THE 6th NATIONAL INDUSTRIAL INNOVATION AWARD

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ORIGIN

According to the “Industry Innovation Regulations” in 2010, the Ministry of Economic Affairs has held the “National Industrial Innovation Award of the Ministry of Economic Affairs” since 2011 (hereinafter referred to as the "Innovation Award"). Through the national award selection campaign, we hope to set up a learning model for industries, to converge the energy of industry, academy and research, with “innovation, employment, distribution” as the core value, to pursue a new economic model of sustainable development, to break through the industrial development limitations of our country, and to effectively enhance industrial competitiveness.

The Industry Innovation Awards emphasize on innovation, focusing on the humanities, technology and service energy which create value-added benefits for industries. The establishment of multiple awards respectively rewards the “integration and innovation” and “cross-boundary cooperation” of the industry, academy and research community, and further creates value-added industrial innovation organizations, teams and individual models. In order to encourage the excellent performance of the members in the innovation system, besides general enterprises and organizations, the awards are designed to cover small and medium-sized enterprises, women and young people. To encourage academics to promote industry-academia cooperation, individuals also have incentives for “Industry-Academia Collaboration”. The range covers strategic fields such as Precision Manufacture, Intelligent Technology, Living and Healthcare Technology, Green Energy Technology, Innovative Services, Cultural Innovative and Recreation. It also encourages all sectors to combine the regional characteristics to promote the stage breakthrough achievements and performance of the local industry innovation and development. The “Industry Innovation Alliance Award” will be added to the team category awards to guide and encourage the formation of industry-academia-research team alliance to promote cross-boundary cooperation and innovation.

Industrial development is vital to the sustainable growth of national economy. Every unit invested in research and development, every technical or design talent, and every innovative idea are the key forces that drive industrial innovation. This award provides a credible platform that evaluates innovation competitiveness. Through each campaign, in addition to selecting companies, academic and research institutions that contribute to the industry and make the people feel moved, we expect to guide the industry, academia and research circles to break away from the technology-based thinking through these successful examples of innovation. Also, they can invest in service innovation, aesthetic elements, and then push up the value of the manufacturing in the middle of the smile curve, to achieve the ultimate goal of “Servitization of Manufacturing” and “Technological Service”. The Ministry of Economic Affairs looks forward to not only creating an atmosphere of industrial reform, but also continually stimulating domestic innovation engines through activities that discover innovations and giving credit to industry models. Therefore, all award-winning enterprises, schools, corporations and experts can conduct a rational dialogue and exchange. More importantly, with the mechanism of Industry Innovation Awards, the innovative models of Taiwan industry can be recognized, and we hope that this award can accelerate the transformation of our industry, enhance international competitiveness, and create new value for Taiwan’s industry.

The economy in Taiwan is going through a critical time of rising. In order to promote diverse innovation in the industry, the Ministry of Economic Affairs has edited this special book to share the stories and the innovation competitiveness of the 45 award-winning units. We hope that through the cooperation of all circles, we can transform the critical innovation energy of domestic industry. “Demand drives innovation, and innovation drives industry upgrade.” Let’s make a fresh start and launch the innovation, and together we can create a new blue ocean!

Nomination Catagories

Group	Group Industries
Precision Manufacture	This category includes the intelligent machinery, metal material, electrical and mechanical, machinery, transportation vehicles, automotive electrical components, automatic control, and precision instruments industries.
Intelligent Technology	This category includes the AI, IoT, robots, the semiconductor, IC design, display panel, computer and peripherals, communications and networking, mobile phone and telecommunication equipments, electronic components, software and cloud computing technology industries.
Living and Healthcare Technology	This category includes the new agriculture, medical and biotechnology, healthcare, food, non-metallic materials, chemical, textile and fiber, and glass and ceramics industries.
Green Energy Technology	This category includes the circular economy, 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 platform service, cloud computing services, information services, testing services, logistics and storage, transportation services, legal and accounting, human resources, business services, engineering consulting services, and financial insurance industries.
Cultural Innovative and Recreation	This category includes the cultural and creative, movies and television, digital content and publishing, restaurant and tourism, intellectual properties management, education, and architectural design industries.

Organization Category

- Distinguished Enterprise Innovation Award
  - General Enterprise
  - Small and Medium Enterprise
- Outstanding Enterprise Innovation Award
  - General Enterprise
  - Small and Medium Enterprise
- Distinguished Innovation Award for Academic and Research Institutions
- Outstanding Innovation Award for Academic and Research Institutions

Team Category

- Innovative Trailblazer of the Year
- Model of Local Industry Innovation Award
- Industry Innovation Alliance Award

Individual Category

- Innovative Elite Award
  - General Individual Group
  - Woman Group
  - Youth Group
- Industry-Academia Collaboration Award

Organization Catagories

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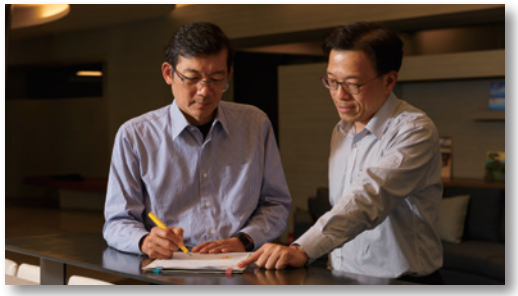
eMemory Technology Inc.

Organization Category
Distinguished Enterprise Innovation Award
(General Enterprise)


Reasons for Winning

Continuous Deployment of Disruptive Innovation for Strengthening its Leadership in the Silicon IP Industry

eMemory Technology Inc. founded in 2000 is the world's top 10 provider of semiconductor Silicon IP, specializing in embedded hard IP cores. eMemory's proprietary technologies issued over 700 patents globally include One-Time Programmable Memories(NeoBit/NeoFuse), Multiple-Time Programmable Memories(NeoMTP/NeoFlash/NeoEE), and PUF-based Hardware Security IP.

To support unique business model, eMemory successfully set up a complete customer-oriented Silicon IP service system which provides 23 foundries, more than 1400 IC design houses and 10 IDMs with superior engineering service quality. eMemory's technologies have been deployed to more than 4,350 product designs and accumulated the shipments of over 24 million production wafers. eMemory technologies are regarded as the most stable and reliable embedded non-volatile memory technologies in the world.

Business Philosophy

eMemory Technology Inc. is dedicated to the development of logic-based non-volatile memory technology. We appreciate the spirit of disruptive innovation, develop technologies with highly competitive advantages continuously, and bring values to global customers effectively.

Key Features

Based on the core value of disruptive innovation, eMemory Technology Inc. has offered a series of widely-used embedded non-volatile memory Silicon IP. Its IP products prevent a complicated manufacuring procedure and thus are easily available on world-wide process platforms for customer uses.

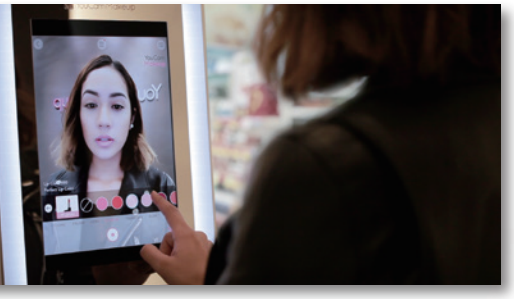
As the pioneer in the Silicon IP industry, eMemory has created a win-win-win situation between foundry partners, IC design customers and itself. Moreover, its systematic operation flow provides a fully customer-oriented flexibility which strengthens its business competitiveness and delineates its brand value. In additon, the alliances with international research institutes and universities enhance the development of new memory technologies and product applications. Comprehensive marketing communication activities, including webinar, technology symposium and workshops, also greatly improve IP adoption rate and thus increase the prenetration rate in different application segments.

Regarding human resource development, eMemory instills the concept of innovation, especially disruptive innovation, into each employee from three aspects: Knowledge, Skill, and Ability. Besides, the publication of a textbook of "Logic Non-Volatile Memory" and joint curriculum in colleges have been making contribution to enhance the engineer competitiveness in Taiwan semiconductor industry.

Company Profile & Business Contact Information

Founded	September, 2000
Core Business	Licensing and technical service of embedded non-volatile memory IP
Chairman of the board	Charles Ching-Hsiang Hsu
Address	8F, No. 5, Tai-Yuan 1st St., Jhubei City, Hsinchu County 30288, Taiwan
Tel	886-3-560-1168
Fax	886-3-560-1169
Website	www.ememory.com.tw

PERFECT 玩美移動 PERFECT Corp.



Reasons for Winning

The World's Leading AI + AR Beauty SaaS Provider

Perfect Corp., is Taiwan's biggest app developer, with over 750 Million downloads and over 200 partner brands globally. Perfect Corp. is dedicated to transforming how consumers, content creators and beauty brands interact together through the use of AI and AR technologies. Leading the technological revolution called "Beauty 3.0" with innovative AI & AR beauty technology. Our experienced team of engineers and beauty aficionados are pushing the frontiers of technology to create the beauty platform of the future – a fluid environment where individuals can express themselves, learn about the latest trends in fashion and beauty, and enjoy instant access to products from their favorite brands.

Key Features

More than 200 brands worldwide are already adopting YouCam beauty AI & AR technologies. Users can instantly try on all these brands virtually in YouCam Makeup. 'Beauty 3.0' is a unique brand and retail business solution, transforming the consumer beauty shopping experience through experiential product trials that drive conversion. The patent pending 'Beauty 3.0' artificial intelligence (AI) and augmented reality (AR) solutions include, AI Product Recommendations, AI Smart Shade Finder, AI Skin Diagnostic, and AI Multi-Color Live Hair Effects. This announcement marks a shift from once traditional retail experiences, to highly personalized and proactive ones, completely reimagining the customer beauty shopping journey for brands, retailers, and customers alike. From face detection to skin tone analysis, our dedicated team of in-house programmers and developers continue to push the boundaries of what is possible in AI, AR, deep learning and beyond.

Business Philosophy

We are dedicated to bringing the most innovative beauty tech to all brands and beauty lovers. Through YouCam Makeup, users can enjoy the latest beauty 3.0 AI+AR technologies and be inspired by beauty trends from the community.

Company Profile & Business Contact Information

Founded	June, 2015
Core Business	Omni-channel Beauty SaaS (Software as a Service) including in-app, instore, web, and SDK: AR Makeup Try on, AI Smart Shade Finder, AI Product Recommendation, In-store Barcode Try on, Beauty Advisor 1-on-1, Live AR for Company-wide Training, Live Streaming for Brands, AI Skin Diagnosis, Live Hair Color, Virtual Accessories Try on, AI In Store Facial Recognition, AR Try on for WeChat Mini Program, AR Try on for Facebook Chatbot.
CEO & Founder	Alice Chang
Address	14F., No.98, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C)
Tel	886-2-8667-1265
Website	www.perfectcorp.com

ACME MACHINERY INDUSTRY CO., LTD.

Organization Category
Distinguished Enterprise Innovation Award
(Small and Medium Enterprise)





Reasons for Winning

Continuous Innovation of Fabric Dyeing Machine Design and Manufacturing Contribute to Environmental Protection

Established in 1985, ACME MACHINERY INDUSTRY has been dedicated to the design and manufacturing of fabric dyeing machines. Adhering to its business strategy—innovation and change, the company strives to achieve product differentiation and market segmentation, which facilitate the sale of its own branded products worldwide.

To encourage product innovation, each of its products is assigned a facial makeup of the Chinese Opera as a logo. Over the past 30 years, all of products have obtained patents from all over the world.

In recent years, ACME has successfully launched its revolutionary product--Intelligent Conveyer Drive Dyeing Machine, which obtained more than 170 patents worldwide. According to Taiwan Textile Research Institute, the new model has been proven to reduce over 65% of water, steam, textile auxiliary, and electricity consumption, and thus cut down 65% of wastewater and carbon dioxide emission. When it comes to the dedication to the environmental protection, ACME is one of the best in the world and the pride of Taiwan.

Key Features

ACME MACHINERY INDUSTRY fosters product innovation and devotes itself to the design of energy-saving products. Upon being successfully developed, each of its products is assigned a facial makeup of the Beijing Opera as a logo. In recent years, the company has launched a revolutionary product--Intelligent Conveyer Drive High Pressure Constant Speed Dyeing Machine (AM-ICD), which features conveyor drive instead of conventional liquor floating. After onsite testing performed by Taiwan Textile Research Institute, the new model has been proven to reduce more than 65% of water, steam, electricity, and textile auxiliary consumption, and therefore cut down 65% of wastewater and carbon dioxide emission. It's a solution to cost reduction, energy conservation, and environmental protection. ACME has achieved an impossible mission, made the dream of green economy come true, and made huge contribution to our planet. AM-ICD was then assigned a green facial makeup as a symbol of "green economy." The product has obtained more than 20 invention patents and utility model patents worldwide with a total of over 170 patent certificates, is one of the best in the world and the pride of Taiwan.

Business Philosophy

With our 3P philosophy: Professional, Practical, and Perfect, ACME MACHINERY INDUSTRY becomes a technology-oriented company which values quality more than quantity. Through continuous innovation, we create a niche in a blue ocean market.

Company Profile & Business Contact Information

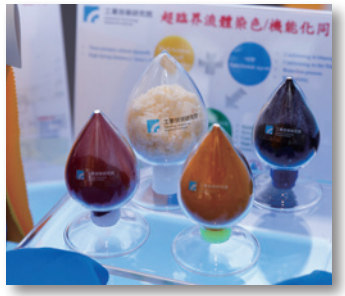
Founded	December, 1985
Core Business	Fabric Dyeing Machines
Chairman of the board	C.L Chang
Address	NO.9, Lane 219, Sec 3, Chung-shing Road, Luchu District, Taoyuan City, Taiwan.
Tel	886-3-3247291~6
Fax	886-3-3247297
Website	www.acmemach.com.tw

工業技術研究院
Industrial Technology Research Institute

Material and Chemical Research Laboratories, Industrial Technology Research Institute

Organization Category
Distinguished Innovation Award for Academic and Research Institutions





Reasons for Winning

Excellent Role Model as the Material Development Pioneer and Actively Promote Industrial Applications

With the support of Ministry of Economic Affairs, Material and Chemical Research Laboratories (MCL), ITRI, has been promoting the development of material technologies in Taiwan. As the pioneer of material R&D and the creator of intellectual assets, it turns the theoretical knowledge about material science into industrial applications and enhances industrial competitiveness.

MCL has been dedicated to the R&D of next-generation electronic materials, green energy materials, high-value chemical materials, and sustainable materials to facilitate the development of emerging industries and enhance the international competitiveness of traditional industries. It speeds up the development of material technologies through groundbreaking research plans and comprehensive technical services and combines strategic partners in industry to enhance Taiwan's international competitiveness.

Key Features

With the decisive and pragmatic attitude, MCL has been playing the role of a crucial partner of Taiwan's technology industry. It sees the problems and needs of the industry and deals with them by developing value chains. It has worked on water treatment, transformation of petrochemical and traditional industries, resource recycling, and renewable energy. Besides, MCL employs its core technologies and integrates the resources of other research centers of ITRI to establish partnership with the academia and leading companies in the industry. By building a platform for innovative application of materials and chemicals, MCL has become an inventor of innovative materials and a promoter of interdisciplinary application, giving fresh impetus to the industry. For instance, it has assisted more than 150 petrochemical and chemical factories to increase their R&D intensity from 0.58% (2013) to 1.22% (2017). Furthermore, over the past three years, it has carried out 26 items of ten million dollars' worth of intellectual property application projects, 527 technology licensing projects, and facilitated the foundation of 7 start-up companies. Over the past ten years, 12 technologies it developed have been presented winners of R&D 100 Awards.

Business Philosophy

We keep track of the latest global trends, needs, and value chain of system design and stay connected with our key accounts and lead users to create new opportunities for the high-value material industry.

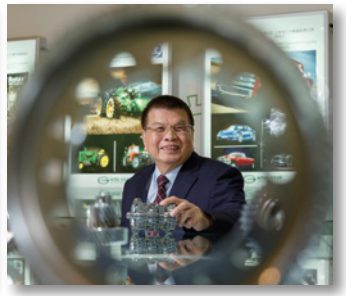
Company Profile & Business Contact Information

Founded	January, 2006
Core Business	Technologies development of next-Generation electronic materials, green energy materials and components, high-value chemical materials, Green and sustainable advanced materials.
Chairman of the board	Wen-Hsiung Liu
Address	195, Sec. 4, Chung Hsing Rd., Chutung, Hsinchu, 31040
Tel	886-3-5913108
Fax	886-3-5280247
Website	www.itri.org.tw

HOTA INDUSTRIAL MFG. CO., LTD.

Organization Category
Outstanding Enterprise Innovation Award (General Enterprise)




Reasons for Winning

Continuous Deployment of Disruptive Innovation for Strengthening its Leadership in the Silicon IP Industry

Since its establishment in 1966, HOTA INDUSTRIAL MFG has consolidated its position as the leading manufacturer of precision auto transmission components. It has been dedicated to meeting all its customers' needs with high-quality products. In 2016, the company joined hands with domestic machine tool manufacturers, automation research institutes, Internet service providers, and R&D institution in universities to develop smart manufacturing technologies. The technologies, which include realtime 100% inspection, the product traceability system, and remote monitoring, give HOTA an edge over its competitors.

By means of the information system and innovative technology, HOTA puts its business philosophy into practice and enhances its management efficiency. On the other hand, it also provides personnel training for the operation of smart technologies while offering a pay raise to employees and improving the working environment. In the future, HOTA will keep on providing high-quality, eco-friendly products and improving the performance of automobiles in pursuit of sustainable development.

Business Philosophy

As the leading brand in manufacturing of precision auto transmission components, HOTA sticks to the highest quality standard and innovation. It is an enterprise that emphasizes professionalism, customer satisfaction, and steady operation.

Key Features

Over the past two years, HOTA has set up a processing and big data integration platform which connects production information to the database. The coverage of data visualization service for the main management, production, factory, and quality assurance supervisors has increased from 50% to 100%, so that the entire production process can be well monitored. Besides, the quality inspection rate has increased from less than 10% to 100%. As for the workpiece traceability, the rate was less than 1 ‰ (only one out of every 1,000 pieces was tagged), and now it reaches 100%. When it comes to organizational innovation, the company has formulated department adjustment strategies to accelerate innovative developments. These strategies include the establishment of Action Departments (Electric Vehicle Mechanism Section, Intelligent Production Section, Intelligent Robot Technology Section, and Network Technology Section), a spin-off technology company (CPS Technical Service Company), and the new personnel training system. HOTA has turned from OEM to ODM and has been able to provide a CPS service business model for the supply chain. It has also attracted more than NT$3 billion of new local investments and made great contributions.

Company Profile & Business Contact Information

Founded	January, 1966
Core Business	1.Transmission Parts/Assy 2.Torque Transfer Parts/Assy 3.Differential Parts/Assy 4.Gear Hobbing Machine 5.Gear Shaving Machine 6.Power Scooter
Chairman of the board	David Shen
Address	No.12, Keya Rd., Taichung Science Park, Taichung, 42881 Taiwan, R.O.C.
Tel	886-4-2569-2299
Fax	886-4-2566-4425
Website	www.hota.com.tw

Gallant Precision Machining Co., Ltd.

Organization Category
Outstanding Enterprise Innovation Award
(General Enterprise)





Reasons for Winning

Develop Precision Process and Intelligent Automation Equipment to Progress with Customers

Founded in 1978 and listed on the Taiwan Stock Exchange in 1998, Gallant Precision Machining (GPM) started out as a manufacturer of mold parts and components for semiconductor equipment. It has been dedicated to lean production and the development of exclusive core technologies. In response to the needs of its clients, the company further engages in developing semiconductor equipment, processing equipment for precision machinery in the display industry, and automation equipment. While coopearting with other world-class comapnies in technology licensing, GPM keeps track of current market trends and builds a GPM smart machinery platform to provide well-rounded solutions for smart manufacturing. In 2018, it won the Smart Machinery Golden Award. With years of operation, its accounts and branch offices spread over Taiwan, China, Southeast Asia, Northeast Asia, and North America.

Business Philosophy

GPM adopts lean management, maximize profits, focus on added value, and seek for innovation and sustainability. We take on challenges in different stages by following the trends and create all win situation for our employees, suppliers, clients, and shareholders.

Key Features

With 41 years of experience and technology development, GPM integrates its top talents and resources in Taiwan and China to build the strongest R&D team and after-sale service platform. It further applies its core technologies to various industries and fields including Industry 4.0, IoT, semiconductor, displays, biomedicine, green energy, artificial intelligence, and smart manufacturing.

With the increasing prevalence of AI, GPM lays great emphasis on innovation skills and establishes Smart System Division, where 50% of the employees engage in R&D. Besides developing and installing smart equipment for internal use, the four departments under the division are also dedicated to developing the smart machinery platform and helping GPM's clients to achieve smart manufacturing.

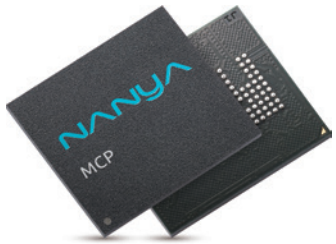
GPM persists in providing the best customized manufacturing equipment. It keeps improving its own technologies and cooperates with leading companies as well as top academic and research institutes domestically and abroad. By providing its clients with high quality products, services, and well-rounded solutions, GPM looks forward to setting a benchmark in the world.

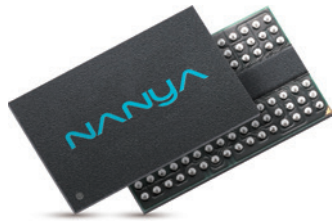
Company Profile & Business Contact Information

Founded	December, 1978
Core Business	Display Industry, Semiconductor Industry, Intelligent Industry
Chairman of the board	Nick Yeh
President	Jason Chen
Address	No.5-1, Innovation 1st Rd., Science Based Industrial Park, Hsinchu, 30076, Taiwan
Tel	886-3-563-9999
Fax	886-3-563-9988
Website	www.gpmcorp.com.tw

Nanya Technology Corporation

Organization Category
Outstanding Enterprise Innovation Award
(General Enterprise)





Reasons for Winning

"Innovation"- NTC plays a key role in propelling DRAM as a critical component driving our societies towards the smart world

Innovation has been the essence of sustainable development for memory industry and DRAM is the core business for Nanya Technology Corporation(NTC). For many years, NTC has invested enormous resources into product and process development. Recently NTC has deployed Taiwan's first 8Gb DDR4 product and become a key component supplier for the cloud and data center market. This year, NTC will introduce a series of LPDDR4/4X products, which makes us an essential partner for mobile devices, industrial grade, and automotive applications.

"We have been focusing on new process technology and new product innovation, and introducing innovation management to enhance the company's creative energy and value creation. At the same time, with a strong teamwork spirit, we continue to elevate manufacturing performance. Our innovation strategy is to establish next-generation DRAM product technology; accelerate product diversity and intelligent production plant; and strengthen intellectual property rights and trade secrets protection." said Dr. Pei-Ing Lee, President of Nanya Technology Corp..

NTC has established a close strategic alliance with our customers, as we continuously optimizing product portfolio to enhance product value and provide solutions and high quality service to customers. As a world class DRAM solution provider, NTC is committed to be the best memory partner for smart world generations.

Key Features

NTC has been specializing in the field of memory products for 24 years, hoping to become the best memory provider for the smart world. Dynamic Random Access Memory (DRAM), which can be applied to smart cities, IoT, and AI, is the key component in the smart era. NTC has developed the 10nm-class process technology and initiated a three-year R&D project.

Recently, NTC has developed the first 8Gb DDR4 in Taiwan, making it one the major providers of the key components in the cloud computing and data center industry. This year, the Low-power LPDDR4/4X series has also been developed and released in the market. NTC has played a crucial role in the memory supply chain of mobile devices, industrial equipment, and automobiles.

Business Philosophy

To become the best memory provider for the smart world.

Company Profile & Business Contact Information

Founded	March, 1995
Core Business	The research, development, design, manufacturing, and sales of Dynamic Random Access Memory (DRAM)
Chairman of the board	Chia-Chau Wu
Address	98F., Nanlin Rd., Taishan Dist., New Taipei City 243, Taiwan
Tel	886-2-2904-5858
Website	www.nanya.com

GRAPE KING BIO LTD.

Reasons for Winning

The Health Supplement Expert that Accompanies You into a Healthier Future

Founded in 1969, GRAPE KING BIO LTD has gone through three major milestones. In the first year of its establishment, Grape King Bio launched Taiwan's first energy drink "ComeBest," which caused a sensation in the market. In 1991, the Grape King Bioengineering Center was founded which allowed the Company to cross over to the Health Food industry. 2010, Grape King Bio underwent an organizational restructuring and re-branding, developing its own smile curve. The Company now not only has the highest fermentation capcity and industry leading research technologies in Taiwan but also multiple International quality certifications.

Taking advantage of its soild business model and long-established brand, Grape King Bio sells its products through various channels in Taiwan thus making it difficult for competitors to catch up. “Technology, Health, and Hope” are Grape King Bio’s core values, and mission is: “to become a health expert that helps take care of the whole family”, therefore Grape King Bio aims to be the health specialist to lead soceity into a healthier future.

Key Features

- In 2019, Grape King Bio opened its “Grape King Biotech Research Institute” which is located at LongTan Science Park. With this new Research Institute, Grape King Bio now has the largest health food material fermentation facility in Taiwan consisting of 80 fermentation tanks with a total capacity of 386 tons.
- Grape King Bio has the largest market share for Probiotics and traditional Chinese mushrooms in Taiwan. It is the largest producer of dry probiotics and also has the longest history for research and development (1996~present). In addition, Grape King Bio also manufactures for more than 50 ODM/OEM domestic clients in Taiwan.
- In 1999 Grape King Bio is the first company in the world to mass produce Antrodia using a 50-ton fermenter.
- Grape King Biotech Research Institute has been recognized globally for its R&D and cultivation of Hericium Erinaceus and Cordyceps Cicadae mycelium. A total of 23 related papers and articles have been published by the Research Institute both locally and internationally.
- Grape King Bio has obtained many local and international certifications such as PIC/S GMP, ISO22000, FSSC22000, ISO/IEC 17025 TAF certification laboratory, NSF GMP, TQF and Halal.
- Grape King Bio’s outstanding R&D and innovations have been awarded 62 International invention exhibition medals from 8 Countries during the period of 2015 to June 2019.

Business Philosophy

With our core values: "Technology, Health, and Hope" and cutting-edge technologies and innovative R&D, GRAPE KING BIO manufactures products which enrich consumer’s lives. GRAPE KING BIO wants to be recognized globally for the outstanding products and ODM services, that they can offer to the health food supplements and functional drinks industry.

Company Profile & Business Contact Information

Founded	July, 1969
Core Business	Health Food Products, Energy Drinks, Specialist Biotech Services, Food and Beverage Manufacturing.
Chairman of the board	Andrew Tseng
Address	No. 402, Sec. 2, Jinling Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)
Tel	886-3-457-2121
Fax	886-3-457-2128
Website	www.grapeking.com.tw

Hair O'right International Corporation

Organization Category
Outstanding Enterprise Innovation Award
(General Enterprise)





Reasons for Winning

Green Innovation Strategy Successfully Creates a Zero Carbon Beauty Leadership Brand

As a green, sustainable and innovative brand, Hair O'right International Corporation has been dedicated to the development of green products. After the world's first Tree in the Bottle Shampoo made its debut in 2010, O'right launched Asia's first certified 100% renewable plastic bottle and renewable plasticpump, which are now used in all of its shampoo and body wash products.

In 2011, O'right released its first carbon-neutral shampoo; in 2018, it successfully obtained the carbon-neutral certificate for its operational practices and nine products. Additionally, the company further promises to fulfill zero waste manufacuring in its factories by 2020 and to fully utilize renewable energy by 2025. O'right has cooperated with various industries to put circular economy into practice and develop carbon-neutral products, which makes it the number one zero carbon beauty brand in the world.

Key Features

O'right has come a long way since it embarked on a green journey thirteen years ago to became the world's first zero carbon beauty brand today. In 2012, O'right established its Green Headquarters, equipped with energy-efficient facilities and green management from environment to employees.

With green business on the rise, O'right reached a 35% annual sales growth in 2018, hitting a record high in a decade. The green company is also riding high on booming international sales in Europe and the Middle East. With the Tokyo 2020 Games aiming to become the most sustainable yet, O'right has made Japan its next stop for its expansion into the international market.

In 2018, O'right obtained the carbon-neutral certificate for its operational practices and nine products. Additionally, the green brand joined RE100, committing to use 100% renewable energy by 2025 and become the first zero carbon beauty brand in the world.

Business Philosophy

We believe that even a small change can make a difference in the world. Our employees and suppliers are joining hands to reach the goal; that is, to become the role model of green and sustainable innovations.

Company Profile & Business Contact Information

Founded	March, 2002
Core Business	Shampoo, Body Wash, Scalp Care, Facial Skin Care Products
Chairman of the board	Steven Ko
Address	No.18, Gaoping Sec., Jhongfong Rd., Longtan District, Taoyuan City 32544, Taiwan
Tel	886-3-411-6789
Fax	886-3-411-6779
Website	www.oright.com.tw

國泰人壽
Cathay Life Insurance

Cathay Life Insurance Co., Ltd.

Organization Category
Outstanding Enterprise Innovation Award (General Enterprise)




Reasons for Winning

The Pioneer of Sustainable Insurance, Guard the Happiness of Every Family

Cathay Life Insurance Co., Ltd. was founded more than half a century ago. To adapt to the changes of Taiwan's economy, society and customer awareness, Cathay Life Insurance keeps providing innovative products and services which satisfy its clients' needs in each stage of life. With the development of modern technology, it has integrated IoT, blockchain, and AI technologies, connecting online and offline customer service to establish a comprehensive, client-based service system which covers Cathay Box, Mobile Insurance, Automated Underwriting/ Claims Processing, Smart Customer Service, and Cashless Hospitalization Service.

Key Features

Cathay Life Insurance has been promoting digital and mobile services. It is the first company to launch Mobile Insurance services in the insurance industry and set up a comprehensive automated insurance platform while obtaning several patents in Taiwan. With its paperless one-stop service system, Cathay Life Insurance not only creates enhanced customer experiences but also puts its green spirit into action. In addition, Cathay Life Insurance is the first to tie up with hospitals to provide “Cashless Hospitalization” Service. Through connected information systems, policy holders can be admitted to the network hospital with no deposit and no payment required upon discharge; instead, the medical bill will be settled directly by the insurance provider. This service relieves the stress on the patients who usually need to arrange money for hospitalization. Adopting a customer-centric approach, Cathay Life Insurance pursues excellence and innovation to improve customer experiences. It has also employed financial technologies to automate workflow and build a more effective sales system for salespeople, service staff, and marketing planners to know their clients better and maintain its leading position in Taiwan's insurance industry.

Business Philosophy

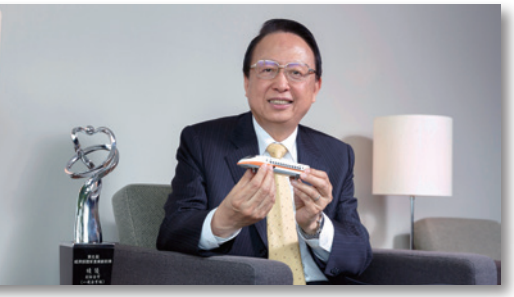
Cathay Life Insurance sticks to four business philosophies articulated by Founder Tsai Wan-lin. He hoped each staff could strive for the sustainable development and growth of the company on the existing basis. The four philosophies are:
Be down-to-earth and hungry for excellence.
Follow business ethics and conscience.
Value customer rights and social responsibilities.
Enhance employee benefits and shareholder's interests.

Company Profile & Business Contact Information

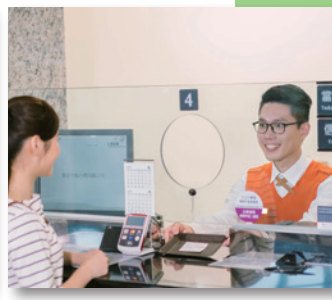
Founded	October, 1962
Core Business	Cathay Life Insurance is dedicated to the sales and services of life insurance.
Chairman of the board	Huang Tiao Guei
Address	No. 296, Sec. 4, Ren’ai Rd., Da’an Dist., Taipei City 106, Taiwan (R.O.C.)
Tel	886-2-2755-1399
Fax	886-2-2704-1485
Website	www.cathaylife.com.tw

Taiwan High Speed Rail Corporation (THSRC)

Organization Category
Outstanding Enterprise Innovation Award
(General Enterprise)







Reasons for Winning

Continuously introduce innovative technology to provide premium travel services

Taiwan High Speed Rail (THSR), a railway line that passes through 11 cities and counties, 76 townships along the western corridor of Taiwan. It has a total of 12 stations, providing passengers with punctual, safe, convenient, comfortable, and high quality of transportation services. Since its operation in January 2007, THSR has established a distinguished record by carrying more than 500 million passengers in 2018.

Taiwan High Speed Rail Corporation (THSRC) embraces the philosophy of achieving sustainable development and constant progress. It adheres to the five core values of: "Discipline, Integrity, Efficiency, Innovation, and Sensibility," and four attrubutes of : "Real, Progessive, Passionate, and Premium," which helps to shape its corporate culture. With the guiding principle of “Go Extra Mile” and to keep pace with the times, THSRC has been introducing innovative technologies to meet customers' diverse needs and make modern life even more convenient.

Business Philosophy

THSRC strives to be “the platform for advancement and enjoyment,” not only provides passengers with high-quality services, but also improves customer satisfaction and fulfills corporate social responsibility.

Key Features

Despite considerable challenges during construction, THSR line was finally completed with the help from international team and joined the transport network of western Taiwan on January 5, 2007. It provides the most secure, punctual, comfortable, and convenient transportation services to the public.

Winning the trust, support and positive comments from domestic and international passengers, THSRC was officially listed on the Taiwan Stock Exchange on October 2016 and welcomed the 500 millionth passanger in 2018. Since its operation, THSRC has devised plans for better customer experiences in purchasing tickets through ticket windows and ticket vending machines in all HSR stations, 24 hours online booking via Internet, convenience stores (more than 10,000 stores), and T Express mobile ticket purchasing app, etc., so that passengers can easily book tickets, make payments, and collect tickets. THSRC keeps introducing innovative technologies to promote smart transport and digital services (such as mobile payment and THSRC membership TGo) to enhance the operation safety and the efficiency of intelligent decision-making. In recent years, THSRC has cooperated with domestic research institutes to develop the required parts for the operation of high speed railway system and strive to create business opportunities and prosperities of “localization for the railway industry” with Taiwan local companies. It also cooperates with cross-industrial companies for launching " T Holiday" package programs to promote Taiwan tourism and held a series of events, such as Money Raising Campaigns for Underprivileged Children, Internship Project, Beach Cleanups, Smiling Train Program, Blood Donation Campaigns, and Disaster Relief Program. Finally, THSRC strives to incorporate arts and cultural elements into its stations, to achieve the goal to be “the platform for advancement and enjoyment.”

Company Profile & Business Contact Information

Founded	May, 1998
Core Business	The operation of high speed rail and passenger services
Chairman of the board	Y.C. Chiang
Address	13F., No. 66, Jingmao 2nd Rd., Nangang District, Taipei City 11568, Taiwan (R.O.C.)
Tel	886-2-8789-2000
Fax	886-2-8789-3000
Website	www.thsrc.com.tw

Shi-shang Enterprise Co., Ltd.





Reasons for Winning

Create a Cultural Creative Museum Souvenir Store with Ancient Creature Remediation and Repair Skill&technique

Established in 1997, Shi-shang has the rare Skill&technique for the repair and restoration of ancient creatures. With meticulous attention to details and professional techniques, the company is able to turn fossils into artworks. It has earned a worldwide reputation and won its clients' trust due to its professional competence and prudent attitude. Steadily, it opened up a blue ocean market of ancient creatures.
In addition, Shi-shang has also set up cultural and creative chain stores—" Shi-shang Natural science shop", which incorporates collections, research, exhibition, and education. Visitors are able to realize the goal of "taking the museum home." This perfect combination of commerce, science, and art has broken a new ground for the cultural and creative industry.

Key Features

Shi-shang focuses on its own professional skills and crosses over to differnet fields gradually. At the beginning of its establishment, the primary services were fix and repair, restoring, and displaying specimens of ancient creatures. Then, Shi-shang was commissioned by museums in Taiwan and China and fossil collectors to fix and repair and restore fossil specimens.In the meantime, it started to diversify its operation by developing science education chain stores, engaging in exhibition curating, developing popular science teaching aids, and acting as an agent of toy brands. Shi-shang “Natural Science shop”, a diversified culture and creative store where visitors might feel as if they were in a museum, is one of the major sources of Shi-shang revenue. Visitors can learn about the knowledge of science and paleontohogy when shopping.
With its distinctive brand, Shi-shang can be seen in many national museums and department stores now. It also has the capability of mall property management, responsible for recruiting vendors for Taipei Zoo, National Taiwan Science Education Center, National Museum of Marine Science and Technology, and Lanyang Museum.
Founded more than 20 years, Shi-shang has established Shi-shang “ Natural History Museum”, where tons of thousands of mineral and fossil collections as well as years of research results published in Science, Natural Magazine, are displayed for every ancient creature lover.

Business Philosophy

Shi-shang shows “concern for the earth, care about humans, support academy, and promote popular science”. In the future, we hope to build a science education platform and discover the beauty of nature anywhere.

Company Profile & Business Contact Information

Founded	August, 1997
Core Business	Shi-shang Ancient Creature Center, Shi-shang Natural History Musem, Shi-shang Natural Science shop and Popular Science and Creative Curating Service
Chairman of the board	Max Wang
Address	4F., No.212, Sec. 2, Zhonghua Rd., Tucheng Dist., New Taipei City 236, Taiwan
Tel	886-2-2268-5066
Fax	886-2-2268-6020
Website	www.shishang.com.tw

Taiwan Creative Industry Development Co., Ltd.

Organization Category
Outstanding Enterprise Innovation Award (General Enterprise)





Reasons for Winning

Integrating “Conference, Exhibition, Performance, and Retail” to Build the Huashan Creative Hub

In 2007, Taiwan Creative Industry Development Co. Ltd undertook the ROT project of Huashan 1914 Creative Park. They have not only restored the previously abandoned warehouses, they have also taken great effort to develop communities, build platforms, and advance industries. These efforts have spawned a new appreciation of exhibitions, interdisciplinary collaboration, as well as the development of Taiwan’s creative industries.

Huashan 1914 boasts four main features: conference, exhibition, performance, and retail, and encourages the seamless intertwining of retail and exhibition. This model has made Huashan 1914, a former industrial site full of cultural heritage, now a park enjoyed by everyone. It is a stage where cultural stars gather, where Taiwanese creatives exchange with global brands, and most of all - an internationally renowned flagship for Taiwan’s cultural creative industry.

Business Philosophy

With the motto “Gather the best people, their ideas and their craft, Huashan is always a creative stage” and our main features “conference, exhibition, performance, and retail”, Huashan 1914 is a cultural creative platform for Taiwanese brands.

Key Features

Taiwan Creative Industry Development Co. Ltd and the Council for Cultural Affairs (now the Ministry of Culture) signed a contract (Huashan ROT project) in 2007 to undertake the restoration and management task of Huashan 1914 Creative Park based on the public bidding process of Statute for Promoting Private Participation in Public Construction. Huashan 1914 Creative Park is positioned as “the flagship base of Taiwan’s cultural creative industry”. There were three different phases, “restore, populate, and activate”, “explore the creative themes” and “Creating opportunities for meaningful encounters”, it has become the most important creative stage in Taiwan. Among the operational innovations, the company's original "conference, exhibition, performance and retail" model, from the first stage of independent store and exhibition, "store is store; exhibition is exhibition" and then moved forward to the second stage, "there are exhibitions in the store; there is retail in the exhibition" and advanced to the current "store and exhibition common strategy" business model. In addition, efforts were put into the cultivation of cross-disciplinary creative talents in production, academia and research, market development of the special exhibitions, etc. Innovative strategies and techniques were tested to advance our cultural and creative industries, and make Huashan the best window for Taiwan's creative industry to communicate with the whole world.

Company Profile & Business Contact Information

Founded	June, 2007
Core Business	We operate time, space, creativities, stories, sensation, and achieve the brand.
Chairman of the board	Jung-Wen Wang
Address	No. 1, Sec. 1, Bade Rd., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)
Tel	886-2-2358-1914
Fax	886-2-2358-1165
Website	www.huashan1914.com

EirGenix, Inc.

Organization Category

Outstanding Enterprise Innovation Award (Small and Medium Enterprise)

Reasons for Winning

Proprietary Biologics Process Technology, Performance-Driven Biologic Drug Development

EirGenix, Inc., a leading biopharmaceutical company based in Taiwan, is focused on the development of biological products and providing services as a Contract Development and Manufacturing Organization (CDMO). As a CDMO, EirGenix possesses the core competencies in Chemistry, Manufacturing, and Control (CMC) of biopharmaceutical products, and offers full-scope services from cell line development to GMP manufacturing for both mammalian and microbial cells.

The company has recently opened its new commercial mass production facility in Zhubei, which will become Taiwan's largest mammalian cell GMP production facility once it has expanded to its planned capacity of 12 x 2,000 L single-use bioreactors. Concurrently, EirGenix is strongly focused on the development of its own biological product pipeline, with a strategic emphasis on biosimilar development of HER2-family biologics using its advanced reverse engineering technology. As of now, EirGenix's product pipeline consists of seven biopharmaceutical products: 4 biosimilars, 1 antibody drug conjugate (ADC) product, 1 novel biologic, and 1 multi-functional carrier protein for vaccine production. In a matter of a few short years, EirGenix has gained significant attention on the international stage. EirGenix has already been recognized with multiple awards won in Japan and Singapore, and has been honored as one of Deloitte's Technology Fast 500 Asia Pacific companies for two consecutive years.

Business Philosophy

EirGenix, Inc., a sustainable corporate, has three major lines of businesses: 1.Contract Development and Manufacturing Organization (CDMO) of Biopharmaceuticals; 2. Biosimilar Development; 3. Development and manufacturing of niche and novel biopharmaceuticals.

Key Features

EirGenix has made significant strides with its product development. The company's leading product, its Trastuzumab biosimilar EG12014/EGI014, is currently undergoing global Phase III clinical trials, and is on its way in recruiting 800 breast cancer patients. On April 29, 2019, EirGenix secured a global licensing deal for EG12014/EGI014 with Sandoz AG, the generic and biosimilar division of Novartis. When EG12014/EGI014 is officially launched on the market, EirGenix aims to increase patient access to a more affordable alternative to its originator drug Herceptin, but with the same efficacy & safety as the originator.

EirGenix is also making its way to become a major global player in the biopharmaceutical industry. So far, the company received its accreditation certificate as a foreign drug manufacturer from Japan's Ministry of Health, Labour and Welfare in 2017, was awarded with Asia's Best CMO 2018 and Bioprocessing Excellence Award (Taiwan) 2019 by IMAPAC Singapore. EirGenix is expecting approval from Japan's PMDA upon their inspection later this fall, and also hopes to achieve approved inspections from EU's EMA and U.S. FDA in the following two years. With growing international recognition and accreditation, EirGenix will undoubtedly secure more contracts with biopharmaceutical companies abroad, thus further promoting Taiwan's biopharmaceutical industry in the global market.

Company Profile & Business Contact Information

Founded	December 21, 2012
Core Business	Contract Development and Manufacturing Services of Biopharmaceuticals; and product development and manufacturing of biosimilar, niche & novel biologics.
CEO and President	Lee-Cheng (L-C) Liu
Address	No. 101, Lane 169, Kangning St., Xizhi Dist., New Taipei City 22180, Taiwan (R.O.C.)
Tel	886-2-7708-0123
Fax	886-2-7708-1666
Website	www.eirgenix.com

SPACE MAGIC 非卡空間魔法

FERRO-CARBON ENT.CO., LTD.

Organization Category

Outstanding Enterprise Innovation Award
(Small and Medium Enterprise)

Reasons for Winning

Creating Home Design Possibilities with Suction Cup Application

Founded in 1989, FERRO-CARBON ENT.CO., LTD started out as a manufacturer of construction tools for export to European and American markets. The self-owned brand "FECA" adds in aesthetic and innovative functions into original industrial suckers, to provide a stylish and simple design product choice for home life. FECA products are waterproof, nail-free, and reusable, making it easy for users to get started and create endless possibilities for home design. FECA has become a world-famous brand with more than 400 counters worldwide, and is sold to more than 40 countries including Taiwan, China, Singapore, South Korea, Japan, Philippines, India, Malaysia, Australia, Iran, Russia and Belarus. The brand mission of FECA is “the convenient life provider”, promoting the design and application of the sucker into the life, and is determined to become the world's most advanced and innovative vacuum application technology leader.

Key Features

Tooling product Department

Provide diverse and most complete items of our products in construction tooling industry. We research and development the round hole cutting position, supplementary drill set using patented technologies such as aqueduct and water-locking. The core strengthening technology capabilities are extended to various instrument products.

Household product Department

From industrial suction cups to exquisite household suction cups, Ferro-Carbon successfully extended their core technology of industrial suction cup. We are now providing our customers more diverse and complete choices of household products. Owning the key technology, the suction cups can absorb on rough and airtight surface, and the suction valve allows it to disassemble quickly, etc. We emphasized on product patent and technology oriented.

Business Philosophy

With the business philosophy of “fine, honest, innovative and practical”, the FERRO-CARBON ENT.CO., LTD breaks through the industrial transformation and brand innovation. In the future, the company will continue to pursue excellence and create business opportunities of “common good”, “common prosperity” and “sharing”.

Company Profile & Business Contact Information

Founded	April, 1989
Core Business	Suction Cups, Building Tools, Diamond-tipped Saws, Glass Cutters, Diamond Drilling Bit,Tile Cutting Tools, Trowels Floats, House storage and Organization, Standless Steel Racks
Chairman of the board	Steve Chen
Address	No. 20, Jing 1st Rd., Wuqi Dist., Taichung City 435, Taiwan (R.O.C.)
Tel	886-4-2659-5889
Fax	886-4-2659-5882
Website	www.feca.com.tw

乾唐軒 ACERA

ARTCERA CORPORATION

Reasons for Winning

Combining Western Art with Eastern Aesthetics, the Interpretation of New Concept of Ceramics.

Founded in 1986, ACERA was initially replicating Tang Tri-Color Glazed Ceramics for business, combing the craftsmanship of Tang Tri-Color Glazed Ceramics and Koji Ceramic, ACERA registered the "TANGCAI" brand. Breaking through the traditional Tang Tri-Color Glazed Ceramics and blending traditional glaze and western inkjet technique, it presents the modern eastern noble ceramic art style, and combines the auspicious theme design with the relief technique to develop medals, wall decorations and other quantifiable ceramic products suitable for gift market.

In 1998, with the patented technology of "coated substrate with far-infrared radiation effect", ACERA designed a series of lifestyle ceramic products and branded as "LIVEN" to bring consumers a healthy, quality life and different lifestyle experiences. ACERA condenses the creativity of design talents from the East and West, applying global fashion elements, gives ceramic works a new life and artistic value, and breaks through the concept of ceramic application and reinterprets the artistic conception of the times.

Key Features

With the core value of “art, environmental friendly, wellness and innovation”, ACERA combines traditional ceramics crafts with patented technology, aesthetics and health awareness, innovates and develops a personal daily-use ceramic portable mug which leads the industry. It also entrusted the scientific research organizations to carry out the scientific demonstration of the material of LIVEN ceramic products, and the research confirmed that the material can enhance the flavor of water, and make it more suitable for human drinking, and also help plants growth. The brand connects the sensory experience with the product characteristics, provides the deep connotation with quality service and store environment. It actively expands the product and service to international market with marketing promotion. ACERA products currently sell to Taiwan, China, Italy and the United State. The company introduces the electronic business application systems which quickly transmits information and intelligence, and carries out the overall information evolution process to improve decision-making and management efficiency. For long term development of the enterprise, ACERA invested and partnered up with Hangar Design Group and ITRI Innovation Technology to facilitate the enterprise development.

Business Philosophy

The company's core business philosophy is "Respect Nature and Cherish All".

Company Profile & Business Contact Information

Founded	September, 1986
Core Business	The research, design, production and sales of lifestyle ceramic products
Chairman of the board	Chun-Ming Yu
Address	No.356, Ciwen Rd., Taoyuan Dist., Taoyuan City 330, Taiwan
Tel	886-3-355-9201
Fax	886-3-326-9016
Website	www.acera.tw

財團法人車輛研究測試中心
Automotive Research & Testing Center

Automotive Research & Testing Center

Organization Category
Outstanding Innovation Award for Academic and Research Institutions

Reasons for Winning

Dedicated to R&D, Verification and Guidance to Promote the Taiwan Vehicle Industry

Automotive Research & Testing Center provides R&D, verification and guidance services to support Taiwan's industrial upgrading. ARTC completely devoted to invests in the development of Advanced Driver Assistance Systems (ADAS) and electronic control systems of electric vehicle, and developing 49 riveting technologies, which have been transferred over 13 technologies to 21 domestic manufacturers and in 2016, the first case of ADAS new ventures had good sales performance. In 2018, it achieved automotive experience on the road and formed an industry alliance to press ahead domestic autonomous vehicle road testing.

For technical verification, ARTC provides complete testing and verification services in Taiwan, and has been accredited by domestic government and international vehicle manufacturers (GM/FORD/FCA/Harley, etc.). Furthermore, it , successfully transcends vehicles, aviation, and railway industry. ARTC also guided 380 manufacturers to carry out product improvement, assisting the government to promote 10 cases of electric vehicle pilot run project, effectively improving the competitiveness of Taiwan's automotive industry.

Key Features

ARTC segments innovation goals into three distinct categories - technology research and development, verification service and social responsibility. Forward research on three main axes: Automated, Connected and Electrified. It develops 49 riveting technologies which have been transferred over, 13 technologies to 21 domestic manufacturers. ARTC also awarded as Merit Trailblazer Award from the Ministry of Economic Affairs, Technical Achievement Award and National Invention Award many times. The verification service combines 12 laboratories and international-level proving ground to provide integrated innovative testing services to assist in the upgrading of the vehicle, component and vehicle electronics industries. It also has been transcended aviation and railway industry and recognized by the Civil Aviation Authority of Taiwan (CAA) and the Federal Aviation Administration (FAA). In addition, it not only assisted the government to promote 10 cases of electric vehicle pilot run project, driving to build 1,073 charging stations, counseling 98 companies over 135 cases for product improvement, but also forming the first domestic autonomous vehicle industry alliance and helping build Taiwan's first autonomous vehicle test site. It enhances the development of Taiwan's electric vehicles and autonomous vehicle industries. In addition, it contributes to society with long term vehicle knowledge sharing, and public services of promoting vehicle safety, and talent cultivation.

Business Philosophy

For the vision of "The pioneer of technical innovation & knowledge services for vehicles", we devoted to establish the independent key technologies and improve testing capabilities to become the strongest support for Taiwan's industry.

Company Profile & Business Contact Information

Founded	September, 1990
Core Business	The professional automotive technology R&D and testing organization assists the government in promoting policy and regulation research, and facilitating the upgrading of the automotive industry.
Chairman of the board	Ching-Chiu Liao
Address	No.6, Lugong S. 7th Rd., Lukang, Changhua County 50544, Taiwan (R.O.C.)
Tel	886-4-781-1222
Fax	886-4-781-1168
Website	www.artc.org.tw

Team Catagories

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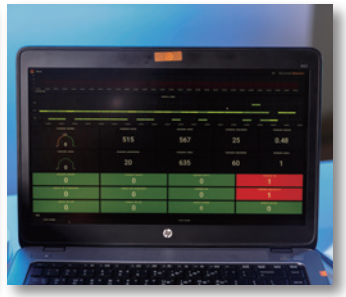
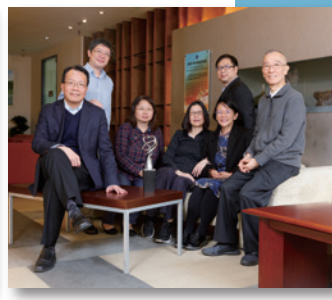
Smart System Institute,
Institute for Information Industry (SSI/III)

The Team of Smart IIoT(Industrial Internet of Things) Solution

Smart IIoT Solution





Reasons for Winning

The position of III is perceived as “Digital Transformation Enabler” by integrating the role of digital nation think tank, talent cultivation, and research and development of digital economy. The Organization has developed the platform with national level resources associated with digital innovation and entrepreneurship.

The Smart IIoT Solution is the result of research and development of the Team of Smart IIoT Solution in response to the government's policy of “Smart Machinery”. It takes intelligent application of IIoT as its research and development direction, and is based on IIoT, NIP(National IIoT PaaS) IoT cloud platform and wearable technology. This solution is highly open and replicable. So far, it has been applied in the Hand-Tool industry, Textile industry, Machine-Tool Industry and other industries. It is expected that intelligent application service ecosystem of IIoT will accelerate industrial framework and expansion in the near future.

Key Features

The Smart IIoT Solution is suitable for small and medium-sized enterprises (public cloud) and large enterprises (private cloud) environments. It is helpful to connect the independent systems within enterprises and support the digital transformation of enterprises.It can also replicate and spread to other industries, thus speeding up the establishment of Taiwan IoT industry ecosystem.

The international/national IIoT platform developed by this team is the first international self development open cloud platform in Taiwan.

It has been designated by the Ministry of Economic Affairs as a NIP(National IIoT PaaS) IoT cloud platform, which has been deployed by more than 100 enterprises so far.The team also works with other industry specialists to co-create DFSI(Domain Focused Solution Integrator) companies and SaaS(Software as a Service) cloud application solutions. As a result, it is expected that more solutions and deployed cases being developed, as well as the willingness of more enterprises to use them.

In the future, the team will continue to use the co-operative platform of the Smart Machinery Project to promote Smart IIoT Solution, so as to enhance the smart manufacturing energy of various industries in Taiwan. The team will also replicate the smart manufacturing model to IoT in manufacturing industry, mechanicalindustry, energy industryand other Internet of Things ecosystems, and continue to expand the overall ecosystem scale.

Words from the Team Leader

We have broken through the past pattern of Technology Development Program(TDP) for Nonprofit Research Organization. Instead, we work with enterprises to co-create and develop an international IoT cloud platform. The Smart IIoT Solution combines industrial IoT networking technology and remote maintenance technology in order to build a high-value industrial ecosystem of the IoT and lead the industry towards smart manufacturing.

Company Profile & Business Contact Information

Organization	The Team of Smart IIoT(Industrial Internet of Things) Solution/ Smart System Institute, Institute for Information Industry (SSI/III)
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	886-2-6607-3100
Fax	886-2-6607-3501
Website	www.iii.org.tw

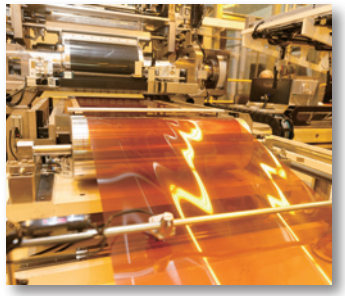
工業技術研究院
Industrial Technology Research Institute

Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute

Team Category
Innovative Trailblazer Team Award

Additive Method for Fine-line Circuits in Green Manufacturing Technology Team

Gravure Offset Printing and Laser Induced Metallization Technology and its Application



Reasons for Winning

Taiwanese manufacturers are the major suppliers of electronic circuit products in the world. In response to the development trend of micro-multi-functionalization of electronic products and tightening of global environmental protection policies, "circuits miniaturization" and "green manufacturing" have become an urgent need for the industry to break through.

The “Additive Method for Fine-line Circuits in Green Manufacturing Technology Team” of Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute has integrated talents in the fields of mechanical, information and communication, and chemistry. They successfully established the world’s leading Full Additive Method for Fine-line Circuits and Laser-Induced Metallization Platform Technology to achieve the goal of process simplification, green, miniaturization, and three-dimensional circuits. Furthermore, they assist domestic industry, academic, and research institutes to develop innovative green electronic products and applications. Their innovation drives for industrial upgrading and transformation, allowing the domestic industries to keep ahead of the competitors with innovative leading technologies.

Key Features

“Green manufacturing” is their policy for sustainable business management; “circuits miniaturization” is a necessary means for the industry to enhance competitiveness. At present, Taiwan's circuits production technology still relies on traditional lithography process, which requires significant reduction in energy and material consumption. Moreover, the line width cannot be further reduced during the wet process, and it becomes the biggest technical bottleneck for industrial breakthrough. Through cross-disciplinary integration and development, the team successfully constructs the Full Additive Method for Fine-line Circuits Manufacturing Technology, which enables the circuits production using catalyst material patterning through printing and laser, and following by metallization processes through induced catalyst to perform copper deposition. Compared with the traditional lithography technology, the circuits line width can be reduced to 3 μm, the energy saving and waste reduction efficiency is increased to more than 80%, and a three-dimensional circuits can be formed. The related technology is introduced to the domestic leading industry to establish a production line and the technology is transferred to assist domestic manufacturers to found new companies. In addition, it builds the foundation of Taiwan’s manufacturing through international cooperation that connects foreign advanced materials and sensor technologies.

Words from the Team Leader

Based on industrial demands and backed by innovative technologies, we will create a new blue ocean for Taiwan’s industry.

Company Profile & Business Contact Information

Organization	Additive Method for Fine-line Circuits in Green Manufacturing Technology Team/Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute
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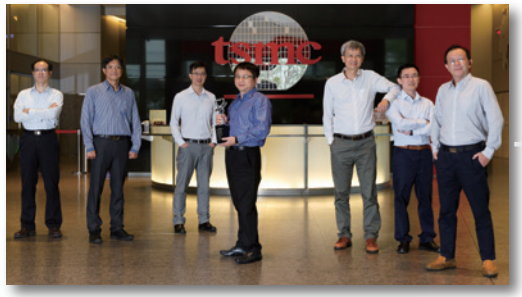
Fax	886-3-582-0043
Website	www.itri.org.tw

Taiwan Semiconductor Manufacturing Company, Ltd.



Advanced Tool and Module Development Division II

Leading-edge Atomic Layer Process Technology Development

Reasons for Winning

TSMC's team, "Advanced Tool and Module Development Division II", specializes in advanced semiconductor process development, responsible for the research and development and introduction of process technologies such as 16 nm, 10 nm, 7 nm, 5 nm and 3 nm mass production. To accelerate Moore's Law, providing customers with the world's top wafer manufacturing services is their top priority. Over the past five years, the team has successfully introduced four atomic layer process technologies and applied them in a variety of applications for deposition, etching, cleaning and surface treatment of different materials, totally 17 innovative applications. The team not only successfully introduced these atomic layer process technologies into the mass production of 16 nm, 10 nm, and 7 nm generations, it also advanced the development progress of the 5 nm generation, and it is expected to start risk production early next year; It enables the research and development of the 3nm generation to be carried out smoothly.

Key Features

In the most advanced semiconductor processes, chip performance often tradeoff with product yield and reliability. We developed the most critical technology to overcome the enormous challenges faced by the continued shrinkage of semiconductor components and circuits. Our strategy is to focus on the most advanced “atomic layer control” processes to build superior mass production capabilities and vast intellectual property rights, and to strengthen the absolute advantages in semiconductor foundry business. We have developed a variety of new atomic layer processes, including atomic layer deposition (ALD), atomic layer etching (ALE), atomic layer treatment, and atomic layer cleaning. These new processes can resolve the tradeoff between component performance, product yield and component reliability. It creates larger process window and enables the extension of Moore’s Law. With this technology breakthrough, we have successfully developed 16nm, 10nm, 7nm, 5nm and 3nm nodes and ensured TSMC technology leadership. In the meantime, we have also established partnership with vendors and customers. Through this partnership, we can overcome the challenges from process equipment and materials, and real time assist customers to fix design weakness to develop more valuable and competitive products.

Words from the Team Leader

Constant dripping wears away a stone. Innovation comes from the will like the dripping water; as long as constantly practices, there must be a breakthrough!

Company Profile & Business Contact Information

Organization	Advanced Tool and Module Development Division II/ Taiwan Semiconductor Manufacturing Company, Ltd.
Team Leader	Simon Jang, Senior Director
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Website	www.tsmc.com

工業技術研究院
Industrial Technology Research Institute

Information and Communications Research Laboratories, Industrial Technology Research Institute

ESL SoC Design Team

ESL Design Solution for
Future System-on-Chip Design

Reasons for Winning

The talented team members in “ESL SoC Design Team”of Information and Communications Research Laboratories, Industrial Technology Research Institute, come from a variety of professional fields and own diverse expertise in software, hardware, architecture, and design automation.

In order to improve the energy of the chip design technology and system research and development in our country, ESL SoC Design Team began to devote to the development of a new generation of Electronic System Level (ESL) technology ten years ago. They endure great hardships to establish the core independent technologies for the semiconductor industry in our country, and through the joint cooperation with domestic industry, academic and research units, they research and develop actual products, so the technology is matured and its value is created, which has made great contributions to the technological innovation and industrial upgrading in our country.

Key Features

Power consumption and overheating are the biggest challenges in mobile electronics and their system chip design. Due to the increasing complexity of system software and hardware design, traditional design simulation methods failed to help chip designers to quickly identify the problem of power consumption and overheating. The industry requires an innovative breakthrough technology to solve this problem. The ESL (Electronic System Level) technology guides the industry with a new direction by upgrading the Design Abstraction Level. The “ESL SoC Design Team” of the Information and Communications Research Laboratories, Industrial Technology Research Institute has added new features such as timing and current analysis, and heat dissipation which make ESL technology more complete, and system chip design and simulation analysis easier, faster, and more comprehensive. Under the wonderful design of the " ESL SoC Design Team" of the Information and Communications Research Laboratories, Industrial Technology Research Institute, the improved ESL technology not only can solve the problem of power consumption and overheating of mobile devices, but also can employ in the most popular artificial intelligence chip design. They help the industry quickly analyze and develop the system architecture of the deep learning processor chip, which will be more widely used in the future.

Words from the Team Leader

“Mission must always be accomplished.” and “There are no impossible challenges.” are our working principles.

Company Profile & Business Contact Information

Organization	ESL SoC Design Team/Information and Communications Research Laboratories, Industrial Technology Research Institute
Team Leader	Juin-Ming Lu, Division Director
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Altek Corporation

Medical Business Unit

High-end Medical Product Research, Development & Manufacturing

Reasons for Winning

Altek started its medical business in 2008 and started shipping premium blood glucose meters for global tier-1 customer at the end of 2011 after 3 years of rigorous development. In 2012 Altek started the Artificial Pancreas development project with its major medical partner.

After years of investments, Altek is able to establish a world class medical development team with proven record on design, verification, manufacturing, quality control, process management and document control. Altek will continue its vision - better life for everyone - by bringing more innovated medical products to the market.

Key Features

Altek entered medical business in 2008 and began shipping premium blood glucose meters for global tier-1 customer at the end of 2011 after 3 years of rigorous development. In 2012, Altek started the Artificial Pancreas development project with its major medical partners and the product entered clinical study phase in 2018. In 2013 Altek also started the Endoscope related products development and manufacturing. After years of investments, by leveraging its design expertise in miniaturization, wireless communication, precision of motor control, functional safety and Class-C medical software development, Altek is able to establish a world class medical development team with proven record on design, verification, manufacturing, quality control, process management and document control. Altek will continue its vision, better life for everyone - by bringing more innovative medical products to the market.

Words from the Team Leader

Altek's vision: "Better life for everyone!"

Company Profile & Business Contact Information

Organization	Medical Business Unit/Altek Corporation
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Website	www.altek.com.tw

國泰世華銀行
Cathay United Bank

Cathay United Bank

Innovative Project Team on Green Financing and Responsible Lending

Innovative Project on Green Financing and Responsible Lending

Reasons for Winning

Cathay United Bank (CUB) is the first bank to adopt the Equator Principles in Taiwan and has established the first Project Finance specialized team in the country. As the first Equator Principle Financial Institution (EPFI) in Taiwan, CUB implements the environmental and social considerations into the loan approval process and actively promotes the development of green energy by guiding capital injections into the relevant industries.

CUB has always been a pioneer in green finance and has grown to become one of the top solar financing providers in Taiwan. In 2017, CUB completed the first large-scale rooftop solar power plants (30MW) in Taiwan. In 2016, it also helped constructed the first successful offshore wind farm in accordance with the Equator Principles in Taiwan, which has set a precedence for the upcoming offshore wind projects. In addition, CUB is the first bank in Taiwan to extend the scope of Equator Principles in implementing the environmental and social considerations into its loan approval process.

Key Features

As the leading green financier in Taiwan, CUB has established the first Project Finance specialized team in Taiwan and brought together international Project Finance experts with extensive local knowledge to serve the clients. To support the Green Finance Promotion Program initiated by the Financial Supervisory Commission (FSC), CUB evaluates the risks and the mitigation plan for each project by requesting due diligences covering Know Your Customer (KYC), technical, financial, tax and accounting, insurance, legal and environmental and social from the clients. Through the comprehensive credit assessment process, CUB provides funding during construction phase for the renewable project, creates value by providing financial flexibility for the sponsors, and mitigates risks by applying appropriate clauses and measures.

Furthermore, CUB is also the first Taiwanese bank to adopt the Equator Principles. Having the most Equator Principles related experiences, a sustainable finance unit was established to implement responsible lending to all corporate clients by creating a systematic mechanism in assessing environmental and social risks. CUB safeguards the significance of environmental and social responsibilities when providing financing to our clients. It strives to lead the domestic financial industry to meet international best practices, and to create a triple win situation for the financial sector, the borrowing industries, and the environmental & social aspects of businesses.

Words from the Team Leader

CUB, with the vision of being a green finance leading brand, is actively pursuing the direction of "Environmental, Social and Economic Sustainable Development", and continues to carry out our financial influences and to fulfill social responsibilities.

Company Profile & Business Contact Information

Organization	Innovative Project Team on Green Financing and Responsible Lending/Cathay United Bank
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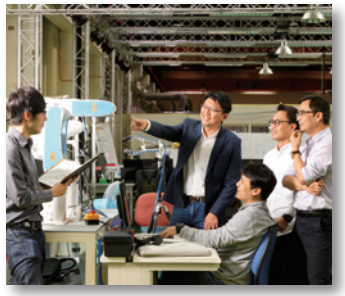
工業技術研究院
Industrial Technology Research Institute

Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute

The team of Intelligent Robotics

Polishing Robot with Cyber-Physical System (CPS) Technology



Reasons for Winning

"The team of Intelligent Robotics" of the Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute has seen the problems of labor shortage, environmental noise and dust pollution faced by the Taiwan plumbing industry. With the integration of cyber and physical technology, the team developed CPS grinding and polishing intelligent robots solution for plumbing industry. The solution had implemented in HCG successfully, which is the first domestic grinding and polishing production line in Taiwan. In addition, the team licensed its unique CPS technology to HIWIN technologies corporation to accelerate industrial applications.

In 2016 and 2017, Changhua Plumbing Hardware Industry Service Group and Plumbing Hardware and Hand Tools Industry Intelligence Alliance were established respectively. It gathered representative manufacturer associations and enterprises upstream and downstream of supply chains. In 2018, team lead, Dr. Yu, served as the coordinator to establish Taiwan's first robot standard, TARS, to provide the fundamental environment of Taiwan's robot industry. The team has been cultivating the industry for 5 years to upgrading and transformation of the plumbing industry. The successful results have been filmed by Discovery channel"How It's Made" and recognized by the President.

Words from the Team Leader

With the core cyber-physical robotics technology, we innovate automatic grinding and polishing solutions, and lead the smart manufacturing and digital transformation of the plumbing industry.

Key Features

"The team of Intelligent Robotics" of the Mechanical and Mechatronics Systems Research Laboratories, Industrial Technology Research Institute has seen the problems of labor shortage, environmental noise and dust pollution faced by the Taiwan plumbing industry. To solve these issues, the team developed CPS grinding and polishing intelligent robots solution.

Through the innovative simulation and integrated control technology, the software automatically generates the grinding and polishing path for curved surfaces and ridges of faucets. For users, the team has implemented this solution in HCG, and established the first domestic grinding and polishing intelligent robot production line, replacing the original production line imported from German. Performance is superior to existing solutions in robot programming and optimization of motion control, saving teaching time by 90% and improving grinding efficiency by 25%.

For maker, the team licensed its unique CPS technology to HIWIN technologies corporation to accelerate industrial applications. In 2016 and 2017, Changhua Plumbing Hardware Industry Service Group and Water Hardware and Hand Tools Industry Intelligence Alliance were established respectively to work more closely with local industry and connect upstream and downstream supply chains. In 2018, team lead, Dr. Yu, served as the coordinator to establish Taiwan's first robot standard, TARS, to provide the fundamental environment of Taiwan's robot industry. The team has been cultivating the industry for 5 years, integrating the core cyber-physical technology of robots, innovating research and development of automated grinding and polishing solutions, leading the smart manufacturing and digital transformation of the plumbing hardware industry, enhancing the international competitiveness of the industry. The successful results have been filmed by Discovery channel "How It's Made" and recognized by the President.

Company Profile & Business Contact Information

Organization	The team of Intelligent Robotics/Mechanical and Mechatronics
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財團法人 食品工業發展研究所 Food Industry Research and Development Institute

Food Industry Research and Development Institute

Food Industry Innovation Consulting Group for Taiwan's Offshore Island

Innovation Promoters for Taiwan's Offshore Island Food Industry

Reasons for Winning

The "Food Industry Innovation Consulting Group for Taiwan's Offshore Island"of Food Industry Research and Development Institute integrates the related fields, such as food processing, microbial fermentation engineering, machinery, industrial economy and education and professional training, and actively assists in the development of local industries in such as Kinmen, Mazu and Penghu. The main promoting strategies include integrating and activating the offshore islands industrial chain, ensuring the healthy and secure image of the offshore islands industry, key technology applications to enhance the value of the offshore islands, and the establishment of the offshore island tourism brand. In recent years, it has assisted offshore islands manufacturers to implement more than 34 projects and develop more than 20 new products, including sorghum distiller's beef instant package, Mazu chicken with aged wine, seremban patch, red yeast rice wine chicken instant package, cactus creative ice, crispy fried oyster, etc. The total output value is estimated to exceed NTD350 million.

Key Features

Food Industry Research and Development Institute integrates senior experts in food processing, fermentation engineering, food safety, industrial analysis and education and professional training, and organizes an industry counseling team. Together with the industrial, official and academic energy of the offshore islands, it established an industry development consulting service platform to assist Kinmen, Mazu and Penghu to innovate the local industry and achieved remarkable results. The team guided the development of the offshore island industry by coaching the standard manufacturers, and activated and extended the offshore island characteristic industrial chain, including Kinmen sorghum distiller beef, Mazu red mold old wine, Penghu cactus fruit, black sugar cake and scallop sauce, etc., and solved the problems of industrial land and food hygiene. The output value is by at least NTD350 million. In addition, the team strengthened the manpower and resources of local enterprises, trained more than 500 people, introduced semi-automatic to improve the processing, and developed dozens of local innovative gifts. At the same time, they provided matching services for local enterprises to expand their international channels such as China, Japan and Hong Kong. They develop new products and business opportunities, and the annual output value increased by NTD10 million.

Words from the Team Leader

Break through the restrictions on the development of the offshore island industry, enhance the quality and value of offshore island products, and promote the marketing of offshore island products.

Company Profile & Business Contact Information

Organization	Food Industry Innovation Consulting Group for Taiwan's Offshore Island/ Food Industry Research and Development Institute
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金屬工業研究發展中心
METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE

Metal Industries Research & Development Centre

Team Category
Model of Local Industry Innovation Award

High Efficiency Combustion Energy Saving Technology R&D Team

The Best Solution of High Temperature Waste Heat Recovery- High Efficiency Heat Regenerative Combustion Energy Saving Furnace

Reasons for Winning

The "High Efficiency Combustion Energy Saving Technology R&D Team" of Metal Industries Research & Development Centre was established in January 2015. With the support of the Energy Technology Project of the Bureau of Energy of the Ministry of Economic Affairs, it successfully established a localized high temperature industrial furnace with heat regenerative combustion technology and integrated the industrial, academic and research organizations in southern region. It was dedicated to the development of integrated design and development capabilities for regenerative combustion systems and industrial furnaces.

They localized the key components and design technology and created an ecology chain for waste heat recovery and energy recovery through technology transformation. And by establishing an innovative application demonstration field that conforms to international standards, they gradually expand industrial benefits. Currently, five types of high-temperature processing furnace have been developed. Industrial furnaces provide the best solution for high-temperature waste heat recovery for the steel, chemical, precision foundry, metal products and foundry industries.

Words from the Team Leader

Continuously break through the traditional combustion technology thinking and lead the energy-saving technology industry to make a contribution to the environment!

Key Features

The output value of the steel industry in the southern region is the highest in the country. However, in high-temperature process, the exhaust emissions often cause environmental concerns. In order to reduce the high-temperature process emission problem in the southern region and improve energy efficiency, Metal Industries Research & Development Centre integrated the industrial furnace enterprises, energy-saving equipment industry and key component manufacturers in the southern region to establish localized heat storage and combustion service energy, and successfully developed the best waste heat recovery technology in high temperature process above 700 °C for the industries. The energy saving rate can reach more than 30%. Through the development of innovative application demonstration fields in line with international standards, they established energy-saving emission reduction models for industrial furnaces and combustion reference standards. They also transformed the technology of their research and development results, and gradually established a waste heat recovery and energy-saving ecological chain. At present, five types of high-temperature industrial furnaces have been successfully developed, providing the best solutions for high-temperature waste heat recovery in the steel, precision foundry, chemical industry, metal products and foundry industry. Accumulatively the promotion investment is over NT$160 million, and the production value increased by more than NT$2 billion. And it accumulatively saved up 17.15 million kWh of natural gas, which is equivalent to reducing CO2 emissions by 32,228 metric tons.

Company Profile & Business Contact Information

Organization	High Efficiency Combustion Energy Saving Technology R&D Team/ Metal Industries Research & Development Centre
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金屬工業研究發展中心
METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE

Metal Industries Research & Development Centre

League of Superb Shoe Cementing

Intelligent technology to overturn the Taiwan shoe industry

Reasons for Winning

The "League of Superb Shoe Cementing" is a professional shoe-making automatic cementing team composed of Metal Industries research & Development Centre, Dingsheng, Longshun and Nanpao Company. Through many years of experience in machine visial, control and system integration, Metal Industries Research & Development Centre imported 3D visual and integrated with robotic arm control. Dingsheng Company is a 38-year-old shoe equipment company, responsible for the development of automation equipment for baking, freezing and shaping and conveying production lines of the entire molding section; Longshun Company goes deep into 3D cloud point data and calculation of the attitude of the six-axis robot arm; Nanbao Company researches the modification and characteristics of the water gel to meet the requirements of the automatic glue spraying process. The alliance team combines expertise in the fields of visual, intelligent control, process, chemistry, shoe materials, etc. to jointly develop automatic rubber coating equipment with flexible manufacturing to help shoe factories move towards smart shoes.

Cooperating Organization

Ding-Shen Mechanical Co.,LTD.
All Pass Automation Co.,LTD.
Nan Pao Resins Chemical Co.,LTD.

Key Features

As to shoemaking, since shoe materials are soft and each pair of shoes has different size, diverse and has large variations, it is considered by most to be the most difficult industry to automate, and it is also the most labor-intensive in the industry. In the shoemaking process, the bonding of the upper and the sole needs to be combined by roughing and multi- cementing treatment agent, glue and baking. In the past, it was all done by manual labor. The technology developed by the team of Metal Industries Research & Development Centre is to make the robot arm have long eyes (3D vision and identification technology), make the arms smart (automatically generate the upper and the sole track), to achieve the automatic roughing and glue-spraying process in a specific area within 16 seconds, replacing the traditional manual roughing and cementing process. Through the introduction of team technology, shoe factories can save 18 manpower in one production line, increase the per capita output value by more than 1.2 times, and increase the production capacity by more than 2 times, so that the Taiwan shoe industry can maintain its leadership.

Words from the Team Leader

Improvement is not enough to make things happen. Doing things that have to be done only by me can we achieve future success.

Company Profile & Business Contact Information

Organization	League of Superb Shoe Cementing/ Metal Industries Research & Development Centre
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工業技術研究院
Industrial Technology Research Institute

Electronic and Optoelectronics System Research Laboratories, Industrial Technology Research Institute

Team Category
Industry Innovation Alliance Award

CIMS Alliance Team of Electronic and Optoelectronic System Research Laboratories of ITRI

Consortium for Intelligent Micro-assembly System

Reasons for Winning

In response to market trends and demand, industry chain integration and technology development, ITRI established “Consortium for Intelligent Micro-assembly System (CIMS)" in 2016. The members include market analysis (Industry, Science and Technology International Strategy Center of ITRI, and the LEDinside), R&D, patent and industrialization promotion team, have established this huge assembly and integration platform for micro-LED industrial resource, linking the three industries of Taiwan: display, LED and semiconductor, to carry out group cooperation and technology development. This is to enhance the economic development and benefits of the three major industries and expand the international market.

Cooperating Organization

Industry, Science and Technology International Strategy Center of ITRI, LEDinside

Key Features

As global brands such as Apple, Facebook, Google, and Samsung have successively invested in micro-LED technology, this panel technology with advantages of thinness, multi-function, high resolution, and power saving is regarded as the new display technology of next generation. Since this technology spans the four major industries of display, LED, equipment, the industrial chain is quite complicated. However, these four industries are the proficiency of Taiwanese manufacturers. Also, it has been an advantage for ITRI to invest in this technology for 10 years. Therefore,in 2016, ITRI took the lead globally in promoting the new industrial chain cooperation, with the final system product as the main goal. Since the CIMS connects the middle and lower stream of the four major industries, and with the one-stop industrial chain, the brand company and the component manufacturers can share mutual communication platform. Thus, technology research and development, production and marketing can be linked together, and the terminal product condition is their driving force. With the foundation of the four major industries in Taiwan, they connect global manufacturers successfully to integrate the two major platforms : Digital Signage and TV. The group battles are competing for international business opportunities of the next generations.

Words from the Team Leader

In the new century of micro-LED, to aim at the gap (platform integration), focus on brand demand, and leverage Taiwan's industrial strengths for development, there is nothing but through the spirit of the alliance!

Company Profile & Business Contact Information

Organization	CIMS Alliance Team of Electronic and Optoelectronic System Research Laboratories of ITR/Electronic and Optoelectronics System Research Laboratories, Industrial Technology Research Institute
Team Leader	Chih-I Wu,Vice President & Gen. Director
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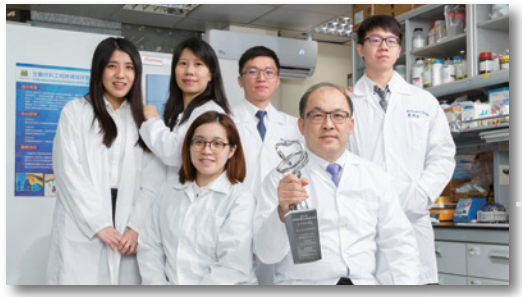
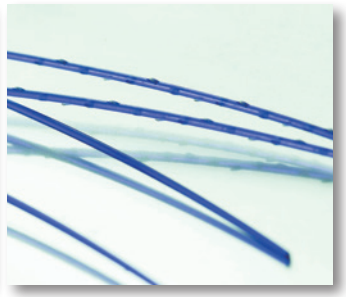
MT³ 生醫材料工程跨領域研發中心
Medical Engineering Research Team
Multidisciplinary Technology
Metro Taipei

National Taipei University of Technology



Multidisciplinary technology researches in a medical engineering research team along metro Taipei system (MT3)

Biomaterials Surface Engineering Industry-Academia Consortium



Reasons for Winning

Based on the "Biomaterial Friction and Surface Engineering" technology, Biomaterials Surface Engineering Industry-Academia Consortium provides four major technical services for biomedical manufacturers, including biomaterial tribology and surface engineering testing, technology transfer and bridging, and biomedical material commercialization process as well as the training of commercialized medical talents, to assist the industry in the development and commercialization of biomedical materials. By connecting the medical device industry chain and integrating the upstream and downstream industries, the Consortium achieved the goals of division of labor, spreading investment risks and accelerating commoditization, in order to create market value of biotechnology and medical industry.

Key Features

Biomaterials Surface Engineering Industry-Academia Consortium understands that biomaterials are high demand products in the clinical medicine field. The interactions between the surface of the materials and biological molecules or tissue often affect the results of medical implants. The core technology of the Consortium is based on “biomaterial tribology and surface engineering”. Therefore, the technical problems of medical device industry can be solved by feedbacks from the alliance members and medical distributors. The Consortium also connects medical device industry chain and integrates upstream-downstream manufacturers, in order to spread risks and accelerate product commercialization by promoting teamwork. In addition, the Consortium promotes academic research to be applied in the industry for creating market value of biomedical industry together.

Cooperating Organization

Plastics Industry Development Center,
Far Eastern Memorial Hospital Department of Orthopedic Surgery

Words from the Team Leader

Start from the end: Seeing innovation from demand and creating value from innovation. Guide the development of medical materials to integrate products with clinical medical needs.

Company Profile & Business Contact Information

Organization	Multidisciplinary technology researches in a medical engineering research team along metro Taipei system (MT3)/ National Taipei University of Technology
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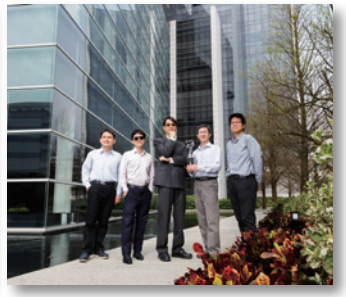
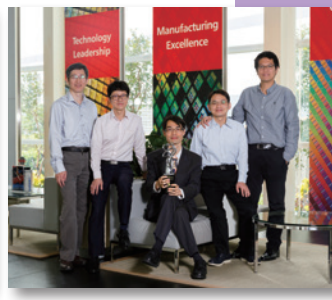
  College of Medicine National Cheng Kung University

C.S. Liu
Taiwan Semiconductor Manufacturing Company, Ltd.

Read and learn relevant knowledge extensively and improve the insight. Work hard and effectively to put the plan and solution into practice.

C.S. Liu,Director





Reasons for Winning

Leading the team to break through the process difficulties, Director C.S. Liu innovated and developed the key micro meter and nano meter IC process. He recruited and led the first R&D advanced packaging module team and established TSMC's first advanced packaging assembly line. Leading the development of a system-level "integrated fan-out wafer level packaging technology - InFO" that exceeds Moore's Law, he integrated advanced logic IC and DRAM memory, and went into mass production to create huge foreign exchange. By estimation, more than one billion InFO chips will be used in consumer mobile devices by 2020. The overall market size will reach NT$70 billion per year. The relevant investment amount will reach tens of billions of dollars in Taiwan, and it will certainly make a substantial contribution to Taiwan's semiconductor industry.

Biography

(1)Education	• Ph.D. in Materials Science & Engineering, National Tsing Hua University (1990-1995) • B.S. National Chiao Tung University (1986-1990)
(2)Experience	• R&D Director, TSMC (2014-present) • R&D, TSMC (1997-present) • Module Technology Development Sr. Engineer, Macronix (1995-1997)
(3)Awards	• Phi-Tau-Phi Honor Member, 1995 • Distinguish Youth Award, Taiwan Electronic Materials and Device Association, 2000 • Distinguish Youth Award, Industry Technology Development Award, Ministry of Economic Affairs, 2006 • IEEE Best Impact Award, 2006 • Silver Award, Ministry of Education, 2014 • Innovative Trailblazer Team Award, National Industrial Innovation Award, 2017

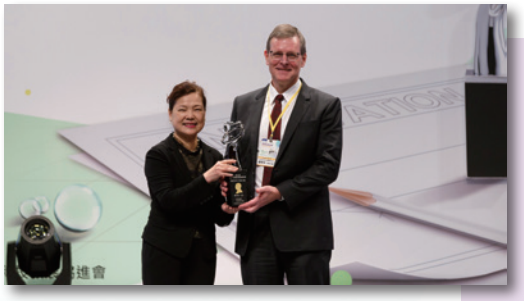
Acceptance Speech

First of all, I would like to thank the government for encouraging enterprises to innovate, research and develop, and set up National Industrial Innovation Awards to inspire companies and individuals who are committed to innovation.

I want to say thank you to so many people for winning the Innovation Elite Award because innovation requires the cooperation of the colleagues as well as encouragement and stimulation of the senior executives. During the period of TSMC, many key innovations couldn't be achieved without Vice President Douglas Yu and other senior executives' guidance and encouragement and many colleagues' assistance. TSMC provides a high-quality innovation platform and attaches great importance to innovative inventions. I have been awarded the Patent Department Award in TSMC many times and have also been elected as the TSMC technology committee. These are the incentive channels set up by TSMC to reward innovative R&D, so that the employees who are committed to technology research and development can contribute their strengths.

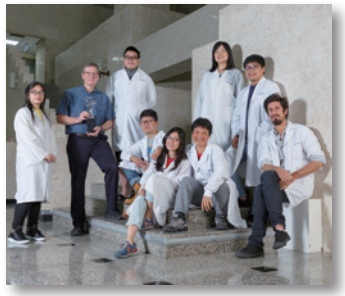
With numerous talents, the technology of TSMC has kept ahead in the industry, and TSMC's excellent manufacturing capability is also the strong support of R&D staff, so that innovation can get the best results.

Steve Roffler
Academia Sinica, Institute of Biomedical Science



Make yourself better everyday.

Steve Roffler,
Distinguished Research Fellow



Reasons for Winning

Steve Roffler has been a researcher at Academia Sinica for 30 years. His lab developed the world's first monoclonal antibodies that specifically bind to polyethylene glycol, which is a biocompatible polymer used to create new recombinant medicines. This technology has changed new drug testing methods in global pharmaceutical and biotechnology companies. Polyethylene glycol antibodies and their derivatives are now used around the world to accelerate development and increase the safety of new polyethylene glycol drugs. The research results have been transferred from Academia Sinica to laboratories, international biotechnology and pharmaceutical companies more than 700 times. The research and development achievements are outstanding, and totally 20 domestic and foreign patents have been attained. The research and development results of domestic disease have created more than NT$130 million income in authorization, contributing greatly to Taiwan's biomedical and cancer research.

Acceptance Speech

I would like to thank the evaluation committee of the Ministry of Economic Affairs for their efforts to improve the research and development of domestic science and technology in Taiwan. This award is a great affirmation for early and current lab members, including students, assistants, and postdoctoral researchers; it will also inspire us to work harder to develop new medical technologies and drugs and continue to work to improve the health of patients. I am fortunate to be able to work with a group of outstanding and helpful colleagues at Academia Sinica, and the powerful administrative team allows us to focus on research; Furthermore, I would also like to thank my wife for continuously accompanying and supporting me. My three daughters make my life better. I am honored to have the opportunity to contribute my efforts for human health and I hope to work hard to continuously develop new medical technologies to make the world a better place.

Biography

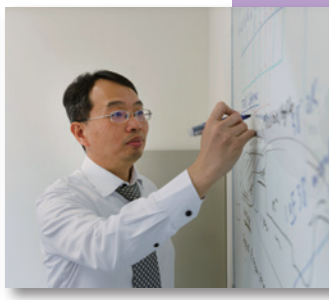
(1)Education	• Postdoc, National Defense Medical Center, Department of Immunology and Microbiology (1987-1991) • Ph.D. University of California, Berkeley, Chemical Engineering (1981-1986) • B.S. University of Washington, Chemical Engineering (1979-1981)
(2)Experience	• Distinguished Research Fellow, Institute of Biomedical Sciences, Academia Sinica (2018-present) • Adjunct Professor, Graduate Institute of Medicine, Kaohsiung Medical University (2016-present) • Research Fellow, Institute of Biomedical Sciences, Academia Sinica (2004-2018) • Associate Research Fellow, Institute of Biomedical Sciences, Academia Sinica (1998-2004) • Assistant Research Fellow, Institute of Biomedical Sciences, Academia Sinica (1991-1998)
(3)Awards	• Chevron Scholarship, 1981 • Graduated Summa cum laude, Dept of Chemical Engineering, University of Washington, 1981 • Hillary Scholarship, 1981-1986 • Outstanding Research Award, Ministry of Science and Technology, 2017 • 25th TECO Technology Foundation's Outstanding Achievement Award in Biomedical Technology, 2018 • 14th TienTe Lee Biomedical Foundation Outstanding Biomedical and Biotechnology Award, 2018

eMemory 力旺電子

Hsin-Ming Chen
eMemory Technology Inc.

*"Latticework * Opportunity * Risk Taking * Execution = Innovation + Business Value"*

Hsin-Ming Chen,Senior Director



Reasons for Winning

Hsin-Ming Chen is currently the Senior Director of Product Division II of eMemory Technology Inc. He has led the technical team for NeoFlash (SONOS based Flash Memory) development and joined the advanced technology R&D team to successfully develop the electrically erasable memory (NeoEE technology). After that, he led the team to break new ground in the embedded & highly reliable NeoFuse silicon intellectual property (IP) and the hardware security technology. He developed the "NeoPUF" solution based on NeoFuse technology and was recognized by the International Solid-State Circuits Conference (ISSCC). With the wide availability of NeoFuse technology on more than 47 process platforms in worldwide foundries, customers were already in mass production of CIS, STB, PMIC, BT, IoT, SoC and OLED display driver relative products with NeoFuse IP embedded. His technical contribution has accumulated more than 170 patents, and has been used by domestic and international EU and US clients. eMemory is also the world's first dedicated IP provider to complete the silicon verification of OTP intellectual property in the leading "7 nm FinFET" process.

Acceptance Speech

First of all, I would like to thank the Ministry of Economic Affairs and the evaluation committee for their affirmation, so that I can win the National Industrial Innovation Award! The industrial scale of "Silicon Intellectual Property" is rather small in many electronic supply chains in Taiwan, but it is one of the indispensable key components of electronics! This award is not only an affirmation for us or other domestic silicon intellectual property provider of technology licensing to large foreign companies, but also a national mission and social responsibility that inspires us to be move forward!
I sincerely thank the teammates who have worked hard day and night together for many years. This honor must be shared with everyone. I am also very grateful to the officers for their innovative spirit, their mission of taking care of the employees and their far-reaching industrial vision. They started from ground up and established eMemory Technology Inc. with a wonderful and happy working environment!
Finally, I would like to thank my parents for nurturing me and thank my wife and family for their support and companionship all along!

Biography

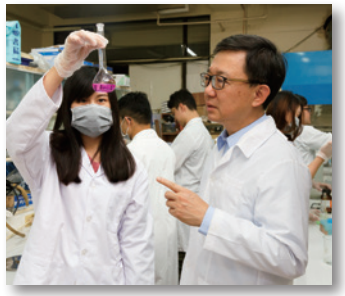
(1)Education
- M.S. National Tsing Hua University (1994-1996)
- B.S. National Tsing Hua University (1990-1994)

(2)Experience
- Senior Director, eMemory Technology Inc. (2019-present)
- Director, eMemory Technology Inc. (2012-2018)
- Deputy Director, eMemory Technology Inc. (2008-2011)
- Manager, eMemory Technology Inc. (2005-2007)
- Deputy Project Manager, eMemory Technology Inc. (2002-2004)
- R&D Engineer/Senior Engineer, TSMC (1998-2002)

Chih-Ming Kao
Institute of Environmental Engineering,
National Sun Yat-Sen University

Discreet in word and deed, optimistic and aggressive attitude, effective time management.

Chih-Ming Kao,Chair Professor



Reasons for Winning

Chih-Ming Kao Chair Professor mainly researches green sustainable remediation technology and green natural purification technology and has achieved breakthrough results. They are actually applied to the treatment of polluted land and environmental rehabilitation work. His research results have won many important awards and patents at home and abroad (38 items). The research results, combined with practice, have reached patentization, industrialization and in- plant. It has been used for remediation in many polluted sites. In addition to meeting the remediation objectives, it also assists the industry to reduce environmental protection costs and enhance the willingness of enterprises to invest in environmental rehabilitation.

The Innovative and pragmatic, cost-effective, green, energy-saving and environmentally friendly remediation technologies not only have actual contributions to the domestic pollution remediation industry, but also have the potential to be exported to Southeast Asia, China and other Asian countries, with great outreaching and diffusion characteristics.

Biography

(1)Education
- Ph.D. in Material Science and Engineering, National Chiao Tung University (1993-1998)
- M.S. in Material Science and Engineering, National Chiao Tung University (1992-1993)
- B.S. in Physics, Chung Yuan Christian University (1988-1992)

(2)Experience
- Director, Institute of Environmental Engineering, National Sun Yat-Sen University, Taiwan (2019-present)
- Chair Professor, Institute of Environmental Engineering, National Sun Yat-Sen University, Taiwan (2016-present)
- Vice President, Global Institute for Energy, Environment and Sustainability, USA. (2014-present)
- Professor, Institute of Environmental Engineering, National Sun Yat-Sen University, Taiwan (2003-present)
- President, Chinese Institute of Environmental Engineering, Taiwan (2015-2017)
- President, Taiwan Association of Soil and Groundwater Environmental Protection (2013-2015)
- Assistant Professor/Associate Professor/Professor and Director/Distinguished Professor, Institute of Environmental Engineering, National Sun Yat-Sen University, Taiwan (1997-2015)
- Research Consultant, Institute of Marine and Agricultural Research, Environmental Protection Program, NC, USA (1995-1997)
- Project Manager, Environmental Science and Engineering Division, Geophex, Ltd., NC, USA (1993-1997)

(3)Awards
- TECO Green Tech Competition, Champion Award, 2018
- Scientific Chair Professor Award, Far Eastern Y.Z. Hsu Science and Technology Memorial Foundation, 2018
- Grand Prize - Excellence in Environmental Engineering and Science, American Academy of Environmental Engineers and Scientists, 2018
- TECO Award, 2017
- Robert G. Wetzel Award, American Institute of Hydrology, 2017
- J. James R. Croes Medal, American Society of Civil Engineers, 2017
- Rudolph Hering Medal, American Society of Civil Engineers, 2017
- Distinguished Researcher Award, Taiwan Ministry of Science and Technology, 2015
- State of the Art of Civil Engineering Award, American Society of Civil Engineers, 2014
- Distinguished Honor Award, C.T. Ho Foundation, 2013

Acceptance Speech

After I obtained my degree, I worked in the US environmental engineering consulting industry. In the years of practical experience, I feel that if the conflict between environmental protection and economic development needs to be resolved, we must look at environmental protection and pollution problems from a pragmatic attitude and from the perspective of the industry. In combination with academic and business circles, we will develop economically effective, innovative and pragmatic environmental remediation and pollution treatment technologies to reduce the environmental protection costs of the industry while reaching the goals of energy saving, carbon reduction, environmental friendliness and green sustainability. On behalf of the research team members, I would like to thank the judges for their recognition, and thank my team members for their hard work and dedication, and thank my family for their backing. Thanks to the Ministry of Science and Technology and the business community for their support and research funding and thanks to Sun Yat-sen University for providing a good research environment which allows our team to complete a series of green technology development successfully, and actually apply green remediation technology to the remediation of contaminated sites. Finally, I would like to thank the Ministry of Economic Affairs for the support of industrial innovation which enables our team to attain the greatest feedback.

工業技術研究院
Industrial Technology Research Institute

Cheng-Chung Lee
Industrial Technology Research Institute/ Electronics and Optoelectronics System Research Laboratories

Adhere to Unmet Needs and integrate cross-disciplinary R&D energy to achieve innovative technologies that meet industry and consumer needs.

Cheng-Chung Lee,
Deputy General Director

Reasons for Winning

Cheng-Chung Lee, Deputy Director General, has many years of cross-disciplinary R&D experience, including materials, components, processes, modules and display systems integration. He led the team to develop a number of key technologies such as ultra-thin multi-functional foldable plate, developed the world leading 7-inch Foldable AMOLED display system with both internal and external folding, while meeting the standard of scratch resistance, wear resistance, impact resistance and foldable. In 2018, the company completed the technology transfer of the panel factory of our country, signed a contract of NT$192 million, and accumulatively facilitated the relevant domestic and foreign manufacturers to invest NT$5.44 billion in Taiwan to carry out related product (materials, equipment, panels) development and production. In addition, with the core technology of Flexible AMOLED, it assists the panel manufacturers in our country to transform the existing production line into panel-level fan-out packaging technology and promote cross-industry cooperation between panel and semiconductor industry.

Acceptance Speech

Thanks to the affirmation of the evaluation committee, the support of Department of Industrial Technology (DoIT) of the Ministry of Economic Affairs, the cultivation of the ITRI, and the efforts of the R&D team, so that I can have the honor to receive this award. Innovative technology research and development for future needs is a long and difficult road, but also a road full of joy. On this road, because of the support of friends, we can break through the difficulties and challenges together and achieve the goals and results. I'm full of gratitude within! Thank you!

Biography

(1)Education
- Ph.D. in Material Science and Engineering, National Chiao Tung University (1993-1998)
- M.S. in Material Science and Engineering, National Chiao Tung University (1992-1993)
- B.S. in Physics, Chung Yuan Christian University (1988-1992)

(2)Experience
- Deputy General Director, Electronics and Optoelectronics System Research Laboratories, Industrial Technology Research Institute (2018-present)
- Deputy General Director, Display Technology Center, Industrial Technology Research Institute (2011-2017)
- Deputy Division Director/ Division Director, Display Technology Center, Industrial Technology Research Institute (2006-2011)
- Engineer/ Section Manager/ Deputy Manager/ Manager, Display Technology Center, Industrial Technology Research Institute (1998-2006)

(3)Awards
- Outstanding Alumni_ Department of Material Science and Engineering of National Chao Tung University, 2018
- Outstanding Alumni_ Department of Physics, College of Science of Chung Yuan Christian University, 2018
- Technology Development Programs Achievement Award of Ministry of Economic Affairs_ The Core Technologies of Smart Handheld Devices, 2015
- Technology Development Programs Achievement Award of Ministry of Economic Affairs_ Foldable AMOLED Flexible Packaging Technology, 2014
- WSJ Technology Innovation Awards_ i2R e-paper, 2011
- R&D 100 Awards_ i2R e-paper, 2011
- WSJ Technology Innovation Awards_ FlexUP, 2010
- R&D 100 Awards_ FlexUP, 2010

Anne Wu
Department of Accounting, National Chengchi University

Suffering is an opportunity for growth.

Anne Wu,Chair Professor

Reasons for Winning

Chair Professor Anne Wu has been working on the combination of academic research and practical application for many years. After 33 years of rich academic innovation and 29 years of practical application, she has developed Taiwan's localized management accounting innovation technology - Activity Value Management (AVM). In recent years, through the integration of the resources and strength of the academic and practical circles, the AVM has been fully promoted to bring high economic benefits to the practical community, such as Taiwan Semiconductor Manufacturing Co., Ltd., China Trust Commercial Bank, Wonderland Co. and Filtrafine International Co., Ltd., etc. So far, AVM has owned "Invention patent" in Taiwan and "trademark right" in Taiwan and Mainland China. In addition, Professor Wu has made great achievements in talent cultivation and AVM promotion, and made outstanding contributions in "management innovation" and “soft power enhancement” to the enterprises of our country.

Biography

(1)Education
- Ph.D. in Accounting, The George Washington University, U.S.A (1986-1989)
- Master of Business Management, National Sun Yat-sen University (1983-1985)
- Bachelor of Economics, Tunghai University (1972-1977)

(2)Experience
- Task Force, American Accounting Association Management Accounting Section (2018-present)
- Founder and Promoter, Asian-Pacific Management Accounting Research Symposium (AMARS) (2016-present)
- Director, Integrated Strategic Value Management System (ISVMS) Research Center, College of Commerce, National Chengchi University (2016-present)
- Director, Accounting and Intellectual Capital Research Center, College of Commerce, National Chengchi University (2010-present)
- Director, Taiwan Intellectual Capital Research Center, College of Commerce, National Chengchi University (2002-2010)
- Director, Accounting Research and Development Center, College of Commerce, National Chengchi University (1998-2002)

(3)Awards
- Merit MOST Research Fellow Award, Ministry of Science and Technology, 2019
- Research Subsidy Incentives, Ministry of Science and Technology, 2013-2017
- Distinguished Alumni Award, Tunghai University, 2013
- Academic Award, Ministry of Education, 2012
- Outstanding Research Award, Ministry of Science and Technology, 1999, 2002, 2010
- Excellent Civil and Teaching Personnel Award, Ministry of Education, 2004
- Industry-University Cooperation Award (the first professor in the management field to receive this award), Ministry of Education, 2002

Acceptance Speech

I sincerely thank the organizers and evaluation committee of the "National Industrial Innovation Awards of the Ministry of Economic Affairs" for their recognition and encouragement. After 33 years of intensive research on theory innovation and practical verification, I have developed a local “Activity Value Management (AVM)” system. I have been actively assisting Taiwanese companies for 29 years, such as Taiwan Semiconductor Manufacturing Co., Ltd. China Trust Commercial Bank and Wonderland (Mingmen) Co., Ltd., not only making profit growth through the implementation of AVM, but also succeeding in innovation and transformation. Here, I am especially grateful to many business partners who have supported my practical verification for a long time.

At the same time, I would also like to thank the National Chengchi University for providing a great research environment, as well as the College of Commerce for providing the platforms and opportunities for me to interact and cooperate with the business community to gain deeper understanding of the needs of enterprises, and achieve the "integration of knowledge and action". With their generous support, I have made the theory of AVM closely integrated with practice, and then developed unique IT products. Truly rooted in Taiwan, I have owned trademark and patent right, and I can assist Taiwan enterprises to transform, upgrade, and enhance their international competitiveness.

Finally, I sincerely thank my husband and family for their selfless dedication and being my strongest backing, so that I could be fully committed to the research and innovation of AVM.

Mei-Yun Wang
Taiwan Semiconductor Manufacturing Company, Ltd.

Only if you are willing to try, you have unlimited possibilities!

Mei-Yun Wang,Deputy Director

Reasons for Winning

Deputy Director Mei-Yun Wang took the lead in innovating and developing the nickel silicide process of TSMC, establishing machine standard and successful mass production, and continuously developing innovative technologies to generate nickel silicide which is lower than the international semiconductor standard resistance value. At the same time, she successfully developed 20 nm metal zero layer technology, 10 nm and 5 nm mid-of-line processes. Ahead of other peers, she successfully won the trust of important customers, establishing a good foundation for TSMC's revenue and technical reputation, and creating employment opportunities for the industry and neighboring companies.

The contribution of Deputy Director Wang is applied to mobile devices, chips and servers to support customers worldwide in achieving the best density and cost advantages, and further enhancing the international competitiveness of Taiwan's semiconductor industry.

Acceptance Speech

I am honored to receive this award. In addition to thanking the evaluation committee for their affirmation, I would also like to thank the officers, colleagues, and my family who accompanied behind me.

It is a very happy thing to be able to accomplish many impossible tasks together with a group of enthusiastic and like-minded partners in the high-quality environment of TSMC. Although there are many difficult processes in the face of pressure, frustration and failure, the sense of accomplishment of solving problems with new ideas, the tacit understanding of the comrades in the team, and the encouragement and trust of the officers. They are all supporting me to move forward continuously. The visible future is still full of infinite challenges. With the experience of all generations and constant innovation, we will confront them calmly.

Biography

(1)Education	• M.S. Mat. Sci. & Eng., National Taiwan University (1992-1994) • B.S. Chem. Eng., National Taiwan University (1988-1992)
(2)Experience	• Deputy Director-Manager,TSMC (2009-present) • Section Manager, TSMC (2003-2009)

Po-Jen Chen
Taiwan Film & Culture Association

There was distress and hardship in the transition of life; however, one day when we look back, we have conquered and triumphed over it.

Po-Jen Chen,CEO

Reasons for Winning

Po-Jen Chen is committed to building a high-quality national art film museum, Huashan Spot Cinema. She has extensive experience in large and medium film festivals at home and abroad and cross-boundary cooperation between venues. She is dedicated to film education for a long time, actively cultivates talents, and has made important contributions to the promotion of Taiwanese art films. In addition to optimizing the image space, she opened up diverse categories of films, developed market potential and business opportunities, and established professional organization processes and standard operations for art cinemas. She led Huashan Spot Cinema to carry out the innovation of the screening channel, closely following the upstream manufacturing and marketing demand of the industry, and forming a mature and complete industrial dynamic circulating ecology. With good innovative operational thinking and execution capability, she led Huashan Spot Cinema to the international stage and increase international visibility of Taiwanese cinemas.

Biography

(1)Education	• B.S., National Chung Cheng University (1995-1999)
(2)Experience	• Chief Executive Officer, Taiwan Film and Culture Association (2012-present) • Administrative and Programme Director, Huashan Spot Cinema (2012-present) • Marketing and PR Manager/Programme Manager, Taipei Spot Cinema (2007-2012) • Media Coordinator/Marketing Coordinator, Taiwan Film and Culture Association (2002-2007) • Coordinator of Marketing and Distribution Department/Digital Restoration Department, Sinomovie.Com Co., Ltd. (2001-2002) • Marketing Proposal Coordinator, Rock Records Co., Ltd. (1999-2001)
(3)Awards	• Innovative Trailblazer Team Award, National Industrial Innovation Award, 2017 • 12th Golden Thumb Awards, for Private Participation in Public Infrastructure, Ministry of Finance, 2014.

Acceptance Speech

9 years ago, I had my first child. Before that, I always thought about how to make myself better; but after I had my children, I started to think about how the future world can make them better.

I think the effort I should make is to constantly add the elements of innovation in my position and I should also cultivate new creators and train the next generation for the industry. We are obliged to prepare everything for them.

Thanks to my family education which let me learn to cooperate with people who are not perfect but have their own advantages. Thanks to my officer for giving me space and tolerating my making mistakes, so that I can break through the psychological comfort zone. I walk out of my familiar environment, and have the courage to try new models. Thanks to my partners for willing to stand with me through all the difficulties. They can both violently reform and act, and gently carry out the goals through gradual evolution and progression.

Finally, I would like to thank the long term support of our governmental authority, the Ministry of Culture, and the Ministry of Economic Affairs for the valuing and encouragement of cultural creative film and television industry.

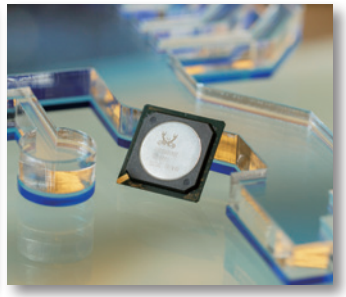
REALTEK

Shu-Yi Kao
Realtek Semiconductor Corporation

Individual Category
Innovative Elite Award
(Woman Group)

Simplify the Complexity!

Shu-Yi Kao,Director



Reasons for Winning

Director Shu-Yi Kao leads the Realtek Design and Technology R&D Department, which has installed more than 500 automation programs and innovative platforms that continuously assist IC design flow integration, shorten design cycle time, and improve product quality, thereby strengthening the competitiveness of Realtek products.

The results have been remarkable. In response to Realtek's development in overseas regions and the demand for international professional R&D talents, Director Kao has been actively planning and participating in overseas recruiting, assisting communication among the global teams, successfully leading the R&D team to grow, and rapidly attaining the team goals. Director Kao has also for years actively promoted cooperation and exchanges between industry and academia to complete research projects and deliver fruitful results. A number of her research and development achievements were published in renowned international academic seminars and journals, and have won relevant recognitions and awards, showcasing the strength of Taiwan's research and development to the international community.

Acceptance Speech

First of all, I would like to thank Chairman Yeh, President Alex Chiu, Vice President Alston Lin, and the leaders of all levels in Realtek Semiconductor Corporation for your support and guidance. Your trust and support have always been the driving force for me to grow and persevere. I am fortunate to be able to learn and contribute in Realtek, under the corporate culture of "Self-Confidence and Trust in People." It is with this spirit that I will continue to work tirelessly hard with my team.

Further, I would like to thank the members of my team. With such great partners supporting one another in our work, we have the courage to continuously confront challenges and move forward. Together we overcome difficulties and solve problems time after time, and make the impossible possible time and again.

Finally, I am very grateful to the organizers and the judges for your affirmation. My achievements today are rooted in the trust and support of Realtek and the efforts of my team partners. I would like to dedicate this honor to my superiors and all the team partners in Realtek!

Biography

(1)Education	• M.S. of Computer Information Science, National Chiao Tung University (1997-1999) • B.S. of Computer Information Science, National Chiao Tung University (1993-1997)
(2)Experience	• Director, Realtek Semiconductor Corp. (2015/02-present) • Engineer/Assistant Manager/Project Manager/Manager/Senior Manager/Deputy Director, Realtek Semiconductor Corp. (1999-2015)
(3)Awards	• RTL8715A won the BC Award, Computex Taipei, 2018 • RTL8762C won the BC Award, Computex Taipei, 2018 • RTL8195AM won the BC Golden Award, Computex Taipei, 2017 • RTD2995 won the BC Golden Award, Computex Taipei, 2015

Steven Jen
Wulink Cultural Creative

Only be thou strong and very courageous, turn not from it to the right hand or to the left, that thou mayest prosper whithersoever thou goest.

Steven Jen,
General Manager

Reasons for Winning

General Manager Steven Jen pioneered to merge the cultural creative ideas with martial arts, combining classical Tang poetry, martial arts culture, and self-defense skills to create an exclusive creative education system. Through the operation of direct/joined martial clubs, it breaks away the traditional martial arts teaching limitation. With clear target audience (TA) positioning through market validation, he imported platform management to fully build customer database, and gradually developed big data. Through the diffusion effect of teacher training, he promoted Tang poetry kungfu and made it an international mainstream knowledge. In addition, through the perfect franchise service and profit model, the company has created the only one-stop brand using cultural creative Education IP as a franchise, overseas agent distribution, teacher training certification and audio-visual authorization to open the first children's international martial art brand, and made Taiwan cultural creative industry visible overseas.

Biography

(1)Education	• iMBA, National Taiwan University of Science and Technology • Department of Combat Sports and Chinese Marital Arts, Chinese Culture University
(2)Experience	• General Manager, Wulink Corp. (2014-present) • Founder, Education system of Tang Poem Kung Fu. (2008-present)
(3)Awards	• Selected as Education Innovation 100, Education, Parenting and Lifestyle, 2017 • First place, Creative Value Added Competition, Ministry of Culture, 2014 • Selected for the "Sports Class Fun" Campaign of Sports Administration, Ministry of Education, 2013 • Selected for the 9th “Diageo Keep Walking” Dream Funding Program, 2012

Acceptance Speech

"Ten years it takes to grind a sword. Today I'm showing this sword to you." It has been just a decade so far since I started this business. This decade of experience, just like Jiadao’s poem, “the Swordsman (Jianke)” in Tang Dynasty, this "Swordsman" is full of lofty sentiment and poetic style. I hope that one day I will reveal my own light and demonstrate to more people to see, and live up to all those who have supported me for the past ten years.

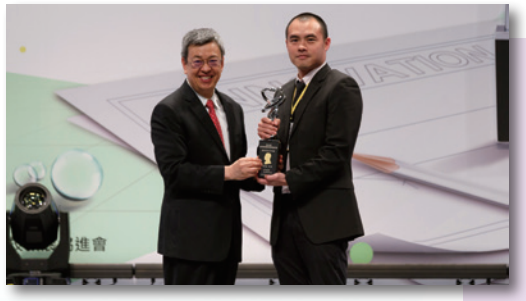
Winning this honor today is a great affirmation for me, my family, my company and my team.

I have a dream. I hope that Chinese culture can be closer to the public, and that culture education can take root from childhood. This simple thought made the dexterous "Tang poetry Kung Fu" born, and successfully created a whole new vision of children's national literature and character education.

Nowadays, under the innovative creativity of Wulink Cultural Creative, a new realm of "adept with the pen and the sword, and have both moral and conduct" has truly emerged in early childhood education community.

Later, there will be even greater challenges ahead. I will start from Taiwan in the future and make this brand the market leader in Chinese cultural education around the world. Let the world learn and love Chinese culture under the education philosophy of harmony between culture and martial art.

Hong-Chen Cheng
Taiwan Semiconductor Manufacturing Co., Ltd./
Memory Design Program



Study extensively, enquire accurately, reflect carefully, discriminate clearly, and practice earnestly.

Hong-Chen Cheng,Manager

Reasons for Winning

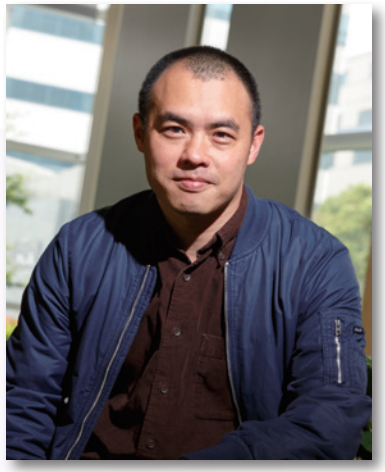
Manager Hong-Chen Cheng, who has been working on static random access memory for 15 years, has developed a number of inventive memory technologies, creating major development and reform in process miniaturization and helping the company achieve the leading position in the industry. He led the team to develop 16 nm automotive certified memory IP(intellectual property) and expand the field of semiconductor foundry vehicle electronics. He provided customized memory intellectual property core on TSMC Open Innovation Platform® (OIP), and achieved first-time silicon success in high performance computing, mobile, automotive and IoT products with good yield. And through TSMC Open Innovation Platform® (OIP), he provides most comprehensive and robust silicon-proven memory IP and library portfolio, and bring together the customers and partners under robust design ecosystem, technologies and manufacturing excellence.

Acceptance Speech

I am honored to receive this glory and thank the experts of the jury for their recognition. I am grateful to my company for their cultivation, especially my officers who have always promoting me. Because of their appreciation and affirmation, I have the constant motivation to grow and work hard. Besides, I would also like to thank my team and colleagues who accompany me to strive together. From small things to trivial chores, I can't get this award without the support of my colleagues. This is not only my personal honor but also the honor of the department team. With everyone's support and selfless dedication, I have the honor to accumulate today's glory.

I am grateful to TSMC for giving me the best stage to fight and strive, so that I can do my best for the company. The award is not the end but the starting point for excellence. I will continue to complete the company mission with the spirit of learning, probing, thinking and debating.

Finally, I want to thank my family for always supporting me and letting me face the challenges without any worries.

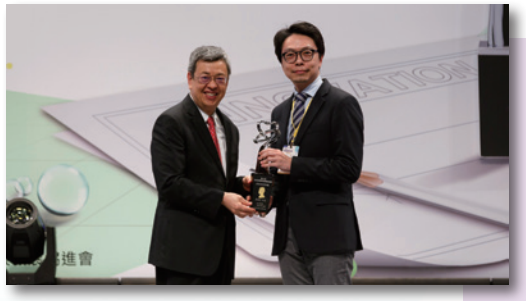


Biography

(1)Education	• M.S. Communication Engineering National Sun Yat-sen University (2001-2003) • B.S. Electrical Engineering National Sun Yat-sen University (1997-2001)
(2)Experience	• Manager, TSMC (2014-present) • Engineer/Senior Engineer/Project Leader Engineer/Assistant manager,TSMC (2003-2014)
(3)Awards	• Develop 16-nmautomotive memory IP(intellectual property), to attain AEC-Q100 (American Automotive Electronics Association) Grade-1 and functional safety standard ISO 26262 ASIL-B certification • Acquired 59 national patents, 36 of which are US patents

Ching-Hsien Tsai
Nuazure Innovative Technology Co., Ltd.

Individual Category
Innovative Elite Award
(Youth Group)



The road to innovation is bound to be lonely and difficult. It's the created value that counts.

Ching-Hsien Tsai,
Founder & CEO

Reasons for Winning

The founder and CEO Ching-Hsien Tsai adheres to the philosophy of "creating an e-book platform for everyone to publish works freely" and led his team to launch a one-stop e-book self-publishing platform combined with self-publishing, marketing and reading, "Pubu eBook " platform , which is ahead of Europe and USA. He employed information engineering technology to promote digital content technology innovation, subvert Taiwan's traditional publishing process, and construct a positive cultural creation and reading environment.

The service model is combined with the user's reading behavior to progress continuously, to create a smooth and comfortable digital reading service experience, and to cultivate a reading atmosphere in our country. With the integration technology which promotes Taiwan's cultural publishing and digital content industry and the innovation of ICT service model, it has become Taiwan's largest and the first digital content platform standing firm in the Southeast Asian market.

Acceptance Speech

First of all, I would like to thank the organizers for their appreciation and giving me this award. It is a great affirmation.

Taiwan's innovative energy has never lost to the international market. What is lacking is the scale of international integration. Only through economies of scale, innovation can make up for the lack of Taiwan's domestic market and realize the specific value of innovation.

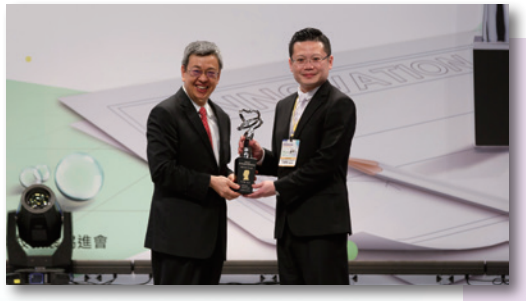
Taiwan is located in East Asia and is the hub of the Northeast Asian, mainland, and the Southeast Asian market. In addition to facilitating the operation of the international market, Taiwan has favorable geographical position to recruit international talents. I take this opportunity to encourage the entrepreneurs here: while carrying out innovation, we may take the international market into consideration and plan as soon as possible, also absorbing diverse international innovation talents and resources to maintain international competitiveness for sustainable operation and continuous innovation.

Biography

(1)Education	• Ph.D. in Computer Science & Information Engineering, National Cheng Kung University • B.S. National Cheng Kung University
(2)Experience	• CEO&Chairman, Nuazure Innovative Technology Co., Ltd (2009-present)
(3)Awards	• 23rd Innovation Research Award, Ministry of Economics, 2016 • Annual Outstanding Business Entity, National Taxation Bureau of Taipei, Ministry of Finance, 2016 • Highlights Enterprise Award - Innovation Services Category, Project of Subsidies & Incentives for Taipei Industry, 2014 • 100 I.T Innovative Elite, IT Month, 2013 • Gold Internet Award, Ministry of Economics - Shopping Mall, 2012 • Innovation and Technology Award (the only winner in the digital content category), Ministry of Economics, 2012 • Second Place, Jury Prize, IDEAS SHOW, 2011

工業技術研究院
Industrial Technology Research Institute

Yen-Hsiang Fang
Industrial Technology Research Institute / Electronics and Optoelectronics System Research Laboratories



Enriching myself with knowledge, gathering the supports from industries, accomplishing my goal step by step, are the essential elements in my career. Racing with our limited time on earth, I will work hard and be proud of what I achieve.

Yen-Hsiang Fang,
Deputy Division Director

Reasons for Winning

Yen-Hsiang Fang, Deputy Director, breaking away from the traditional LED industry chain framework, is good at cross-disciplinary coordination and technological innovation. He horizontally links semiconductors, ICs, PCBs equipment and packaging, jointly developed key technologies, and is committed to building the environment and resources required for micro-LEDs. He established micro-LED alliance, attracting first-tier international factories such as Japan S Company/US G Company to join and discuss about the key technologies required for system specifications. He also established a research platform for small-pitch display and large-size TV. He made good use of the strengths of Taiwan, as a global panel/LED/semiconductor/precision mechanical center, and connected the technology platform to establish the first micro-LED dedicated pilot line to produce the world's first micro-LED on PCB product, so that domestic technology can stand firm in international market.

Acceptance Speech

Thanks to the long-term resource support of the Chief of the Department of Industrial Technology (DoIT) , Ministry of Economic Affairs (MOEA), the cultivation of the ITRI in the past ten years, the trust of the supervisors. And more importantly, the hard-working brothers, for working overtime at night and on weekends, and the attitude of continuous improving yourselves and hard work have given me the opportunity to facilitate important industrial innovations and make a contribution to the Taiwanese industry.

Biography

(1)Education
- Ph.D. in Material Science & Engineering, NTU (2004-2008)
- M.S. National Cheng Kung University (2002-2004)
- B.S. Feng Chia University (1998-2002)

(2)Experience
- Deputy Division Director, ITRI (2017-present)
- Manager, ITRI (2013-2016)
- Project Deputy Manager, ITRI (2011-2013)
- Engineer, ITRI (2008-2011)

(3)Awards
- The 6th National Industrial Innovation Award, 2019
- The Second Prize of Outstanding Research, ITRI, 2018
- Outstanding Manager, Chinese Professional Management Association of Hsinchu, 2017
- The Third Prize of Outstanding Research, ITRI, 2014
- The Second Prize of Business Collaboration, ITRI, 2013
- Outstanding Engineer, Chinese Insitiute of Engineers, 2013
- Excellent Research and Development Alternative Service, National Conscription Agency Ministry of the Interior, 2012
- The First Prize by Military Service Training, National Conscription Agency Ministry of the Interior, 2008
- The First Prize of Phd Dissertation, Taiwan Information Storage Association, 2008
- Champion of Badminton Competition, duet race of entire university competition in National Taiwan University, 2008
- Champion of Badminton Competition, single race of entire university competition in National Cheng Kung University, 2004

James Ho
Giant Protech Co., Ltd.

Life is either a daring adventure, or nothing.

James Ho,President

Reasons for Winning

President James Ho is committed to the development of two-piece forged aluminum alloy wheel rims. He created his own brand, with innovative, safe and green energy concepts to enhance overall strength, reduce weight and increase variability. The products are suitable for more than 50 types of motorcycles on the market. The brand combines patents and practices and successfully enters the international racing industry chain. They develop lightweight wheel rims for all types of motorcycles. The market share of self-owned brands in domestic forged wheel rims has reached more than 50%, providing the selectivity of clients in performance improvement, meeting the M-type high-end customers in the market and creating brand value. They also cooperate with the well-known A-level champions in Japan to promote the integration of domestic racing with international racing industry.

Acceptance Speech

Thanks for everything that helps me become what I am now.

Biography

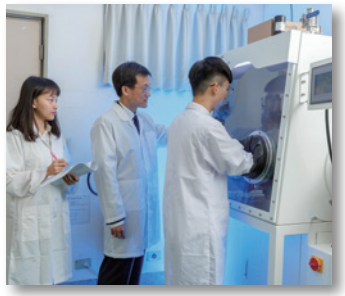
(1)Education	• Yuan Ze University (1999-2003) • Taichung Second Senior Hight School (1995-1998)
(2)Experience	• Deputy Manager, HauHau Industrial Co. (2003-2013) • Supervisor, Sesame Street after-class school (2000-2003)
(3)Awards	• Top Ten Outstanding Entrepreneurship Models of the 19th Jin Feng (Golden Submit) Awards

國立中興大學
National Chung Hsing University

Wei-Ping Dow
Department of Chemical Engineering,
National Chung Hsing University

Moral integrity is the first consideration in relation with other people and doing things. The attitude is active and aggressive and never give up. Pragmatic innovation is the primary thought of research and development.

Wei-Ping Dow,
Tenured Distinguished Professor



Reasons for Winning

Wei-Ping Dow Tenure Professor have developed the world's leading copper electroplating formula that can fully fill through-hole with a butterfly-shaped cross-section, and highly selective microvia filling copper plating formula, high aspect ratio through hole copper filling plating technology, and reduced graphene oxide direct plating technology. These technologies have respectively transferred to Japan, the USA, Germany and other international companies. It makes Dow Chemical Company (the United States) become the main supplier of Apple mobile phone for PCB manufacturing in the past five years. In 2014, he started an industry-university cooperation project with Changchun Group (CCPG), and introduced mass production to promote green processes and meet the requirement of nowadays global industry. Professor Dow has a special industry-university collaboration contribution to the semiconductor manufacturing process. He has 26 patents and implemented 59 industry-university collaboration projects. With excellent performance in industry-university collaboration, the total amount of technology transfer of industry-university collaboration is more than NT$100 million.

Biography

(1)Education
- Ph.D, National Tsing Hua University (1990-1995)
- Direct Pursuit of PhD Degree, National Tsing Hua University (1989-1990)
- B.S. Feng Chia University (1985-1989)

(2)Experience
- Consultant, Taiwan Printed Circuit Association (TPCA) (2016-Present)
- Distinguished Professor (II), National Chung Hsing University (2016-Present)
- Distinguished Professor (III), National Chung Hsing University (2014-2016)
- Professor, National Chung Hsing University (2010-2014)
- Associate Professor, National Chung Hsing University (2006-2010)
- Associate Professor, National Yun-Lin University of Science & Technology (2005-2006)
- Assistant Processor, National Yun-Lin University of Science & Technology (2001-2005)
- D&R supervisor, Electrochemical Inc. USA (2000-2001)
- Technology service engineer, Electrochemical Inc., USA (1998-1999)
- DRAM process engineer, Vanguard International Semiconductor Corporation(1997.08-1997.12)

(3)Awards
- Breakthrough Award of Future Technology, Ministry of Science and Technology, Taiwan, 2018.
- Outstanding Performance Award of Technology Alliance Project, Ministry of Science and Technology, Taiwan, 2018.
- Outstanding Award of Technology Transfer, National Chung Hsing University, Taiwan, 2017.
- Outstanding Research Award, Ministry of Science and Technology, Taiwan, 2015.

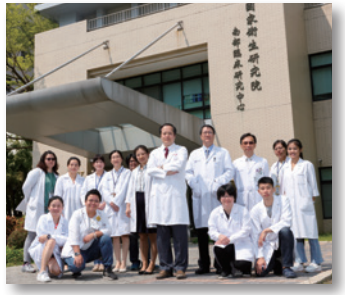
Acceptance Speech

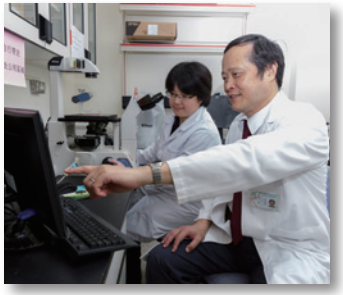
I am very grateful to the National Industry Innovation Awards of the Ministry of Economic Affairs for their highest honors and affirmations. I would like to thank the President Fuh-Sheng Shieu and Vice President Jenn-Wen Huang of National Chung Hsing University for their support and encouragement, so that I can have the space and platform to exhibit my performance. I also thank the teachers in Department of Chemical Engineering of Chung Hsing University, the senior fellows in academics and industry for their continuous help. Thanks to the teammates and all the students for their efforts for many years. And thank my family members for their accompany and support, so that I become stronger and stronger and have courage to face challenges. The glory is not only my personal honor, but also the common achievement of everyone. Thank you. I look forward to leading the team to progress continuously, with the attitude of active and aggressive and never give up, to develop pragmatic innovation, and make greater contributions to the economy for our country and society in the future.

Li-Tzong Chen
College of Medicine, National Cheng Kung University

The fun of clinical trials is to verify the results of preclinical studies or accidental clinical observations.

Li-Tzong Chen,
Adjunct Professor





Reasons for Winning

Adjunctive Professor Li-Tzong Chen is also the director of National Institute of Cancer Research, The National Health Research Institutes. He has long been dedicated to clinical research to improve the efficacy of advanced pancreatic cancer treatment and is involved in the early clinical development of the ONIVYDE® (liposome irinotecan) and target cancer search, assisting Taiwan's new drug development companies to successfully develop business cooperation, and authorize ONIVYDE® in a difficult new drug research and development environment. He also participated in subsequent pivotal clinical trials, confirming the use of ONIVYDE plus 5-FU/LV therapy in the follow-up treatment of patients with metastatic pancreatic cancer who have failed gemcitabine drug therapy. Being able to improve the treatment effect, it obtained drug certificates from the US FDA, EU EMA, etc., as an important milestone of new cancer drugs in Taiwan. He assisted more domestic manufacturers to invest in the development of new drugs for pancreatic and biliary cancer, to promote the development of new drugs and biotechnology industry, and to enhance the international visibility of clinical trial quality of our country.

Biography

(1)Education	• Ph.D. Post-graduate School, Kaohsiung Medical University (1992-2001) • M.D. Kaohsiung Medical College (1975-1982)
(2)Experience	• Adjunct Chair Professor of Internal Medicine, College of Medicine, Kaohsiung Medical University (2018-present) • Distinguished Investigator and Director, National Institute of Cancer Research, National Health Research Institutes (2014-present) • Adjunct Professor of Internal Medicine Kaohsiung Medical University (2012-present) • Adjunct Professor of Internal Medicine, Medical School, National Cheng Kung University (2008-present) • Attending Physician, Department of Internal Medicine, National Cheng-Kung University Hospital, Tainan (2007-present)
(3)Awards	• Chien-Tien Hsu Outstanding Clinical Research Award, the 8th Annual Meeting of Joint Taiwan Oncology Societies, 2003 • Outstanding Research Achievement Award, National Health Research Institutes, 2010 • The 3rd Kobayashi Foundation Research Award, the 11th international conference of Asia Clinical Oncology Society (ACOS), 2014 • Outstanding Clinical Research Award, the 24th Wang Ming-Ning Memorial Foundation Award, 2014 • Outstanding Research Award, Ministry of Science and Technology, 2014, 2017 • Distinguished Alumni Award (Academic), Kaohsiung Medical University, 2015 • Outstanding Biomedical & Biotechnology Award, the 12th TienTe Lee Biomedical Foundation, 2017 • Distinguished Award, Pin-Wen Lee Educational Foundation, 2017 • Gold Medal Award, Technology Transfer Award, 2018 BioTaipei Award, 2018

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.

Appendix

Ministry of Economic Affairs (MOEA)
Joint Award Presentation Ceremony

April 10, 2019















Appendix


產業創新成果
聯合頒獎典禮
改變時代
創新未來


108年 經濟部
產業創新成果
聯合頒獎典禮
改變時代
創新未來


產業創新成果
聯合頒獎典禮
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108年 經濟部
產業創新成果


108年 經濟部
產業創新成果

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

National Industrial Innovation Award (NIIA)
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