Golden Bell nominations for CSIC Season 1.

Business Philosophy

Based on cinematic and television broadcasting as a locomotive, driving cultural innovation, e-commerce, mobile phone APP to cross boundaries in promoting business opportunities in Taiwan.

- Ku Chiao, CEO



Company Profile & Business Contact Information

Founded	July, 1995
Core Business	Scope of Business—Television Program Production/Cinema Production/Television Commercial Broadcasting Production/Agent and Commercial Design Services
Chairman of the board	Ku Chiao
Address	No.213, Wolong St., Taipei City 10674, Taiwan (R.O.C.)
Tel	886-2-2735-5959
Fax	886-2-2737-3506
Website	www.wawoo.tw



Reasons for Winning

Combining Intelligence, Compact and Green Energy, Create a Foresight of Mechanism

The Mechanical and Mechatronics Systems Research Laboratories (MMSL) of Industrial Technology Research Institute (ITRI) is a national research institute with critical ability of intellectual property, precision equipment and verification platform in mechanical field. With the three core technology: intelligent, micro precision, and green, the laboratory dedicates to intelligent robots & robotic systems, manufacturing technologies with advanced green energy equipment, intelligent electromechanical systems, and intelligent vehicle technology as the direction to promote technology research and development and industrial promotion. Also, the labortary keeps creating diverse techniques and products through international industrial and academic cooperation to construct differentiated and optimal outstanding and innovative technology.

Business Philosophy

A vital role in Taiwan's economic growth, an innovation-driven one to lead industrial development and serve as a pioneer for industries to create economic value.

- Jwu-Sheng Hu,
 Vice President and General Director



Key Features

Four open innovation system platform of Mechanical and Mechatronics Systems Research Laboratories:

- 1.Intelligent Robots & Robotic Systems:**
 Developing intelligent robot critical modules and systems, including core intelligent production units, compliant industry robot, automatic delivery system and robot controller.
- 2.Manufacturing Technologies with Advanced Green Energy Equipment:**
 Construct automation system design and application verification platform to assist 3C precision assembly industry to enhance production system flexibility and reduce the turnaround time.
- 3.Intelligent Electromechanical Systems:**
 Design open add value control system for the factory of new era, including critical modules of intelligent process added-value software, multi-axis precision control platform, and integrated full digital integrated server.
- 4.Intelligent Vehicle Technology:**
 Adopt IPM algorithm architecture to integrate homogeneous or heterogeneous sensor data, to effectively detect distance and direction. The architecture also integrates GIS information to display the surrounding of the car, and enhance the reliability of the image recognition processing device.

Company Profile & Business Contact Information

Founded	March, 1969
Core Business	<ul style="list-style-type: none"> • Intelligent Robots & Robotic Systems • Manufacturing Technologies with Advanced Green Energy Equipment • Intelligent Electromechanical Systems • Intelligent Vehicle Technology
Chairman of the board	Jonq-Min Liu
Address	No.195, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan (R.O.C.)
Tel	886-3-591-7760
Fax	886-3-582-0235
Website	www.itri.org.tw



Medical Device Innovation Center, NCKU



Organization Category

Outstanding Innovation Award for Academic and Research Institutions



Reasons for Winning

The Cross-Disciplinary Integration of Medical Technology - Build up High-Quality Healthcare Service

Medical Device Innovation Center (MDIC) is an organization that combines fundamental medical care, in-house caring technology, health promotion, telemedicine, industry- research platform and business operation, and expects to build a regional health management service system.

MDIC has been providing opportunities for industry, academic and research institutes to work tightly and closely. Starting from a domestic association-Cheng Kung Medical Device Alliance (CKMDA), to an international organization-the Global Academia-Industry Alliance (GAIA), MDIC has put a lot of efforts to forge a cross-disciplinary and cross-border alliance to strengthen the collaboration between overseas enterprises.

Key Features

Medical Device Innovation Center-Engine of Medical Devices Industry is the only institute which was established for "Aim For The Top University Project" of Ministry of Education.

MDIC devotes to help booming the industry environment for startup companies in the global medical devices industry. The five development directions of the center are teaching, service, research, growth and brand. Under the leadership of Dr. Michael M. C. Lai and the Director, Dr. Fong-Chin Su, MDIC has been working on integrating our research team, partner enterprises, venture capital firms and NCKU medical center to identify the unmet clinical needs, accordingly invent several value-oriented medical devices and set up international academic-industry platform, GAIA. With our experience and strengths in the fields of teaching, services, research and creation, we believe that our continuous efforts in the medical device industry will eventually bring a great deal of contribution to Taiwan economy in the long run.

Business Philosophy

MDIC encourages and provides assistance to startup entrepreneurs. By helping them to link with the local business and constructing a global academy-industry platform for them to connect with foreign countries.

- Fong-Chin Su, RSH CEO



Company Profile & Business Contact Information

Founded	2011
Core Business	Education and research
Chairman of the board	Huey-Jen Su
Address	No.1, University Road, Tainan City 701, Taiwan (R.O.C.)
Tel	886-6-236-3157
Fax	886-6-236-4527
Website	web.ncku.edu.tw/bin/home.php



Cybersecurity Technology Institute,
Institute for Information Industry

Organization Category

Outstanding Innovation Award for Academic and Research Institutions



Reasons for Winning

Enhance Cyber Security Capability for Taiwan, Lead Local Vendor Expedition to Global Market

Cybersecurity Technology Institute is the research and development department under Institute for Information Industry. They have been continuously devoting to the cyber security related issue, policy and planning, the research and development in security technology has been the major focus along with the professional security services for Taiwan. The organization has been not only in charge of managing the "National Center for Cyber Security Technology" to prevent government sectors from cyber security disasters for 15 years, but also successfully developed various of critical cyber security technologies including security monitoring and operation platform. They have promoted many critical cyber security technologies and achievement of transferring them to local vendor to apply in fields including e-commerce, financial securities, mobile communication to enhance the level of industrial information security.

Key Features

This product is responding to provide multi-level protection for preventing ICT (Information and Communication Technology) cyber attack, including cyber threat intelligence, cyber threat detection, and security analysis and prediction. It not only holds the information of millions of zombie computer worldwide, but also cooperates with more than 42 CERT centers (Computer Emergency Response Team) in exchange threat intelligence. It provides an automatic depth security analysis platform, which can detect the malicious behavior files and documents. By advanced technologies like security sandbox and virtual machine time accelerator, it can efficiently and accurately detect threats from network. For APT threat within enterprise, the product makes use of massive volume of log data training and heterogeneous intelligent analysis technology to detect new and unknown latent threats in early stages. By real-time data collection, efficient detection and massive volume information security analysis, this product provides comprehensive cyber security solution and help industry to innovate security service value, and enhance the cyber security capability for government, business and national defense.

Business Philosophy

To deepen Research and Development in key cyber security technology, enhance the information security capability of the country.

- Dr. Tsungnan Lin,
Vice President and Director General



Company Profile & Business Contact Information

Founded	July, 1979
Core Business	Policy research and planning, technology R&D, technology and professional services in cyber security related area.
Chairman of the board	Dr. Jonq-Min Liu
Address	10F., No. 106, Sec. 2, Heping E. Rd., Taipei 106, Taiwan (R.O.C.)
Tel	886-2-6600-9061
Fax	886-2-6607-2026
Website	www.iii.org.tw

TEAM CATEGORY

Innovative Trailblazer Team Award

- The Team of Development Platform for Thin Film Green Fabrication Equipments
**Mechanical and Mechatronics Systems Research Laboratories,
Industrial Technology Research Institute** 40
- Integrated Fan-Out (InFO) Package Program
Taiwan Semiconductor Manufacturing Company Limited 42
- Team of Bioenergy Technology Innovation and Value-Added Application
**Green Energy and Environment Research Laboratories,
Industrial Technology Research Institute** 44
- Intelligent energy network management service team
Smart System Institute, Institute for Information Industry 46
- Food Safety and Traceability Platform R&D Team
Institute for Information Industry 48
- Huashan-Spot cinema operation team
Taiwan Film and Cultural Association. 50

Fundamental Industrial Technology Development Award

- The Anti-Cancer League-Effective Drug Carrier and Microsphere Fabrications
Aim at Cancer Treatment
Metal Industries Research & Development Centre 52
- Fluid Machinery Cross-Technology Team
**Green Energy and Environment Research Laboratories,
Industrial Technology Research Institute** 54
- Research Team of High-value Functional Materials
**Department of chemical Engineering ,National Cheng Kung
University, National Cheng Kung University Yen Tjing-Ling
Industrial Technology Research and Development Center** 56

Model of Local Industry Innovation Award

- i-Tribe Wireless Broadband Team, Smart Network System Institute
Institute for Information Industry 58
- Koche Fashion Co. Ltd
Koche Fashion Co. Ltd 60




**The Team of Development
 Platform for Thin Film Green
 Fabrication Equipments**

The Technologies and Applications
 of Slot Die Coating and Atmospheric
 Pressure Plasma Equipments



Reasons for Winning

During manufacturing process of optoelectronic products, the thin film processing is a crucial element. However, the traditional thin film processing requires the use of vacuum coating process, where energy efficiency and processing costs are restricted. In light of the needs of future green-related processing, our team is striving to enhance the technical capabilities of slot die coating process equipment and atmospheric pressure plasma equipment. We promote the domestic equipments into the market and achieve the equipment technologies with international level. Moreover, the technology helps to upgrade industrial technology and provides technical links for production and research institutions. The use of self-developed equipment assist the process verification as well as the development of innovative industrial processes and applications, which then increase product values and international competitiveness

Key Features

Thin film processing is an important manufacturing process in optoelectronics production. Traditionally, vacuum coating processing has been used in the high-precision thin film processing, but the energy efficiency and processing are not cost effective. In order to fulfill the future of green-related processing needs, ITRI Mechanical and Mechatronics Systems Research Laboratories established world leading green film process platform. The platform comprises two core technologies : slot die coating technology and atmospheric pressure plasma technology. Because of the capability in process equipment design, ITRI provides technical connection between production and research institutions, and process validation services using self-developed equipment to assist the innovative industrial development and product applications to increase product value and international competitiveness.

Business Philosophy

Mastering the innovative R&D capability of the processing equipment is the key element for manufacturing industry to pursue sustainable development.

- Ta-Hsin Chou, Division Director



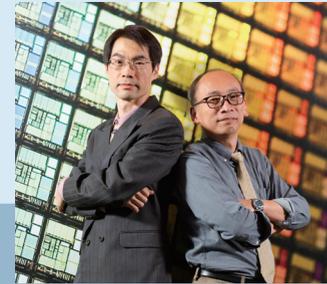
Company Profile & Business Contact Information

Organization	The Team of Development Platform for Thin Film Green Fabrication Equipments/Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute
Team Leader	Ta-Hsin Chou, Division Director
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Fax	886-3-591-6791
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Integrated Fan-Out (InFO) Package Program

Development of Integrated Fan-Out (InFO) Package Technology in Commercial Mobile Device and Internet of Things (IoT) Application



Reasons for Winning

Through TSMC's innovative core technology, this project developed an integrated fan-out package (InFO) technology platform. This technology possesses a thin package size, eliminating the need for inputting a Flip Chip Substrate, wafer three-dimensional or horizontal stacking, and saving PCB. When Moore's Law growth slows down, this platform will become the core technology of system-level packaging, providing customers with complete process solutions, and possesses a "light slim", "high performance" and "low cost" advantage, that is expected to continue its growth momentum in Taiwan's semiconductor industry. TSMC will be the best one-stop service choice for consumer mobile devices and internet of things (IoT) users, through the advantages of its technological innovation, advanced production and customer partnership.

Key Features

The Integrated Fan-Out Technology (InFO) developed by this project is equipped with circular manufacturing processing. The Fan-Out Wafer Level Package (FO-WLP), launched by TSMC, is an integrated fan-out (InFO) technology developed by this project, which is also titled as "More-than-Moore" system-level packaging technology. In the next few years, when Moore's Law growth slows down, this platform will become the core technology of system-level packaging, providing customers with complete processing solutions, and possesses a "light slim", "high performance" and "low cost" advantage, that is expected to continue its growth momentum in Taiwan's semiconductor industry.

Business Philosophy

Research and Development will encounter many bottlenecks, but we must hold an attitude: "Open a road when you meet a mountain; build a bridge when you see a river." Pragmatically face each problem, and grasp every opportunity.

- Chi-Hsi Wu, Director & C.S. Liu, Director



Company Profile & Business Contact Information

Organization	Integrated Fan-Out (InFO) Package Program/Taiwan Semiconductor Manufacturing Company Limited
Team Leader	Chi-Hsi Wu, Director & C.S. Liu, Director
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Fax	886-3-563-6688
Website	www.tsmc.com/chinese/default.htm



**Team of Bioenergy
Technology Innovation and
Value-Added Application**

Innovative Carbon Cycle Economy
- "Industry Application Model of
Microalgae Carbon Fixation and High
Yield of Astaxanthin"



Reasons for Winning

Team from Green Energy and Environment Research Laboratories, ITRI, they successfully completed the R&D including the oil microalgae screening, cultivation, genetic engineering, photobioreactor developing, microalgae harvesting and algae oil extraction. After then, they developed the economic process, evaluated life cycle and integrated microalgae upstream and downstream system. In the meantime, they connected industry, academia, and other R&D resources to organize the "Open Innovation System R&D Platform" to construct commercialization and industrialization model of microalgae biomass energy. The team also collaborated with the Taiwan Cement Corporation to develop, utilize (including product value-added) and verify the microalgae carbon sequestration. Hope to accelerate the industrialization of microalgae carbon energy.

The project supported by Bureau of Energy, Ministry of Economic Affairs.

Key Features

"Industry Application Model of Microalgae Carbon Fixation and High Yield of Astaxanthin" is a carbon cycle economy model. It provides the total solution to industry to achieve carbon reduction and green energy creation simultaneously.

The development of biological agents to enhance microbial growth, yield and content of astaxanthin. It can be applied to different kinds of photosynthetic microalgae, and multiplied the microalgal biomass, astaxanthin production and carbon fixation efficiency. The cost of production for *Haematococcus pluvialis* (3.5% astaxanthin) can less than 3,000 NTD/kg, which is a world leading result. Integrate the microalgae supply chain to layout patents, 11 cases and 24 files. In 2012-2016, the research projects from industries amounted to 34.9 million NTD. ITRI Constructed of CCUS Open Innovation Platform to lead top enterprises into demonstration and cooperation research to promote the high value of existing industries. Taiwan Cement Corporation invested more than 200 million NTD to construct an astaxanthin production model plant in Hoping, Hualien. An industrial microalgae energy application model, which integrate microalgae carbon sequestration and the use of energy and high-priced products. *Haematococcus pluvialis* farming output will reach 400 million NTD/hectare. CCUS carbon cycle economy demonstrated and validated by Taiwan Cement Corporation demonstration. This model can be applied to cement, petrochemical, power generation, iron and steel and other high-CO₂ emissions traditional industries, to integrate carbon reduction, energy self-production, and high value-added application in the future.

Business Philosophy

*ITRI and Taiwan Cement Co-create the Green
Energy Circular Economic Opportunity,
turns Carbon into "Gold" by High Value
Microalgae.*

- Wen-Chang Lu, Manager



Company Profile & Business Contact Information

Organization	Team of Bioenergy Technology Innovation and Value-Added Application/ Green Energy and Environment Research Laboratories, Industrial Technology Research Institute
Team Leader	Wen-Chang Lu, Manager
Address	Bldg. 64, 195, Sec. 4, Chung Hsing Rd., Chutung, Hsinchu 31040, Taiwan (R.O.C)
Tel	886-3-582-0030
Fax	886-3-591-8584
Website	gelweb.itri.org.tw



Intelligent energy network management service team

Intelligent energy network management service

Reasons for Winning

Having "Intelligent Energy Network Management Service" as the main R&D focus and "Intelligent IoT" as the key application, the team leverages wireless sensor networks, sensing information fusion, data analysis techniques, and utilizes cross-domain knowledge, such as energy and building techniques, to integrate multi-domain core technologies, including advanced wireless communication, sensor networks, smart energy, internet of vehicle, smart wearable and digital convergence techniques etc., so as to develop different novel services and applications. The team provides system-centric solutions and offers the SaaS model to the industry for whom to reduce its cost when importing the green-energy management platform. They effectively coach our industry to seize international market opportunities and improve the product value as well as the market impact.

Business Philosophy

We are a national exclusive team which focuses on integrating intelligent energy service, IoT, sensing and communication system, cross-domain knowledge, such as energy and architectural research, to develop advanced technologies and to provide application services.

- Intelligent energy network management service team

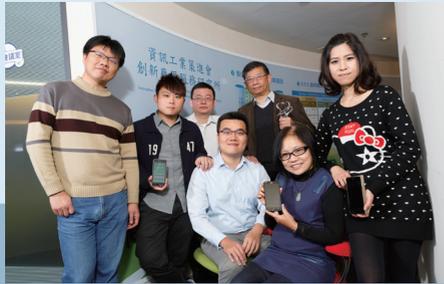


Key Features

Institute for Information Industry - Smart System Institute, toward the global trend and opportunities of Internet of Energy, has been conducting its research and development effort to the field of "Energy Networking Management Services." Via the variety of intelligent networking, data collection and analysis techniques, they now are able to provide various energy networking applications and management services. Their main service, the readily available cloud-based energy management platform, brings numerous benefits, such as improving energy efficiency, energy management, and reducing the power usage etc, to their customers. While leading the industry towards the newly emerging energy networking domain, they also help to enhance the industrial value, and further to approach the international markets.

Company Profile & Business Contact Information

Organization	Intelligent energy network management service team/Smart System Institute, Institute for Information Industry
Team Leader	Ming-Whei Feng, Vice President and Director General
Address	7F, No.133, Sec.4, Minsheng E.Rd., Taipei City, Taiwan (R.O.C)
Tel	886-2-6607-3888
Fax	886-2-6607-3507
Website	www.iii.org.tw/About/Department.aspx?dp_sqno=1&fm_sqno=36



Food Safety and Traceability Platform R&D Team

Food Safety and Traceability Platform



Reasons for Winning

The team utilizes ICT methods (by using Open Source resources and newly emerging cloud computing technology) to build B2B HUB tracking platform for consumers to enable better food protection lines and help food industry and food buyers using ICT methods to expose food sources, ingredients and other processing information, while tracking the food supply chain. The team has developed a sound food safety SOP and a notification mechanism that can quickly identify the data on the impact of food safety incidents. The team has exerted a lot of effort to effectively eliminate the worries of food risks and rebuild the confidence of the people. The traceability system can add value to the image of food products, enhance the export capacity of Taiwan food industry, and rebuild our reputation as the kingdom of food.

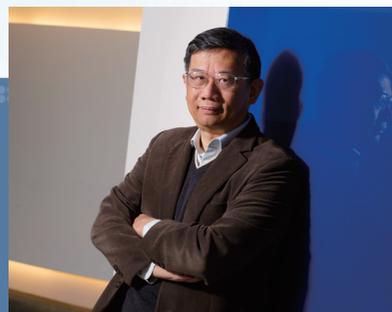
Key Features

The R&D team of Food Safety and Traceability Platform from Institute for Information Industry (III) utilized ICT methods (by using Open Source resources and emerging cloud computing technology) to develop the food safety and traceability technology. The platform assists the food industry in optimizing its supply chain to extract product processing information, to improve the traceability mechanism for consumers, and to enable better food protection lines. By implementing this tracking technology, it enables to eliminate the risks about the food safety, and rebuild the confidence of the people. The traceability system can add value to the image of food products, enhance the export capacity of Taiwan food industry, and rebuild our reputation as the kingdom of food.

Business Philosophy

The utilization of cloud computing and open source technology to develop a variety of innovative application services are our continuous goals which we will spare no effort to work on.

- Lee-Chung Chen, Director



Company Profile & Business Contact Information

Organization	Food Safety and Traceability Platform R&D Team/Institute for Information Industry
Team Leader	Lee-Chung Chen, Director
Address	8F, No.133, Sec.4, Minsheng E. Rd., Taipei City 10574, Taiwan (R.O.C.)
Tel	886-2-2713-5709
Fax	886-2-6607-2000
Website	www.iii.org.tw



Taiwan Film & Culture Association

Team Category

Innovative Trailblazer Team Award



Huashan Spot Cinema Management Team

Huashan Spot Cinema



Reasons for Winning

Under the concept of revitalizing historic buildings, Huashan Spot Cinema, the first national artistic theater in Taiwan, was built. Huashan Spot Cinema Management Team promotes cinema as an art form. In order to nurture local young talents, Huashan Spot Cinema Management Team provides a distinctive platform for exchanges of ideas among creative professionals. Huashan Spot Cinema Management Team has sufficient experience of organizing events and had collaborated with many film festivals in Taiwan or abroad. By strengthening the development of the local film industry, Huashan Spot Cinema Management Team hopes to achieve a higher level of integration between filmmakers and distributors. Huashan Spot Cinema Management Team has found a balance between promoting cinema as an art form and staying ahead of the increasing competition in film industry. Most important of all, Huashan Spot Cinema had already become an internationally renowned art hall.

Key Features

Huashan Spot Cinema is located at M6 in the Huashan Creative Park. This building was a packaging factory and later transformed into a movie theater in 1996. Huashan Spot Cinema is now managed by the “Taiwan Film & Culture Association” under the supervision of director Hou Hsiao-Hsien and its team. Huashan Spot Cinema opened officially in November 2012. It is the first national artistic theater in Taiwan. The whole cinema building kept its old structure but some creative elements were added as an expression of innovation.

Huashan Spot Cinema consists of two professional cinema auditoriums, visual gallery, multi-function exhibition hall, Spot Café Lumière and Spot Designs store. Huashan Spot Cinema Management Team organizes occasionally themed film festivals, each space also has cinema related lectures and exhibition activities. Huashan Spot Cinema Management Team hopes to create a comfortable projecting environment and provides the audience a different viewing experience. Huashan Spot Cinema Management Team invites you to come to experience this movie theater and find yourself a sense of belonging.

Business Philosophy

Success in innovation depends on how much you want it to happen!

- Po-Jen Chen, Chief Executive Officer



Company Profile & Business Contact Information

Organization	Huashan Spot Cinema Management Team / Taiwan Film and Culture Association
Team Leader	Po-Jen Chen, Chief Executive Officer
Address	No.1, Sec. 1, Bade Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)
Tel	886-2-2394-0622
Fax	886-2-2394-0650
Website	www.spot-hs.org.tw/



The Anti-Cancer League-Effective Drug Carrier and Microsphere Fabrications Aim at Cancer Treatment

Cutting-Edge Research and Development for a System on the Pharmaceutical Microsphere Manufacturing for Embolization and in this Regards

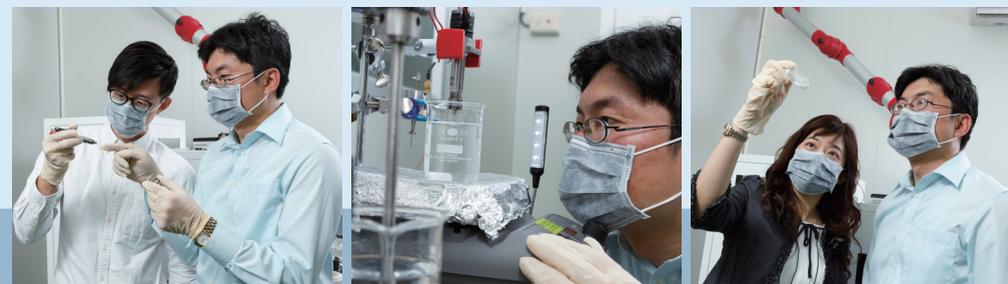
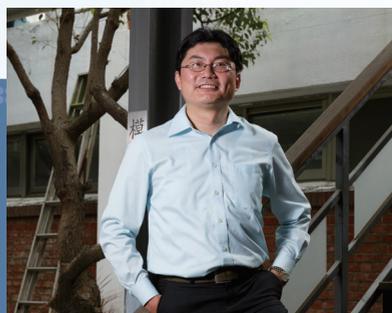
Reasons for Winning

Metal Industries Research & Development Centre (MIRDC) microsphere team has established the micro-chemical engineering laboratory since 2013. With the "When the ball comes we hit, When the cancer comes we kill it" spirit, the homogeneous micro-carrier equipment as research and development direction, combined with academia, medical, and their own research and development energy, they utilize polymer microcarriers to carry different treatment drugs, as various types of clinical indications of drug controlled release formulations, oral medications, and targeted drug delivery systems. The team is a team of cross-disciplinary researchers, cooperating with Yi Shou University's College of Medicine to build the best animal pharmacology team. They possess solid R&D strength and numerous invention patents through the continuous improvement of research and development capabilities. The team continuously improves the product performance and meets the industrial market and customer needs.

Business Philosophy

Open up a new biotechnology medical road into the international biotechnology manufacturers to benefit cancer patients.

-Cheng-Han Hung, Engineer



Key Features

Metal Industries Research & Development Centre (MIRDC) microsphere team has established the micro-chemical engineering laboratory since 2013. From 2013 to 2016, MIRDC implemented The Industrial Technology Foresight Research Program, the Ministry of Economic. In 2013, MIRDC was committed to micro-flow control technology development $\phi 5 \mu\text{m} \pm 1 \mu\text{m}$ SiO₂ microsphere manufacturing equipment development. In 2015, ultrasonic spray polymerization process technology was applied to prepare the Polycaprolactone (PCL) polymer microcarrier. Such polymer microcarriers carry different treatment drugs, as various types of clinical indications of drug controlled release formulations, oral medications, and targeted drug delivery systems. For example, microcarriers can be used as vascular embolization by appropriate particle size, and can also be coating the anticancer drugs as a controlled release dosage form for anticancer drugs. This dual-function microsphere carrier can be used for the treatment of liver cancer (adaptive), while the arterial vascular embolization (fitness) and drug controlled release therapy (timely). The team is a team of cross-disciplinary researchers, cooperating with Yi Shou University's College of Medicine to build the best animal pharmacology team. They possess solid R&D strength, experienced fellows and numerous invention patents. Through the continuous improvement of research and development capabilities, they continuously improves the product performance and meets the industrial market and customer needs.

Company Profile & Business Contact Information

Organization	The Anti-Cancer League-Effective Drug Carrier and Microsphere Fabrications Aim at Cancer Treatment/Metal Industries Research & Development Centre
Team Leader	Ying-Chieh Lin, Deputy Director
Address	1001, Kaonan Highway, Kaohsiung, Taiwan (R.O.C.)
Tel	886-7-351-3909
Fax	886-7-351-3121
Website	www.mirdc.org.tw/



工業技術研究院
Industrial Technology
Research Institute

**Green Energy and Environment Research
Laboratories, Industrial Technology
Research Institute**

Team Category

Fundamental Industrial Technology Development Award



Fluid Machinery Cross-Technology Team

High Value Technologies for
Fluid Machinery Industry



Reasons for Winning

Taiwan's annual export value of fluid machinery has amounted to NT \$ 40 billion, but the relevant equipment power consumption accounted for more than 55% of total electricity consumption. Therefore, the development of high-quality fluid machinery and equipment has become an energy-saving and carbon reduction key project in Taiwan. The fluid machinery cross-technology team of ITRI Green Energy and Environment Research Laboratories has linked the domestic industry, and through the open innovation system platform, featuring a vertically integrated approach to upstream, midstream, and downstream sectors. The team is responsible for delivering complete key materials, component development, testing programs, and the integrated hardware/software system. Collectively, this led the industry to collaboratively develop a number of international leading indicators of quality goods, and helped create its own brand and international marketing. The implementation of domestic energy-saving and carbon reduction as well as the support of the domestic fluid machinery industry transformation and upgrading, ITRI Green Energy and Environment Research Laboratories has achieved an excellent performance.

Business Philosophy

*Construct an open innovation system platform,
excavate Taiwan's fluid machinery industry,
develop a series of high-quality goods,
implement energy-saving, carbon reduction,
and create a concrete business value.*

—Robert Yie-Zu Hu,
Vice President & General Director



Key Features

Fluid machinery is one of key energy-saving and carbon reduction project in Taiwan. The fluid machinery technology team of ITRI Green Energy and Environment Research Laboratories has linked domestic industry to build the open innovation system platform, featuring a major supply chain to integrate upstream, midstream, and downstream sectors. Many world class commercial products have been delivered. It comprises DC inverter-fed compressor, oil-free scroll compressor, centrifugal compressor, car-use electrical compressor, heat-pump system with alternative refrigerant, outer-rotor fan units, etc. The performance of the delivered products, all is leading international indicator, and helped domestic industries to create its own brand, investment in production and marketing international. Not only the developed energy-saving products has been implemented, but also the domestic fluid machinery industry has been transformed and upgraded.

Company Profile & Business Contact Information

Organization	Fluid Machinery Cross-Technology Team/Green Energy and Environment Research Laboratories, Industrial Technology Research Institute
Team Leader	Bing-Chwen Yang, Deputy General Director
Address	195, Sec.4, Chung Hsing Rd., Chutung, Hsinchu 31040, Taiwan (R.O.C.)
Tel	886-3-582-0250
Fax	886-3-591-5383
Website	www.itri.org.tw



Research Team of High-Value Functional Materials

Innovative and High-Value Applications of Nanotechnology on Traditional Industry

Reasons for Winning

The team develops seven original core patented technologies from executing the MOST (Ministry of Science and Technology) research programs. The core technologies include: wet grinding and dispersing technology, novel electrospinning equipment/technology, living free radical polymerization technology, plasma equipment/surface modification technology, novel nickel catalyst technology, novel magnetic nickel wires synthesis technology, and design of drug controlled release system. The greatest advantage of the team is the abundant resources from the industry, the academia, and the research institutes. Gathering the expertise resources from the legal research units, innovative technologies and frontier materials are developed by the academia. The team can thus provide solutions as well as future R&D goals more efficiently to the industry. It is estimated that over one million output value per year from the industry could thus be created.

Business Philosophy

The team develops innovative key materials/processes based on the needs of the industry. The effort is always focused on implanting the academic R&D resources into the industry and promoting them. Recently, the legal units and the industry, in common, aim at the issues such as eco-friendly green materials and carbon capture/recycling of carbon sources, etc. Based on the common, the team pays much attention on being involved in these researches accordingly.

-Chuh-Yung Chen, Distinguished Professor



Key Features

The greatest advantage of the team is the abundant resources from the industry, the academia, and the research institutes. Gathering the expertise resources from the legal research units, innovative technologies and frontier materials are developed by the academia. The team can thus provide solutions as well as future R&D goals more efficiently to the industry.

Seven original core patented technologies from the team are developed with the grant from MOST (Ministry of Science and Technology) research programs. These technologies include: wet grinding and dispersing technology, novel electrospinning equipment/technology, living free radical polymerization technology, plasma equipment/surface modification technology, novel nickel catalyst technology, novel magnetic nickel wires synthesis technology, and design of drug controlled release system. Consequently, a variety of research fields could be expanded from these technologies. The team also implants the research results into the industry to help them upgrade. Meanwhile, some of these above-mentioned technologies are authorized to the related manufacturers for developing as well as commercializing high-value products. The technology license fee is altogether approximately NT\$ 25.9 million. Over one million output value per year from the industry could thus be created. Additionally, Professor Mei-Chin Chen developed "fabrication technology of embeddable polymeric microneedles" and it was already transferred to Sanova Bioscience Inc. (an US company). This is considered rare because the event is an international technology-transfer.

Company Profile & Business Contact Information

Organization	Research Team of High-Value Functional Materials, Department of Chemical Engineering, National Cheng Kung University/National Cheng Kung University Yen Tjing-Ling Industrial Technology Research and Development Center
Team Leader	Chuh-Yung Chen, Distinguished Professor
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Fax	886-6-234-4496
Website	http://web.che.ncku.edu.tw/



i-Tribe Wireless Broadband Team, Smart System Institute

i-Tribe Wireless



Reasons for Winning

The team, in line with the government's policy of caring for the aboriginal rural areas, constructed the wireless broadband network environment for the indigenous people to allow the indigenous people to have better application for the internet. Through the construction of i-Tribe, the tribe enjoys the broadband network for medical, educational, agricultural products, sightseeing, aboriginal cultural marketing, and other services. This team utilizes i-Tribe wireless broadband construction for seminars, lectures, website and APP development, and i-Tribe film campaign, to narrow the aborigines digital gap and strengthen digital learning. Through the improvement of Internet access, agricultural products, cultural and natural assets can be possessed of sufficient marketing channels.

Key Features

To accelerate the development of mobile communication industry, in line with the government's policy of caring for the aboriginal rural areas, i-Tribe offers free public wireless broadband network environment to allow the indigenous people to have better applications for the internet. People introduce future application services such as farm guided tours with the expectation for local economic growth. From 2015-2017, 160 tribes will be built with i-Tribe by Council of Indigenous People. Another 120 tribes will also be built with i-Tribe by coordinating with Ministry of Education in elementary schools. Therefore, Peoples in 280 tribes can gradually enjoy i-Tribe broadband Internet access. The future target for this team is to "become the Global Model for Wireless Broadband Internet in aboriginal areas".

Business Philosophy

A vision of "The construction of the internet environment for the aboriginal rural indigenous areas, to become a global wireless broadband internet model".

-i-Tribe Wireless Broadband Team, Smart System Institute



Company Profile & Business Contact Information

Organization	i-Tribe Wireless Broadband Team, Smart System Institute/Institute for Information Industry
Team Leader	Ming-Whei Feng, Vice President and Director General
Address	7F., No.133, Sec.4, Minsheng E.Rd., Taipei City, Taiwan (R.O.C.)
Tel	886-2-6607-3888
Fax	886-2-6607-3507
Website	www.iii.org.tw/About/Department.aspx?dp_sqno=1&fm_sqno=36



Koche Fashion Co. Ltd

Hayashi Department Store-
a Window to Tainan



Reasons for Winning

Hayashi Department Store, Taiwan's first Cultural and Creative Department Store, is looking to be Taiwan's smallest, but also the most beautiful and oldest creative department store, allowing the world to see Tainan, bringing warm stories a marketing strategy and word of mouth, to create unprecedented topics. Hayashi Department Store and the century old Alley Tainan's with its cutting-edge design and cooperation with Taiwan's contemporary craftsmen, introduced a representative and the topicality of goods. Hayashi Department Store is Focus Square's new starting point for local cultural cultivation and the cultural industry. Being part of the city's industry, and bringing a new imagination combined with local characteristics and talent, it creates a new Tainan cultural window for Tainan to face the world.

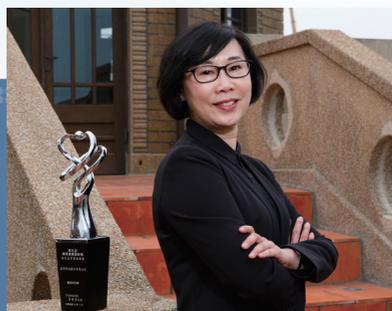
Key Features

The rebirth of the Hayashi Department Store will be culture-oriented and a new business model for malls in the city, creating more than a single building space operation of the imagination. Each floor represents a part of Tainan's culture charm, including the First floor theme of "Hospitable Hall" showing the hospitable spirit of Tainan's people. The second floor theme of "Good Design" and the third floor theme of "Good Fashion" displays exquisite clothing, accessories, and shows a slow lifestyle. The Fourth floor theme of "Good Culture" includes travel bookstore, record store, coffee, and gives refreshment to travelers. On the fifth floor, the theme is "Tainan Cuisine", and on the sixth floor theme will be "Tainan's Good Scenery", as well as the top floor theme will be the "Moguang club", combined with the shrine and travel blessing of the retro mailbox ideas. The museum and the combination of local craftsmen, a century old shop, launched a number of limited forest goods, to represent Taiwan's Craft. Hayashi Department Store emphasizes the value of "old", conveying the story of the times. Every year the local community and the city's modern parade has become a ever-growing local event in Tainan. The revitalization of monuments to the local people has a sense of glory and cohesion, which is the collective identity of the team to create the highest value of the Hayashi Department Store brand, clearly presenting "Old is New" for what it really means.

Business Philosophy

Hayashi Department Store gathers the cultural heritage and creative energy of the city. The concept of "Letting the World See Tainan" is idealistic and represents the cultural identity of the city.

-Vicky Chen, General Manager



Company Profile & Business Contact Information

Organization	Koche Fashion Co. Ltd
Team Leader	Vicky Chen, General Manager
Address	No.63, Sec. 2, Zhongyi Rd., West Central Dist., Tainan City 700, Taiwan (R.O.C.)
Tel	886-6-2213-000
Fax	886-6-2210-102
Website	www.hayashi.com.tw

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Innovation comes from a heart unwilling to stay ordinary.

Thomas T.S. Chou,
Vice President, Technology



Reasons for Winning

Dr. Thomas T.S. Chou, Vice President of Technology at SuperAlloy Industrial Company Ltd. (SAI), has been dedicated to the research development and manufacturing in the metal industry. With considerable hands-on experience in the R&D, production and application of metal and non-metal materials, he leads teams that releases products based on "blue ocean strategy". Their products include steels, aluminum alloys, titanium alloys, magnesium alloys and shape memory alloys. The production techniques devised by Chou's team are the best in Taiwan and even take the lead in the world. For instance, the yield rate of their forged magnesium alloy wheels approaches 100%. Moreover, their exclusive hot forging technology is favorable to the central government's prospective aviation policy—domestic production of combat aircraft. Chou has also urged the industry-academia collaboration for National Yunlin University of Science and Technology, bringing the school into the field of Industry 4.0. His relentless effort and devotion has won him many awards, including the highest accolade—The Executive Yuan Award for Outstanding Science and Technology Contribution.

Biography

- (1) Education**
- Ph.D., University of Cambridge, UK (1991-1994)
 - M.S., National Cheng-Kung University (1982-1984)
 - B.S., National Cheng-Kung University (1978-1982)
- (2) Experience**
- Vice President, SuperAlloy Industrial Co., Ltd. (2015-present)
 - Senior Consultant/Director of the Board, Advanced Material Specialty Inc. (2008-2014)
 - Vice President, Cheng-Uei Precision Industry Co., Ltd. (2008-2008)
 - Associate Vice President, Silitech Technology Corp. (2003-2007)
 - President, Landsfair Technology Corp. (2000-2003)
 - Associate Scientist, China Steel Corp. (1985-2000)
- (3) Awards**
- Annual Best Paper Award, The Chinese Institute of Mining and Metallurgy Engineers, 2017, 2000, 1992
 - Outstanding Paper Award, Chinese Society of Materials Science and Engineering, 2003, 2000, 1997
 - Outstanding Poster Award, Chinese Society of Materials Science and Engineering, 2003, 1997
 - Asia's Who's Who of Men and Women of Achievement, 1995
 - Outstanding Scientist in Applied Science, Executive Yuan, 1992
 - Outstanding Research Award, Executive Yuan, 1992
 - Core Technology Scholarship, China Steel Corporation, 1991-1994
 - Research Project Excellence Award, Ministry of Economic Affairs, 1991

Acceptance Speech

R&D requires endless endeavor. I really appreciate those who once gave me assistance, advice and encouragement since they have polished up my abilities and made me grow mellow. More than fifteen years of my working at China Steel Corporation (CSC), I was provided with abundant resources and allowed to give full play to my professional knowledge, which nourished my research career. What's more, when pursuing my PhD, I was lucky enough to study under Sir Harry Bhadeshia, the Professor in the Department of Materials Science and Metallurgy, University of Cambridge. Sir Professor Bhadeshia is such a friend and mentor that he not only helped me with my study but also inspired me by sharing his life experience. Through the R&D work on the recrystallization of different materials, I have come to realize that life is also a form of crystallization. During each process of crystallization, results would differ due to different circumstances. Hence, in our life, what we can do is seize every opportunity and spare no effort to achieve better outcomes.

I would like to express my heartfelt gratitude to my parents for their nurture and thank my brothers and other family members for their support and understanding. My wife, in particular, backs me up firmly so that I can keep focusing on innovative R&D without worries.





C.C. Chen

Taiwan Semiconductor Manufacturing Company Limited

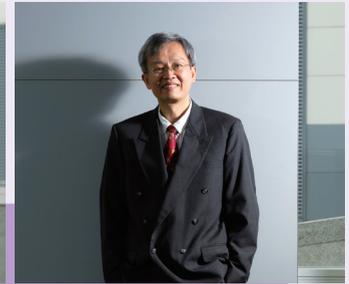
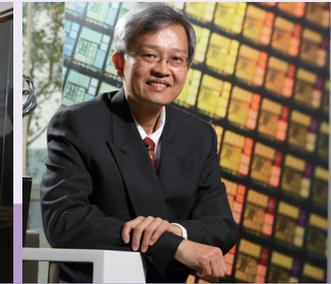
Individual Category

Innovative Elite Award (General Individual Group)



Relentless effort brings good fortune. Something that stays in your mind will someday pop up in your life.

C.C. Chen, Director of Front-End Etch Department



Reasons for Winning

Mr. C.C. Chen is the Director of Front-End Etch Department, Taiwan Semiconductor Manufacturing Company Limited (TSMC). With nearly 20 years of working experience in the R&D of plasma etching, he has achieved a series of technical improvements from 0.25 μm to 10 nm and successfully applied tuning technology to plasma etching process. With the compensation of loading effect, the fin width can be controlled and the manufacturing process can be simplified. The problem of low efficacy due to variation of the fin width in FinFET can therefore be solved. Moreover, the reverse of loading effect prevents the breakdown of the oxide layer under high voltage during the FinFET manufacturing process. With the thoroughly tested 10 nm process technology in hand, TSMC has stood out from other competitors and exclusively received orders from clients. On the other hand, the company has set a higher entry barrier and created cost advantages for Taiwan's semiconductor industry.

Acceptance Speech

We never run out of ideas when engaging in R&D in TSMC. The key of TSMC's continuous innovation and leading technology in the industry is due to our grasp and emphasis on the details throughout the manufacturing process in the pursuit of excellence. And we make them our faith. To take on the challenge of shrink process and make Moore's Law continue, we need to give weight to fundamental technologies and pay attention to details. Besides, we try hard to extend TSMC's influence on the industry, getting the entire supply chain to seek higher specifications and to exercise cost control. In the end, we hope that economies of scale will be achieved under Moore's Law through industrial innovation conducted by the whole industry.

Biography

- (1) **Education**
- Ph.D. in Polymer Science & Engineering, UMASS, USA (1991-1995)
 - M.S. National Taiwan University (1987-1989)
 - B.S. National Taiwan University (1983-1987)
- (2) **Experience**
- Director, TSMC (2016-present)
 - Front End Deputy Director, Department manager, TSMC (2010-2015)
 - Academician, TSMC (2007-present)





Pessimism comes from one's emotion; optimism shows one's will.

Victor Tsan, Vice President and Director General

Reasons for Winning

Dr. Victor Tsan serves as Vice President and Director General of MIC. In this role, Tsan provides thought leadership, expert opinion, in-depth analysis and research and intelligence on all topics related to the high-tech industry like intelligence capital, industrial policy, and corporate strategic planning. With over 20 years of experience in the high-tech industry, Tsan leads or has led several large-scale projects funded by the government. He is currently the principal investigator of 2025 Taiwan Industry and Advanced Technology Research Project and is also the general convener of the Energy Policy Strategy Division of National Energy Program-Phase II. Moreover, Tsan is the first person to develop the Cross-Strait Exchange Risk Index, which serves as a guide to facilitate the decision-making process of the Ministry of Economic Affairs, National Security Council, Mainland Affairs Council, and other government agencies in charge of cross-strait affairs. Integrating government technologies and market information, he is able to provide consulting services for industrial associations as well as small and medium enterprises. In acknowledgment of his dedication to the industrial development, Tsan was selected as one of Taiwan's Top 100 Outstanding Young Persons of the 21st Century (Industrial Category).

Biography

- (1) Education**
- Ph.D. in Information Management, National Central University (1997-2003)
 - M.S. National Cheng-chi University (1985-1987)
 - B.S. National Central University (1981-1985)
- (2) Experience**
- Advisor to MOEA
 - President, Asia Pacific Industrial Analysis Association (APIAA)
- (3) Awards**
- Top 100 Outstanding Young Persons of the 21st Century—Industrial Category, 1995
 - Outstanding Technology Development Program Award, MOEA, 1998
 - Golden Book Award- 《Achieving your career success with Kongming's wisdom》, 2013



Acceptance Speech

I would like to attribute much of my achievements, if any, to the full-hearted assistance and support given to me by my parents, family, superiors, friends, and my beloved colleagues. I could not have achieved this honor without them. The National Industrial Innovation Award presented by the Ministry of Economic Affairs has given me an great opportunity to review the efforts that MIC has put into driving industrial transformation and upgrade over the years. Furthermore, it also implies that MIC's role as a think tank and consultant for the government and the industry is highly recognized by the jury.

In the future, we will keep on providing comprehensive intelligence and consulting services for the government and the industry to generate the maximum value and profits. Moving forward, we will also continue to make the greatest contribution towards promoting the industrial transformation and upgrading of Taiwan.



Jupiter Hu

Industrial Technology Research Institute, Electronic and Optoelectronic System Research Laboratories



Rejoice always, pray continually, give thanks in all circumstances.

Jupiter Hu, Deputy General Director

Reasons for Winning

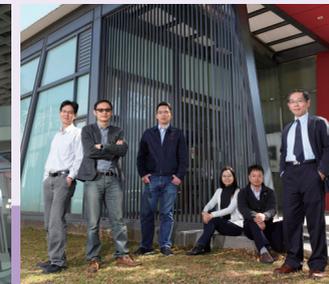
Mr. Jupiter Hu works at Industrial Technology Research Institute (ITRI) as the Deputy General Director of Electronic and Optoelectronic System Research Laboratories. For the past five years, Hu has embarked on three R&D topics, including Roll-to-Roll (R2R) Manufacture Technology, OLED Lighting and digital manufacturing for low carbon production. The team he leads has set up the first pilot line exclusively for OLED Lighting production in Taiwan. This unique technology has surpassed the production techniques in Japan and Korea and attracted the investment of multinational factories. The investment amount exceeds NTD\$ 2 billion. Besides, he urged the establishment of OLED Lighting Commercialization Alliance (OLCA), which has integrated various resources such as manufacturing processes, materials, equipment and systems application for the development of OLED lighting products. Since 2014, Hu has participated in the "Core technologies of Smart Handheld Devices" Program being the co-investigator and PI (Principal Investigator of Sub Project). His continuous innovation in technologies has earned him many awards.

Biography

- (1) **Education** • Ph.D. National Chiao Tung University (1991-1997)
- (2) **Experience** • Deputy General Director, EOSL, ITRI. (2015-present)
• Division Director, EOSL, ITRI. (2008-2015)
- (3) **Awards** • Wall Street Journal Technology Innovation Award "Micro-Deformable Piezoresistive Sensor Technology", 2010
• Chinese Institute Engineers Outstanding Engineer Award, 2013
• Minister of Economic Affairs Industrial innovation recognition award, 2014
• Chinese Society for Management of Technology Awards for Academic/Institute Team "Roll to roll equipment and technology development", 2016
• USA R&D 100 final list "Self-Guided Additive Manufacturing for Minimum Carbon Emission with Roll-to-Roll-Production Systems", 2016



Individual Category Innovative Elite Award (General Individual Group)



Acceptance Speech

Flexible electronics has been developed in Taiwan for 10 years and built its foundation as more and more technologies receive worldwide attention. With the support of Ministry of Economic Affairs, Taiwan's Flexible Electronics Pilot Lab was founded to serve as a platform for the R&D of end products. The lab now has secured its position as the global hub of R2R Manufacturer Technology.

I really appreciate our partners-5 legal entities, over 20 professors and over thirty enterprises from all over the world. Thanks to their support, we could accelerate the development of materials, equipment, processes and system integration and product design.

In the future, flexible electronics will be more intelligentized and applied to IoT sensors, green energy and biomedical sciences.





Y.F. Huang

Taiwan Semiconductor Manufacturing Company Limited



**Pursue excellence;
keep learning.**

Y.F. Huang, Director of 300mm
Fabs Technical Board

Reasons for Winning

Mr. Y.F. Huang, the Technical Board Director, has developed a manufacturing system that depends mainly on artificial intelligence. Combined with a big data analysis platform that features data mining and machine learning, the system is able to reach nanoscale precision during the manufacturing process. Also, Huang has substantially improved the man-to-machine ratio and increased the productivity of machines by 10% to 15% per year. Through the collaboration between the manufacturing and engineering system, he has further applied the cutting-edge automated machinery, automated material handling system and automated dispatch system to the wafer foundries. Now, with up to 99% automation level and the greatly enhanced productivity and quality, the "smart fabs" have become role models for the industry. Meanwhile, Huang has held the Big Data Analytics Competition and pushed forward industry-academia collaboration for National Taiwan University and National Tsing Hua University, attracting hundreds of top talents to work for TSMC.

Biography

- (1) **Education** • B.S. Department of Industrial Engineering, National Tsing Hua University (1984-1988)
- (2) **Experience** • Director, 300mm Fabs Technical Board, Taiwan Semiconductor Manufacturing Company
- (3) **Awards** • TSMC Innovation & Customer Partnership Award, 2005

Individual Category

Innovative Elite Award (General Individual Group)



Acceptance Speech

Since TSMC established its 300mm fabs in 2000, we have set the goal to achieve automated manufacturing. After more than ten years of hard work, we not only attain our goal but also successfully upgrade the whole manufacturing system from automation to intelligentization. Moreover, we have achieved advanced strategy planning, process improvement and technological innovation. In light of a more sophisticated manufacturing environment and more intense competition, intelligentization will play a crucial role in the semiconductor industry.

It is my honor to receive the National Industrial Innovation Award this year. This award is a huge inspiration to me as well as to the team involved in the system development. I would like to show my appreciation to TSMC, my team and the jury. I will keep pursuing excellence and put more effort into manufacturing with my team, consecutively setting good examples for the semiconductor industry.





You may not reach and capture the stars, but at least you won't get dirty from them.

Michelle Sung,
Founder & CEO

Reasons for Winning

Ms. Michelle Sung, the founder of Ten Art Biotech Limited, is now the General Manager and CEO. Sung launched three brands, including ERH, a brand for skin care products, MasKingdom, a brand for facial masks and SASSI BABY, a brand for baby care products respectively in 2007, 2012 and 2015. The products developed by Ten Art Biotech have passed the world's first approved SGS 72 hours human patch test. Besides, Sung insists on experiential marketing. In Taiwan, she opened the first flagship store featuring "installation art", "art curating" and "interactive digital technology". Also, she creates a unique business model by positioning MasKingdom as a boutique facial mask brand. With persistence in providing natural and non-toxic products, she uses natural plant extract and thus helps persimmon farmers strike a balance between supply and demand. Sung has received Business Startup Award twice from Small and Medium Enterprise Administration, Ministry of Economic Affairs.

Biography

- (1) **Education**
- EMBA at University of South Australia
- (2) **Experience**
- CEO/GM of Ten Art Biotech Limited (2010-present)
 - GM of Enrich Biotech Global Limited Taiwan Branch (2007-present)
 - Consultant for international brands
 - Column writer specialized in skin care
- (3) **Awards**
- Business Start-up Award, 2009, 2012
 - Women's Outstanding Startups Business Awards, 2012
 - FT-Standard Chartered Taiwan Business Awards, 2014
 - A' design & Competition Award Bronze, 2016
 - Red dot communication design award winner, 2016



Acceptance Speech

I am really grateful that we, as a company in beauty industry, can receive such an honor. I am Michelle Sung, the founder of Ten Art Biotech and the three brands—Maskingdom, ERH and SASSI BABY. I used to study abroad, so I have introduced my products to 28 countries. I have lived and grown up in Taiwan since I was little. Because of my love for the beautiful island, I exerted my imagination and tried to put all the elements about Taiwan into my products. Even a 0.2 cm facial mask is full historical and cultural sense of Taiwan, therefore, people around the world may realize her beauty.

I am really glad that my ideas could be put into practice and become products that represent Taiwan. This award means a lot not only to me but to Taiwan's beauty industry. In the future, I will work harder to promote Taiwanese local brand. Last year, we won A' Design Award in Italy and Red Dot Design Award in Germany; this year, we will attend four international exhibitions and shoot for eco-friendly and invention awards to further raise the visibility of Taiwan's excellent beauty industry.



Jing-Wen Tang

Div. of Fiber & Textile Chemicals Technology,
 Industrial Technology Research Institute



To become an all-around innovative researcher with professional knowledge, vision, passion, high EQ, and management skills.

Jing-Wen Tang, Division
 Director & Principal Researcher

Reasons for Winning

Ms. Jing-Wen Tang is one of the Division Director of Material and Chemical Research Laboratories, ITRI, carrying out studies on fiber and textile chemicals. She has integrated ITRI's textile, biomedical, mechanical, optoelectronics, and measurement technologies for the development of next-generation smart textiles. Following the trend of eco-friendly bio-materials, the textile industry in Taiwan has found its new way. Tang incorporates silver nanowire technology and nanosecond pulsed near-field sensing (NPNS) technology to launch smart textiles with contactless sensors. This innovative technology has won her the 2016 R&D 100 Awards. Additionally, the technology of smart heating textiles has been transferred to manufacturers and has undergone pilot production. In the future, she will keep developing smart textiles with the concept of "fibers are components". Tang has been coaching more than 10 textile manufactures, gaining public recognition from the industry.

Biography

- (1) **Education**
- M.S. Textile Engineering, Feng Chia University (1984-1986)
 - B.S. Textile Engineering, Feng Chia University (1980-1984)
- (2) **Experience**
- Div. of Fiber & Textile Chemicals Technology, ITRI. (2015-present)
 - Program Director, Textile Chemicals & Specialty Chemicals Program, ITRI (2014-2015)
 - Principle Researcher, Material and Chemical Research Laboratories, ITRI (2007-present)
 - Deputy Director, Division of Advanced Fiber and Bio Materials Research (2006-2014)
 - Department Research Supervisor, Division of Advanced Fiber and Bio Materials Research (1998-2006)
 - Researcher, Division of Man-made Fiber Research, ITRI (1992-2006)
 - Associate Researcher, Division of Man-made Fiber Research, ITRI (1986-1992)
 - Taiwan Technical Textiles Association (2016-present)
 - Supervisor, Textile R&D Association International, Taiwan (2016-present)
 - Supervisor, Fiber & Composite Association, Feng Chia University (2015-present)
 - Committee Member, National Textile Standards Technical Committee, (2011-present)
 - Bureau of Standards, Metrology & Inspection, M.O.E.A
- (3) **Awards**
- R&D 100 Awards, 2016
 - Excellence of Promotion & Service, ITRI, 2013, 2003, 2002, 1991
 - Outstanding Engineer, Chinese Institute of Textile Engineers, 1994

Individual Category Innovative Elite Award (Woman Group)



Acceptance Speech

30 years ago, I quit my teaching job and threw myself into R&D by chance. This fateful decision led to my lifelong career in innovative textile research. Over the years, what I have engaged in is a traditional industry that desperately seeks for breakthrough. Apart from professional knowledge, the upgrade of the industry requires many supporting strategies and actions. First of all, I have gained a deeper insight into the textile industry. Then, I have brought together experts in textile, manufacturing processes, chemistry, analytics and machinery. Only by joint effort could we infuse new life and better competitiveness into the industry and release many eye-catching innovative products all over the world. Although the award is intended for an individual, I thank my family members, who have backed me up for years, and my teammates, who have striven to put industrial innovation into practice with me for more than 20 years. Also, my superiors' support and guidance have inspired me a lot. Last but not least, as a dancer needs a stage, I am lucky enough to have one provided by the industry to conduct various "factory experiments". So, this honor should belong to everyone involved.





Vincent Hsu

Taiwan Semiconductor Manufacturing Company Limited

Individual Category

Innovative Elite Award (Youth Group)



Stick to positive thinking,
and find the best way out

Vincent Hsu, Manager of
CMOS Image Sensor Division



Reasons for Winning

As the R&D Manager of TSMC, Mr. Vincent Hsu has specialized in complementary metal-oxide-semiconductor (CMOS) image sensor technology for 14 years. He has successfully developed backside illuminated CMOS image sensors, which are available for mass production. The backside illumination (BSI) technology has led the industry for seven years and predominated the image sensor technology of mobile phones. The recent development of wafer stacking is also based on BSI technology. It could be referred to one of the most significant technologies throughout the history of image sensor development. In addition, Hsu has accomplished the development of two wafers stacking technologies, stacked and hybrid stacked, as well as the deep trench isolation (DTI) technology, which has been applied to iPhone 6s. His constant effort has led to major reforms in industrial development and has earned him 103 patents around the world. Hsu not only cements TSMC's leading position in the industry but also yields considerable revenues for the company and for Taiwan.

Biography

- (1) **Education**
- Ph.D., Institute of Microelectronics, NCKU, TW (2002-2005)
 - B.S. National Cheng Kung University (1997-2001)
- (2) **Experience**
- Manager, TSMC CISD (2014-present)
 - Section Manager, TSMC CISD (2009-2014)
 - Principle Engineer, TSMC CISD (2006-2009)
 - Intern, TSMC CISD (2002-2005)
- (3) **Awards**
- NCKU Lam Technical Ph.D. Thesis Award, 2005
 - TSMC Granted Patent Award, 2006
 - TSMC MTTD 1H Conference Award, 2007
 - TSMC Q&R CIT Competition Award, 2009
 - TSMC IP Special Contribution Award, 2015
 - TSMC Golden Trade Secret Award, 2016

Acceptance Speech

First of all, I am really grateful for the jury's recognition so that I can receive this honor on behalf of TSMC.

What's more, I really appreciate my superiors for their instruction, appreciate the manufacturing team for their long-term cooperation and my partners for making me grow. Despite of many difficulties, we keep making remarkable progress in the R&D of image sensors, trying to create a better life for people with innovation.

I also need to show my gratitude to my company for giving me abundant R&D resources, so that I can stand on the shoulders of giants and live a splendid life. I'm proud of TSMC and willing to do my best to create higher value for my company.

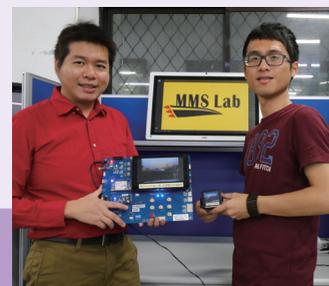
Lastly, I need to thank my family for their unstinting support. Their encouragement helps me go through pressure and depression, allowing me to forge ahead with my career.





1. Winners find ways for their success, while losers make excuses for their failure.
2. Don't say "No" before you start. Nothing is impossible. Just give it a try.

Shih-Chia Huang, Professor



Reasons for Winning

Mr. Shih-Chia Huang is the professor of Department of Electronic Engineering, National Taipei University of Technology (NTUT). Huang's specialties and research include the visibility restoration technology, digital image enhancement technology, intelligent backlight control, intelligent video surveillance systems, BlueNet ride-hailing and ride-sharing service system, automatic face recognition system and so forth. He has been granted two patents in Taiwan and the US for his digital image enhancement technology and intelligent backlight control. The two technologies are the best in the world and have been transferred to Chi Mei Optoelectronics Corporation (CMO) with a payment of NTD\$ 730,000. Furthermore, Huang has successfully created the world's first intelligent video surveillance system operating on a smart TV. His fruitful development of various important technologies has boosted the upgrade of related industries in Taiwan.

Biography

- (1) Education**
- Ph.D. National Taiwan University (2005-2009)
 - M.S. National Chiao Tung University (2002-2005)
 - B.S. National Taiwan Normal University (1998-2002)
- (2) Experience**
- Chapter Chair, IEEE Taipei Section Broadcasting Technology Society (2015-present)
 - Guest Editor, Special issue on Big Data Analytics and Business Intelligence in Industry, Information Systems Frontiers (2016)
 - Guest Editor, International Journal of Web Services Research (2015)
 - Associate Editor, Journal of Artificial Intelligence ISSN:2229-3965 (2013-present)
 - Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2016)
 - Services and Applications Track Chair, IEEE CloudCom conference (2016)
 - General Chair, IEEE BigData 2016 Taipei Satellite Session (2014-2016)
 - Applications Track Chair, IEEE BigData Congress (2015)
- (3) Awards**
- Kwoh-Ting Li Young Researcher Award, Taipei Chapter of the Association for Computing Machinery, 2011
 - Project for Excellent Junior Research Investigators, National Science Council, 2011-2014
 - Outstanding Research Award, National Taipei University of Technology, 2014
 - Outstanding Research Award, the College of Electrical Engineering and Computer Science of National Taipei University of Technology, 2014-2016

Acceptance Speech

It is a great honor to receive the National Industrial Innovation Award—Youth Innovator Award. First, I have to thank my parents as they are my strongest prop. Then, I am grateful to my principal advisor, Professor Sy-Yen Kuo, who gave me a lot of inspiration and instruction during my doctoral studies in National Taiwan University. Lastly, I need to thank NTUT for offering me a great research environment and thank students in the Multimedia System Laboratory for working hard with me.



Hung-An Kao

Central Industry Research & Service Division
(CID) of Institute for Information Industry



Logic will get you from A to B. Imagination will take you everywhere. (Albert Einstein)

Hung-An Kao, Section Manager

**Individual Category
Innovative Elite Award (Youth Group)**



Reasons for Winning

Ms. Hung-An Kao works in Central Industry Research & Service Division (CID) of Institute for Information Industry (III). With a professional background in information engineering, Kao sets foot in the traditional machinery industry. She utilizes information and communication technologies (ICT) to develop a cross-industry service integration platform for intelligent machines as well as its related software and hardware. The platform, referred to as "Servolution", is integrated with industrial big data analysis and IoT technology, being able to eliminate the communication barrier resulting from heterogeneous data among the equipment in a factory. Through automated data gathering, Servolution can provide customized manufacturing applications and real-time prediction of production, which fills the gaps throughout a value chain. In addition, Kao has urged the foundation of Servtech Co., Ltd. She even pours academic energy about machinery and information engineering into the industry to enhance its ability to increase uptime and yield rates.

Biography

- (1) Education**
- Ph.D. University of Cincinnati, USA (2012-present)
 - M.S. National Taiwan University (2006-2008)
 - B.S. National Taiwan Normal University (2002-2006)
- (2) Experience**
- Section Manager, Institute for Information Industry (2008-present)
 - Consultant, Corporate Synergy Development Center (2016)
 - Cofounder, Servtech (2014-present)
 - Product Engineering Intern, Lam Research/Customer Support Business Group (2014)
 - Lecturer, National Taiwan University Information System Training Program (2007-2011)
- (3) Awards**
- M2M Entrepreneurial Company of the Year, Frost & Sullivan, 2015
 - First Prize in Internet, mobile and Software computing group, Intel Global Challenge, 2014
 - Intel Award, APEC Accelerator Network Summit, 2014
 - Technology Elite Award, Institute for Information Industry, 2015

Acceptance Speech

First of all, I have to show my gratitude to the superiors in III for instructing me over the years and proposing me for the award. In addition, I really appreciate that I could receive such a positive appraisal from the jury among many outstanding elites. Of course, I also need to thank my parents for educating me based on my interests, so that I could explore and reach my potential.

Software and hardware, standing respectively for innovation and tradition, seem to be two distinct fields. However, with an open mind and the courage to try new things, I have kindled sparks between the two fields, which become indispensable for IoT products in the current trend of Industry 4.0. It was really an unknown journey for me to switch from software design to the application of industrial machines. Fortunately, my perseverance pays off. To me, this award is more than just an honor; it shows us the value of seeking innovation and reform instead of being satisfied with the existing status. And this is also the only way to stay competitive in such a rapidly changing world.

Again, I would like to show my appreciation to the jury for their recognition. I hope that my little achievement can benefit the public. In the future, I will try my best to inspire younger generations to enhance the competitiveness of Taiwan's industries with innovation.





Hung-Wei Wu

Innovation, Startup and Incubation Center, Kun Shan University/
Department of Computer and Communication, Kun Shan University



Innovators are rule breakers. Never hang back despite countless defeat and criticism.

Hung-Wei Wu, Director & Professor

Reasons for Winning

Mr. Hung-Wei Wu is the Director of Innovation, Startup and Incubation Center and the Professor of Department of Computer and Communication in Kun Shan University (KSU). Wu specializes in microwave engineering, optoelectronic semiconductors and biotechnology. He has successfully developed the platform and the chip for the antibody-free microwave cancer cells screening system, which won him the 2016 IEEE MTT-S Outstanding Young Engineer Award and National Innovation Award in 2015 and 2014. The technology can be applied to the early diagnosis, therapeutic monitoring and prognostic tracking of lung cancer, colo-rectal cancer and breast cancer. Moreover, Wu has developed microwave transparent conducting materials and brought the technology into the industry. Meanwhile, he has also founded two startups. Not only has Wu enhanced the competitiveness of Taiwan's medical industry but his innovation has also been widely applied to 3C products, vehicle electronics, defense technology, aerospace technology, and so forth.

Biography

- (1) Education** • Ph.D., Institute of Microelectronics, National Cheng Kung University (2004-2007)
- (2) Experience**
- Professor, Department of Computer and Communication, Kun Shan University
 - Associate Editor, International Journal of Microwave and Wireless Technologies
 - Associate Editor, Recent Advances in Electrical & Electronic Engineering
 - Vice Chair, IEEE Tainan Section Young Professionals
 - Member, IEEE EMB-S Technical Committee on Bionanotechnology and BioMEMS
 - Member, IEEE MTT-S Technical Committee on MTT-8, MTT-10, and MTT-19
 - Member, IEEE Region-10 Conference & Technical Seminar Committee
- (3) Awards**
- Outstanding Electrical Engineering Professor Award, Kaohsiung Branch at CIEE, 2017
 - National Industrial Innovation Award, 2017
 - IEEE MTT-S Outstanding Young Engineer Award, 2016
 - National Innovation Award, Institute for Biotechnology and Medicine Industry, 2015
 - MOST Outstanding Research Talent Reward of Universities, 2015
 - Potential Startup Award, FITI Startup Competition by Ministry of Science and Technology, 2015
 - National Innovation Award, Institute for Biotechnology and Medicine Industry, 2014
 - Outstanding Young Electrical Engineer Award, Chinese Institute of Electrical Engineering, 2014
 - Outstanding Electrical Engineer Award, Kaohsiung Branch of Chinese Institute of Electrical Engineering, 2014
 - MOST Outstanding Research Talent Reward of Universities, 2014
 - IEEE Tainan Section Best GOLD Member Award, 2013
 - Outstanding Youth Award, The Electronics Devices and Materials Association, 2013



Individual Category Innovative Elite Award (Youth Group)



Acceptance Speech

I really appreciate the organizer and the jury for their recognition. From nothing to something, from zero to one, from the laboratory to the business office, it is really a tough process. To a person who stays in academia like me, there is still a lot to be learned and to be improved, so I always see things with modesty. The commodification of an innovative technology has to undergo criticism, opposition and stress. Although the environment and resources of KSU cannot compare to those of top universities, my ideal to open up opportunities for the public never falters. I am grateful to my family, my friends and benefactors, who support, encourage and assist me over the years. Even though the award is given to me, this honor should belong to each of my partners who contribute silently. "Since life is short, try to spend it in a splendid way". We will cling to our ideals and keep moving forward in the future.





Ke-Horng Chen

Department of Electrical and Computer Engineering, National Chiao Tung University

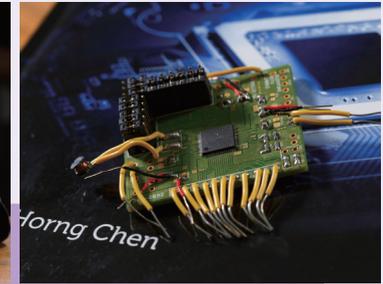
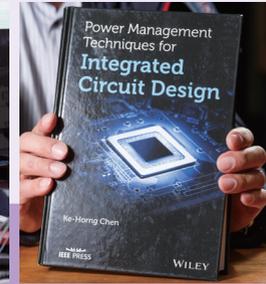
Individual Category

Industry-Academia Collaboration Award



The most valuable thing in life is uncertainty. Only by perseverance will you get closer to your goals and dreams.

Ke-Horng Chen, Professor & Chairperson



Reasons for Winning

Dr. Ke-Horng Chen is the Professor and Chairperson of the Department of Electrical and Computer Engineering, National Chiao Tung University (NCTU). Dr. Chen has been dedicated to applying the control theory to power management systems in the green-power electronics industry. During his teaching career in NCTU from 2004 to 2016, Dr. Chen has carried out 7 projects from the Ministry of Education, 3 projects from the Hsinchu Science Park Bureau, 15 projects from the Ministry of Science and Technology, and 67 industry-academia cooperation projects with different high-tech companies. He has also developed the world's first 4K ultra-HD single-chip exclusively for smartphones and the Realtek's power management module in Ethernet controllers. Till now, the technology transfer fees of his projects have reached NTDS\$ 14 million. Dr. Chen cooperates with many companies and organizations, including Novatek, Realtek, ITRI, Richtek, TECO, Anpec, and so forth, and he has obtained 44 patents in the US and 55 patents in Taiwan.

Biography

- (1) **Education**
- Ph. D. National Taiwan University, Taiwan (1996-2003)
 - M. S. National Taiwan University, Taiwan (1994-1996)
 - B. S. National Taiwan University, Taiwan (1990-1994)
- (2) **Experience**
- Chair, Department of Electrical and Computer Engineering, National Chiao Tung University, Taiwan (2016-present)
 - Director, Institute of Electrical Control Engineering, National Chiao Tung University, Taiwan (2013-2016)
 - Professor, Department of Electrical, and Computer Engineering, National Chiao Tung University, Taiwan (2011-present)
 - Associate Professor, Department of Electrical and Computer Engineering, National Chiao Tung University, Taiwan (2008-2011)
 - Assistant Professor, Department of Electrical Control Engineering, National Chiao Tung University, Taiwan (2004-2008)
- (3) **Awards**
- The Chinese Institute of Electrical Engineering, "Distinguished Professor of Electrical Engineering", 2016
 - National Chiao Tung University, "Excellent Teaching Award", 2013
 - National Chiao Tung University, College of Electrical and Computer Engineering, "Excellent Teaching Award", 2011
 - Industrial Technology Research Institute "Quality Patent Award", for US patent 7,408,333 "Power supply apparatus", 2010
 - National Chiao Tung University, "Distinguished Honor Award", 2009
 - Chinese Automatic Control Society, "Youth Automatic Control Engineering Award", 2008
 - National Chiao Tung University, College of Electrical and Computer Engineering, "Outstanding Teaching Award", 2008
 - National Chiao Tung University, "Distinguished Honor Award", 2008

Acceptance Speech

My team has been dedicated to applying the control theory to power management systems in the green-power electronics industry. We have cooperated with many companies to help improving the efficiency of their products, with integration of their products and green-power technologies. I really appreciate the Ministry of Economic Affairs for giving me this opportunity to make our research outcomes known to the public.





Hsi-Tseng Chou

Graduate Institute of Communication Engineering, National Taiwan University

Distinguished work is not unachievable if you have selected a right area to pursue. Most things can be succeeded if you can be sufficiently persistent to do them. Keep your mind calm and settled. The world's strongest force is dust, although small, but it has buried all heroes in the history. The most tough is the water, which though looks soft but is all-conquering.

Hsi-Tseng Chou, Professor



Individual Category Industry-Academia Collaboration Award



Reasons for Winning

Dr. Hsi-Tseng Chou, Professor of Graduate Institute of Communication Engineering, National Taiwan University, has undertaken advanced researches on key technologies of high gain antennas for more than 25 years. His research focuses on the technical developments for practical applications, including the basic electromagnetic theories, antenna design methodologies, implementation of antenna design software, and experimental technologies of antenna properties measurements and facilities to provide the potentials of "One-stop Solution Provision" for industries. The high gain antenna technologies, jointly developed in collaboration with National Chung-Shan Institute of Science and Technology (NCSIST), have been successfully applied to the national defense applications and mobile communication experiment platform. Furthermore, through his industrial connections, Dr. Chou has founded a technology-focused industry-academia consortium, which provides a technical support platform to integrate upstream, middle-stream and downstream industries. Through the operation of this consortium, technical supports can be efficiently acquired during industrial development. Dr. Chou has also been dedicated to cultivating industries through innovative patterns of industry-academia cooperation.

Biography

- (1) Education**
- Ph.D. The Ohio State University, USA (1993-1996)
 - M.S. The Ohio State University, USA (1991-1993)
 - B.S. National Taiwan University (1984-1988)
- (2) Experience**
- Professor/Graduate Institute of Communication Engineering, National Taiwan University (2015-present)
 - Professor/Department of Communications Engineering, Yuan Ze University (1998-2015)
- (3) Awards**
- Elected to be IEEE (Institute of Electrical and Electronics Engineers) Fellow (2011)
 - Recipient of IEEE Technical Field Award-Undergraduate Teaching Award (2014)
 - Recipient of "Science/Technology Management Award" from the Chinese Society for Management Of Technology, Taiwan (2014)
 - Recipient of "National Award for Industry Innovation-Key Tech. Elite Award" from Ministry of Economic Affairs, Taiwan (2011)
 - Recipient of "Award of University's Contribution to Industrial Economics" from Ministry of Economic Affairs, Taiwan (2008)

Acceptance Speech

I have devoted my career to academic researches and technical developments in the electromagnetic area for over 25 years. It has also been 18 years since I returned to Taiwan to start my academia life. If my career were considered analogous to a basketball game, the first half should be the period when I worked in Yuan Ze University while the second half should be my current tenure in National Taiwan University. These two schools exhibit totally different nature with regard to academic development and the characteristics of students. In the first half, we significantly focused on the technical development applicable to the industry. We worked diligently, and kept seeking visible opportunities to be recognized. Now, our effort finally pays off. This award undoubtedly marks our performance at that time. I really appreciate my students and my partners for their hard work. On the other hand, the development in the second half will be more diverse and deeper. Based on the built industrial and academic foundation, we will carry out forward-looking academic research featuring industrial technologies, which is worth anticipating. I also hope that everyone in my team can strive like dust. Although small, it is able to cover all the barriers one day.

I am grateful to the jury from Ministry of Economic Affairs for your recognition and support. Your expectations really touch us. For the next ten years, we will keep working hard to touch your heart in return since your expectations have become our promises.





Ministry of Economic Affairs (MOEA)
Joint Award Presentation Ceremony

April 21, 2017





**MOEA strives to promote industrial innovation in Taiwan
to infinity and beyond**



National Industrial Innovation Award (NIIA)
www.niia.tw

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