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for a better **future**

2017

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## Create a High-Quality Work Environment Cultivate Talent & Innovative Thinking

To improve employees' core capabilities, Institute for Information Industry (III) has constructed six comprehensive training systems to provide preparation for key organizational operations and work requirements at all levels and for all functions. In 2017, we focused on technological research and development, principal investigators, and innovation and entrepreneurial skills. We have cultivated employees' professional knowledge and skills in cloud computing, IoT, project management, industrial analysis, and plan operation. In addition, we also organized a series of book clubs and seminars on healthy living, insurance, and wealth management to expand employees' horizons and promote diversity in thought, with the purpose of creating an atmosphere of innovation within the organization.

In 2017, III selected outstanding supervisors for study, which included courses on management, intellectual property rights, technology transfer, innovation and entrepreneurship, in locations such as Seattle and Silicon Valley as well as the Future Leaders Program in Japan. The programs aimed to strengthen the supervisors' technological research skills and understanding of artificial intelligence, IoT, smart city, big data, and other sectors, expanding their international horizons, inspiring innovation, and building new interpersonal networks.

III has constantly focused on talent development and works hard to create a friendly learning environment. It was awarded a silver medal for the "Talent Quality-Management System (TTQS)" by the Ministry of Labor in 2017, which demonstrates III's outstanding performance in talent cultivation throughout the years.

In 2017, III continued to adopt diverse healthcare programs in accordance with the "work-life balance" policy of the Ministry of Labor (e.g., comprehensive health examinations in hospitals, on-site consultation by doctors, organization of related health promotion activities, etc.) to encourage employees to exercise more, maintain good health, and create a healthy and happy workplace. In addition to taking care of employees' physical health, we also care about their mental health. Therefore, we have partnered with professional psychological consultation service centers to introduce the Employee Assistance Program, which provides employees with comprehensive physical and mental care through professional consultation encompassing mental, legal, wealth management, psychological, and management services.

III also cares for the families and lives of its employees. Each year, III invited employees and their families to family hikes, outings, and other outdoor activities, which strengthen familial and professional relationships. In addition, we also developed a welfare app, I Benefit U, exclusively for employees. The app provides first-hand benefit information, including application for benefit events as well as subsidies for marriage, births, and bereavement. The steps are simple and quick.

III continues to give back to society. In addition to its "Endless Compassion" blood-donation activity, it has also implemented environmental protection efforts and organized a beach cleaning event on Earth Day, which resulted in cleaning more than one hundred kilograms of oceanic waste and was one step in protecting our beautiful homeland. III initiated a One-Day's Pay voluntary donation event in response to the Hualien Earthquake, and we shall continue to advance corporate social responsibilities and do our part in helping society.

[Read more about Careers →](#)



Educational Background Structure (%)



Main Offices (%)



Data prepared: June 1, 2018

## Strategies for Strengthening Patent Portfolios, Industrialization of Scientific and Technology Development Programs

III implements cross-industry digital transformation services through top applications, smart services, environmental construction, network and communication sensors, and smart manufacturing. III enables the industry to stay up-to-date with the digital economy and engage in continuous improvement. We empower manufacturers to expand into international markets and increase the application and scale of our technological innovations. It is our aim to fully commercialize and industrialize scientific and technological advances. We developed an automated demand-response system that meets OpenADR 2.0b international standards and has received OpenADR Alliance compatibility certification. III ranks only second to the NTT in Japan as a certified entity in Asia. We also work with Taiwan Power Company in the Trial Automated Demand-Response Project for Air-Conditioning that reduces up to a quarter of power consumption for air conditioning in trials conducted among 18 users, including the Taipei Mandarin Oriental, Taipei 101, Carrefour and the Kinmen Wind Lion Plaza. The system uses technology to reduce peak power consumption and resolve the power supply crises. This technology has been transferred to more than 432 companies over the past three years and has led to a total investment of NT\$16.9 billion (as in Figure 1). We accumulated more than NT\$120 million in income from technology transfers in 2017, which accounted for approximately 16.3% of technology development expenses. There were 6 cases that involved high-efficiency technology transfer with a value of more than NT\$5 million.

Since 2017, III has intensified its patent analysis and strategic-portfolio building by training a dedicated team to assist with specific patent portfolio projects and to provide patent portfolio proposals. We have applied for key patents in suitable countries or territories for related technologies and have increased the industrial-application value of our patents. III has applied for an average of 263 patents each year over the past three years. The ratio of domestic to international patent applications in 2017 was 1: 2, with 98.8% for inventions and 1.2% for utility-model patents. The 10 top areas of our patents are: communication systems, human-machine interface technologies, multi-mode and heterogeneous networks, multimedia communication, virtual/terminal networks, comprehensive video/audio processing, other multimedia technologies, image processing, vehicle navigation, and data security technologies.

III has formed patent technology classifications including: Wireless network communication systems, wired network communication systems, embedded systems, cloud computing systems, multimedia technologies, vehicle-mounted ICT technologies, electronic digital data processing technologies, environment control and sensory technology, and information security technologies. We have also created thematic patent portfolios based on the research and development of each Institute, including IoT/loV wireless communication technologies, big data & cloud computing, smart mobile commerce and healthcare technologies, smart precision machinery service technologies, and log analysis information security management (see Figure 2). III expands the application of its patented technologies based on the needs of domestic ICT companies through technological transfer, patent authorization, and patent transfers.

III actively advances patents and improves the quality of patent applications. It participated in the invention contest at the 2017 Taipei International Invention Show and Technomart, where the patent for "device and method for producing and verifying voice signature of a message" received the highest prize (platinum award), while the "control device and control method for dynamically adjusting power of small-cell base stations" and "automatic chip breaking in a cutting machine" patents each received the silver award.

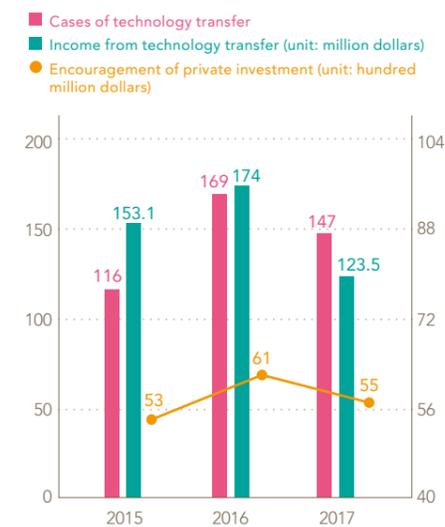


Figure 1: Cases of technology transfers and income over the past 3 years  
 Note: Including science and technology development projects and assigned projects

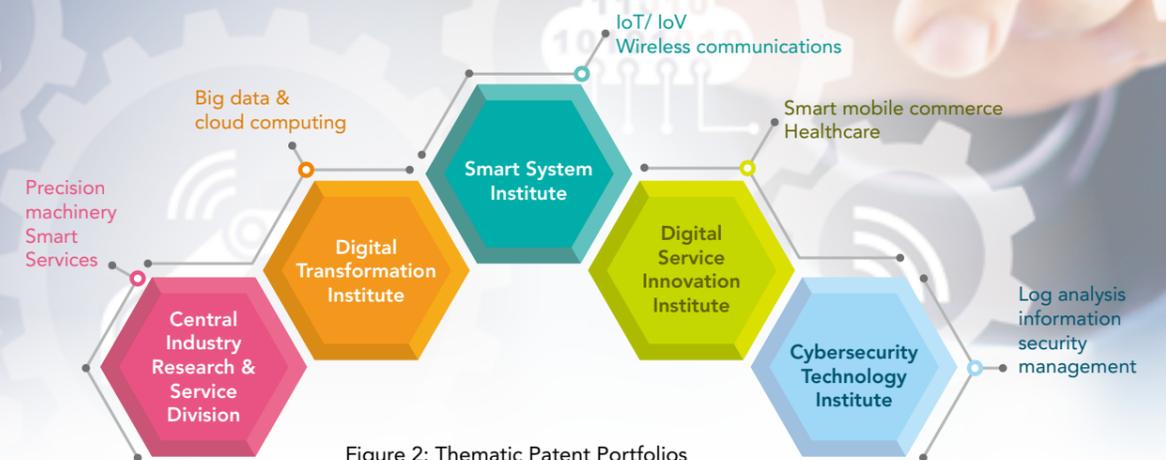


Figure 2: Thematic Patent Portfolios

Number of Patent Applications and Patent Awarded in the Past Three Years

Country/Region	2015		2016		2017		
	Number of Patent Applications	Number of Patents Awarded	Number of Patent Applications	Number of Patents Awarded	Number of Patent Applications	Number of Patents Awarded	
Asia	Republic of China	86	101	92	88	80	86
	Mainland China	64	13	80	32	78	44
	Hong Kong	0	1	1	0	0	0
	Japan	7	3	3	7	2	9
	Korea	3	6	0	1	0	2
	Thailand	1	0	0	0	0	0
	Philippines	2	0	1	0	0	0
North America	Malaysia	0	0	1	0	1	0
	United States	83	31	100	59	75	54
	Canada	2	1	1	2	0	2
Europe	European Union	7	0	5	3	4	1
	United Kingdom	5	1	2	3	1	2
	Germany	0	1	0	0	1	0
	France	0	0	0	1	0	1
<b>Total</b>	<b>260</b>	<b>158</b>	<b>286</b>	<b>196</b>	<b>242</b>	<b>201</b>	

→ Spotlight 01

International Division

# WCIT: Bringing Taiwan's ICT Soft Power to the Global Stage

The World Congress on Information Technology (WCIT) took more than two years of preparation and integrated 12 government agencies, 26 bureaus, divisions, and departments, 8 municipal governments, 58 companies and legal entities, all to accomplish a milestone event for the global ICT industry. III played a key role behind the scenes.

Taiwan held the WCIT in 2000. After 17 years, Taiwanese brands have contributed to diverse industries, being able to demonstrate the best traits and advantages related to the ICT industry. Thus, Taiwan renewed its intention of hosting the WCIT in 2014, with the aim of reshaping the image of Taiwanese brands by shifting from hardware manufacturing to soft-power solutions. The biannual WCIT was organized in Brazil in 2016; India was set to host the event in 2018. However, the WCIT made an exception by designating Taiwan as the first station of the WCIT tour in Asia for 2017. This additional event proved that WCIT recognizes Taiwan's ICT strengths and capacity to host international conventions.

The process of organizing the WCIT was full of challenges. First of all, knowing that funds required for the organization of large-scale international events are considerable, III expresses its thanks to the government for their support, which also contributes to the confidence of participating companies and legal entities. The second major challenge was inviting lecturers; the organizers consulted multiple entities before inviting young, potential stars. They also invited prominent speakers from the Czech Republic and the United States, as well as the former French Minister of Culture.

The third challenge lay in attracting participants. The International Division of III mobilized all of its employees to invite partners from various countries, as well as partners who were set to organize training camps in Taiwan that year, so as to concentrate events during the exhibition period. As a result, representatives from more than 75 countries and 2,733 domestic and foreign dignitaries, including approximately 900 foreign guests, attended the event.

Teamwork constituted the fourth challenge. The WCIT requires an ad hoc team that facilitates cross-agency integration, communication, and coordination. It is a considerable challenge for teams to work together and reach consensus and understanding. The fifth challenge lay in the effect of diffusion. Hosting an event successfully is only part of the goal; we must expand and increase influence so that the event can come to a successful conclusion.

During the exhibition in a roundtable meeting formed for the occasion, the WCIT promulgated the Digital Dream (Digital Nation) Declaration, jointly announced by ministers from four countries, to continue the advancement of the Digital Nation Alliance and form long-term, cross-border cooperative platforms. In addition, the WCIT also published "Taiwan is Bigger than You Think," a book that recounts the story of 50 greatest events in the development of the ICT industry in Taiwan. The book was on display at the exhibition and allowed the world to witness Taiwan's strengths in ICT industry development.

The success in organizing the WCIT proved that Taiwan's hard work in advancing ICT technology industries throughout the years has provided opportunities for professionals in the industry, from all across the world, to try and experience the prestige of Taiwanese products. International exhibitions for promoting our brand help to establish Taiwanese brands' leading position in ICT soft power and provide more opportunities to raise them on the global stage.



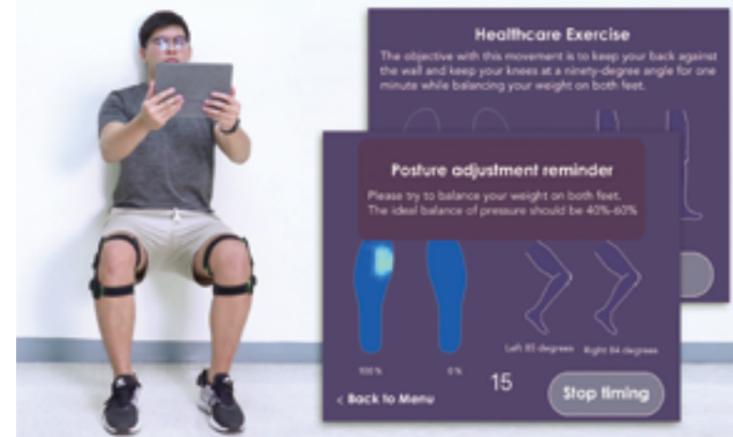
→ Spotlight 02

Digital Service Innovation Institute

# SaFePlay: Innovative Lower-Limb Health Monitoring Solution System

Technology innovation is often driven by demand. Rehabilitation from sports injuries is long and arduous. Thus, III has developed Smart Footwear Platform, SaFePlay " so that rehabilitation is not hindered by limits in space and equipment; the platform provides users with a motion monitoring assistant similar to traditional biomechanical measurement equipment that can also help doctors monitor the status and rehabilitation progress of patients in real time.

SaFePlay Healthcare Application - Wall Squat Posture Reminder



Current solutions for measurements of lower-limb movements rely on large-scale stationary equipment during rehabilitation follow-up. Patients are required to make their way to the rehabilitation center and take on the high costs of professional therapists, site, and equipment. Smart Footwear Platform, SaFePlay was developed by III along with teams consisting of Professor I-Ping Hung of the Graduate Institute of Networking and Multimedia of National Taiwan University, Dr. Rong-Sen Yang of the Department of Orthopedic Surgery of National Taiwan University Hospital, Professor Jung-Tang Huang of the Graduate Institute of Mechatronic Engineering of National Taipei University of Technology, and Professor Chun-Chung Chen of the Department of Physical Therapy and Assistive

Technology of National Yang-Ming University. SaFePlay goes beyond traditional restrictions by integrating wearable devices, analysis of lower-limb biomechanics, and feedback technologies. It also connects smart, sensor-equipped insoles and knee braces to apps specially dedicated for instantaneous upload onto cloud platforms. The system quickly analyzes lower-limb biomechanical data, and integrated gaming designs to increase user willingness for rehabilitation.

SaFePlay provides a set of light yet highly operational sport and health assistive monitoring tools that can be adopted to the rehabilitation sector as well as fitness and sports fields as assistive tools to be used for training by coaches or healthcare professionals. It is able to continuously monitor biomechanical data and provide data on the users' lower limbs during training and daily activities; this helps prevent injuries and improves performance. They can be used to provide users with suggestions and feedback, and improve the fitness training services while maximizing performance with scientific training method.

The Smart Footwear Platform (SaFePlay) was awarded the Red Dot Design Award in Germany in 2016. It was subsequently lauded in 2017 when it received the Innovative E-Health Solutions Award from the World Information Technology and Services Alliance, known as the "Olympics of the ICT world," as well as the National Innovation Award in Research Innovation Award, which aims to uncover domestic innovative and entrepreneurial technologies. SaFePlay also received recognition as a finalist in the "Oscars of the technology world"—the R&D 100 Awards.

III is currently working with sports equipment, medical services, and hardware providers to introduce SaFePlay into professional realms, where experts can promote technology related to healthcare and fitness groups. Its software and hardware integration promotes data analysis services and marks an upgrade in manufacturing. We have established partnerships with domestic sports industries and we aim to jointly develop sports technologies and smart applications and products. Furthermore, the technology platform can also be used in additional applications and promotion in entertainment & leisure and healthcare & social services to create a more mature market for wearable applications.

Smart Footwear Platform, SaFePlay

→ Spotlight 03

Smart Systems Institute

## High-Tech Peak Reduction Alleviates the Power Supply Crisis

Global warming and climate change have led to governments across the globe investing their resources in the development of alternative energy sources and energy conservation technologies to protect the Earth.



Power consumption in Taiwan has rapidly increased as it hits historical heights each year. Peak usage is mostly during the heat of summer, particularly from 1 to 3 p.m. You may think that power consumption comes from large-scale users; though in truth, they use power mostly for production, which depends on the number of purchase orders and is unrelated to ambient temperature. The biggest variable for overload during peak hours is still air-conditioning equipment.

To resolve the issue of increased power consumption, III has participated in the National Energy Program since 2010 and has developed an automated demand-response system that meets OpenADR 2.0b international standards and has received OpenADR Alliance compatibility certification. The technology has been widely adopted by power companies in the United States, Japan, China, Australia, Korea, and Hong Kong. III ranks only second to the NTT in Japan as a certified entity in Asia.

III collaborated with the Taiwan Power Company (TPC) to develop Taiwan's first Air-Conditioning Automated Demand-Response Verification System, which can be applied to TPC and high-voltage users. It has adopted a two-year trial automated demand-response project for air-conditioning to verify the effectiveness of peak shaving through automated demand response.

Traditional approaches to remind large-scale users to reduce power consumption during peak periods have been implemented through manual communication and coordination through fax. The number of large-scale users that can be reached by this method is limited and effectiveness is low. Through systematic evaluation, the "Automated Demand-Response Verification System for Air Conditioning" uses information technology to replace manual labor, making it possible to concurrently communicate and coordinate power consumption among tens of thousands of large-scale users. It can even perform planned outages or make prompt, same-day dispatches to reduce the power supply pressure and increase peak shaving performance.

Users currently participating in the system include large-scale shopping malls, hotels, and public agencies. Based on the performance, it can reduce up to a quarter of power consumption for air conditioning by allowing room temperatures to increase by approximately one degree, which is within the scope of tolerance. Participating users receive a rebate from the TPC based on the quantity of saved electricity, which means saving money while helping the environment. We hope this system can be expanded from large-scale users to the average household in the future to truly implement planned power consumption reduction and make it habitual.

→ Spotlight 04

Cybersecurity Technology Institute

## Advance Smart Cybersecurity Research and Applications to Create a New Era for the Industry

The spread of the WannaCry virus across the globe demonstrated that cybersecurity protection can no longer effectively prevent attacks by new forms of malicious programs. It also proves that cybersecurity paired with artificial intelligence (AI) now leads new development trends in the industry. Therefore, Institute for Information Industry (III) has developed dual-use military and civilian smart cybersecurity and new application integration technologies, with the intent of using smart cybersecurity core technologies to drive growth in the industrial chain of the industry. III aims to use AI to strengthen cybersecurity, which will in turn serve as a bulwark to national security.

Compared to the past practice of relying highly on interactive operations between people and equipment, the value of III's AI smart cybersecurity core technologies lies in its automatic extraction of environmental information for information exploration, model building, and applications. It removes the need for manpower in traditional identification methods for model building, maintenance, and updates, and uses smart methods to create unique "user behavior models."

It integrates three major core development technologies, including machine weakness sensory detection and analysis, deep learning threat defense, and cybersecurity threat information collection and analysis to provide companies with AI cybersecurity threat and anomaly detection technologies that can quickly and flexibly respond to threats posed by new forms of malicious programs. In addition, III also uses talent cultivation, technical tests, trial site verification, and international exchange to help industries form comprehensive structures that promote industry upgrades.

Since the advancement of AI cybersecurity technologies, III has cooperated with FineArt Technology (cybersecurity monitoring) and AIC Inc. (server manufacturer) for product innovation and joint development of smart cybersecurity technologies to add value to existing products. III has also entered inter-organizational collaboration with the Telecom Technology Center to commercialize malicious email detection and protection and market operations. Products are expected to reach NT\$1 billion in market scale. In addition, III introduced the cybersecurity threat platform into Chun Shin (TOEIC), Tiger Air, and Tatung and launched the smart cloud inspection and electronic document system for the public sector to create new cybersecurity applications and services for operators in multiple industries. In addition, the technology also assisted 2 companies with a combined market value of more than NT\$10 billion in strengthening potential backdoors and loopholes in their IP Cam firmware and established smart cyber product inspection standards to bring products independently developed in Taiwan in line with the world.

III used CIIP (Critical Information Infrastructure Protection) trial site verification and talent cultivation to strengthen the domestic AI cybersecurity ecosystem. III cultivates more than 100 next-generation cybersecurity experts each year and targets the Asia Pacific region and New Southbound Policy to advance international markets.

In the future, III will continue to assist the industry in talent cultivation, product testing, CIIP verification, and internationalization. It will also construct an OISP advancement platform and an industrial ecosystem to advance next-generation, national-level cybersecurity development and opportunities.



## Global Presence and Experience

In order to actualize the vision of "Techno-Cultural Synergy, Innovation Unbounded", III actively engages in international collaboration to advance cutting-edge technologies and to elevate its R&D capabilities. III works with Taiwan's ICT industry to build an integrated marketing platform, aiming to accelerate business development in the regional markets of Southeast Asia, India, the Middle East, Africa, North and South America, the Caribbean, Japan, and Greater China, to name just a few.

### INTERNATIONAL COLLABORATION

III engaged in international collaboration projects, bringing benefits of its engineering expertise and management skills to ICT projects across the globe.

To support internationalization of Taiwan's ICT & information service industries, III expands its global network and develops exchange platforms to create business opportunities through collaborations with significant strategic partners. Promoting international collaboration and business as well as bridging the global digital divide are III's main goals.

The focus of collaboration is to expedite R&D undertakings, research progress and the expansion of joint international technology research through close collaboration with foreign enterprises and research institutes to advance technology, set technological standards, and elevate the competitiveness of ICT applications

To boost international business for Taiwan's ICT and information service industries, III cultivates professional talent for the domestic industry, promotes business incubation, market development, and technology exchanges. Besides supporting businesses, III also works closely with the government to help bridge the global digital divide by setting up more than 101 APEC Digital Opportunity Center (ADOC) and 10 Taiwan Digital Opportunity Center (TDOC) for the disadvantaged people in many regions throughout the world. Besides achieving its intended goals, the ADOC and TDOC network also helps promote the visibility of Taiwan's ICT technologies and their penetration into the emerging markets of the Asia Pacific region.

III has also been active in promoting the exchanges and cooperation between Taiwan and Japan, for both private enterprises and local governments, based on the principle of reciprocity and mutual benefits with an aim to invigorate local economies as well as create win-win situations for both countries. To date, many new technology alliances have been forged between the enterprises of the two countries, and there is a significant increase of Japanese investment in Taiwan's technology sector due to such effort, and this trend will be continued.



### EASTERN EUROPE

- Czech Republic · Appointment / Registration System  
· iiiGuide Solution
- Poland · iiiGuide Solution

### NORTH AMERICA & CARIBBEAN

- USA · Information Security Testing
- St. Lucia · E-document Exchange  
· PKI system  
· G-Net
- St. Vincent · Consultancy for ISO 27001 (Info Security)  
· Programming Training  
· e-document exchange

### MIDDLE EAST & AFRICA

- Bahrain · E-Govt Training Course and Workshop
- Saudi Arabia · Healthcare Training
- Kuwait · ICT & Science Park Consulting, GIS  
· Training, Attendance System  
· Basic Manufacture Models Consulting  
· REU  
· Disaster Mitigation Consulting
- Oman · Virtual Innovation Center Consulting
- Sao Tome · E-Govt Consulting & Training  
· G-Net
- Swaziland · National Data Center Consulting  
· Intelligent Transportation  
· Network Forensics  
· Mobile Commerce Consulting
- Burkina Faso · ICT Training  
· Digital Inclusion

### SOUTH EAST ASIA

- Malaysia · Green Energy  
· SME ICT Enabled Cluster Consulting
- Thailand · E-Govt Exchange Training Program
- Singapore · ATE (Auto Test Equipment) Station for SMRT (Singapore Mass Rapid Transit)  
· KD8 : Mobile shopping APP generator
- Vietnam · E-Govt Consulting for Ministry of Communication

#### International Cooperation

- Overseas Offices
- Projects / Partners

## International Partners

III has partnered with the leaders from governments, industry and academia worldwide to establish international networks and platforms for collaboration in both technology and business development to benefit all parties involved. With international partners and overseas offices in Tokyo, Kuwait City, Yangon Myanmar, and Chennai India, III is well connected globally, and primed to assist Taiwan's ICT industry in extending their global reach.

R&D Partners				
				
				
Business Partners				
				
				
Venture Capital Partners				
				

## International Research Cooperation

In the recent years, under the support of the Ministry of Economic Affairs (MoEA) Taiwan, III has forged alliances with European research institutes and companies. Currently, III has maintained a close relationship with more than 30 EU research institutes such as INRIA, TNO, Fraunhofer, CEA-Leti and VTT, etc, and have participated or facilitated Taiwan ICT enterprises in more than 10 EU projects. In 2013, the IoT Forum was established and III was invited to become one of its founding members. Through this network, III's research teams also joined the EU-funded projects such as Clear5G in the area of 5G, IoT projects in the area of Smart Energy and Smart Commerce.

III engages in three types of international research collaboration models:

### Joint Research Collaboration

This type of research collaboration includes bilateral and multilateral international collaboration projects where individual participants contribute to the project goals collaboratively set by all participating parties, and each party is responsible for its own budget.

### Contract-Based Research Collaboration

III conducts technology research services, personnel training, and market analysis for international organizations and government agencies on a contractual basis.

### Talent Exchange

The purpose of the talent exchange is to give engineers from III and partner institutes exchange opportunities so that participants can gain new experiences, competencies and relationships. Talent exchange projects provide hands-on experience for engineers from both sides of the participating parties.

## International Business Collaboration

III, in cooperation with Taiwanese institutes and industry partners, endeavors to promote and deliver ICT technologies, solutions and services to the international markets. The focus of the business collaboration includes training, consulting services, proof of concept, proof of services, and proof of Business.

### Training and Marketing Events

III and our industry partners have conducted technology training and marketing events in many fields and topics ranging from e-Government, Smart City, Internet of Things (IoT), Cybersecurity, Big Data and Cloud Systems, to name a few.

### Proof of Concept/Service/Business

III and our industry partners have implemented many successful international proofs of service projects in the fields of smart agriculture, e-Marketing, smart energy solutions and e-learning.

### Project Consultancy Services

III and our industry partners have provided consultancy services for e-Government initiatives, Government network solutions, IT project management systems, reverse engineering workshop, and numerous other topics.





### Research Reports

Research reports are available for purchase, which contain selected publications from our Industry Intelligence Programs. MIC's Research Reports are presented in several report types, including statistical reports, topical reports, and Monographs—a comprehensive collection of research studies that help our clients to have a full spectrum of knowledge on various topics.

### Industry Intelligence Programs

MIC's Industry Intelligence Programs (IIP) are subscription-based programs that provide an in-depth look at a wide range of ICT sectors, including communication, computing, consumer electronics, and display. Subscribing to these programs is the best way for our clients to be kept informed of the latest industry development in their business area. IIP subscriptions are valid for one year and subscribers are also entitled to many of MIC's regularly issued practical and informative intelligence reports.

### International Events

As an internationally recognized advanced information society, Taiwan can be a development model for many countries which aspire to quickly transform themselves into an advanced information society. To this end, III organizes various events / workshops to share the "Core Competence and Experience" with international partners, focusing primarily on government policies, R&D, business development, and entrepreneurship programs, etc.

Here are some examples:

#### · IDEAS Show

Launched in 2008, IDEAS Show serves as a significant annual event to cultivate entrepreneurship of innovative services in Taiwan. As the event progresses it is shaped to align with the actual market requirements and trends. Participating teams are divided into categories and go through a vigorous 6-minute demo/pitch, each team showcases their idea and business plan to a panel of veteran entrepreneurs, business owners and investors as well as media. Only the winners of each category will present a keynote at the highlight of the IDEAS Show before a large audience, allowing them to gain publicity and press coverage, increase users, and most importantly attract investment. In the past 3 years, the IDEAS Show also partners with international accelerator and global venture capitals, allowing the nascent start-up to gain international exposure, foreign investment and potentially international market. To date, this program has accelerated more than 1,000 teams and accumulated a total investment of NTD 4.36 billion. III aims to provide the best support for startups and facilitate their development globally. This event has been recognized and sponsored by APEC since 2016.

#### · Smart City exchange platform

European cities are normally densely populated with rich cultural life, active citizen participation, and highly developed and convenient public transportation systems. In the past decades, sustainability and low-carbon footprint figure prominently in the awareness and pursuit of the citizens and planners of many of these cities. All these are important hallmarks of smart cities, and the success of many European cities has also made them the models for the promotion of smart cities around the world. To promote smart city development and business opportunities for related ICT solution vendors, III together with the Taipei Computer Association and the New Taipei City Computer Association, organized several delegations to participate in B2B matchmaking events in some of the model smart cities in Europe (i.e. Rome, Amsterdam, Eindhoven, Barcelona, and London), and held international conferences and hosted many multilateral visits.

#### · Facilitating major Japanese companies to invest in Taiwan

III's Taiwan Japan Industry Center has long supported the Panasonic Group's cooperation projects in Taiwan. In addition to helping Panasonic Group build Taiwan's first smart low-carbon house in Tainan City, TJIC also facilitated Panasonic Group's requirements for transition in recent years. Panasonic Group has focused on home appliances in the past. In addition to appliances, the Group will also advance development in smart housing, electric vehicles, and large-scale energy conservation.

TJIC also arranged visits for government officials to Panasonic's headquarters in Taiwan, to learn its strategy & advance technology and organized the Panasonic Taiwan Day in Taiwan to help Panasonic Taiwan obtain the support of the head office. TJIC facilitated Panasonic Group Chairman Kazuhiro Tsuga's meeting with Minister Shen in 2018 and the announcement of the establishment of the Global Kitchen Appliance Production and Sales Base and the Asia Vehicle Electronics Development Center to intensify cooperation with Taiwan.

## Other Cooperation and Exchanges

### Professional Cultivation

The goal is to increase the technology proficiency of ICT professionals in Taiwan and to help these individuals succeed in their personal careers by using the most effective learning methodologies. III has been conducting ICT training programs to help provide a skilled workforce for the rapid development of the information technology industry in Taiwan since 1979. With decades of experience in education and training, III has trained more than 460,000 professionals in various technical fields. The impact has spread to the government, academia and research institutions.

### Multinational Talent Exchange

To foster the continual growth and competitiveness of the gaming industry, III sets up an exchange platform for the young entrepreneurs and game developers in both Taiwan and Japan to collaborate and tap into one another's ideas and talents while instilling a sensitivity to and awareness of other cultures which are critical in gaming design for the global market. Coupling this platform with an incubation program, III helps aspiring young entrepreneurs to start their own business by providing necessary coaching in technical and management aspects of running a business as well as other assistance.

### Market Intelligence Consultancy

III's Market Intelligence & Consulting Institute (MIC) is positioned to provide intelligence, insight, and unique perspectives on the ICT industry which are necessary for our clients in the government and industry to make winning strategic decisions. In a dynamic ICT environment, its regional insight uncovers nascent trends and untapped opportunities—regional insight is the core competence of MIC's research.

## International Projects



### Kuwait KISR Reverse Engineering Unit (REU) Program

The Kuwait Institute for Scientific Research (KISR) is a longstanding partner with IIT. The main goal of this project is to establish a highly professional and fully functional reverse engineering unit. Adhering to ISO standards, at the conclusion phase of this project, KISR's Reverse Engineering Unit (REU) will be equipped with the latest equipment, instruments, software such as 3D, CAD, CAM, CAE, and the know-how to deliver high quality prototypes for mechanical components as well as the blueprints for their potential Commercialization opportunities.

The REU consulting team has completed the SOPs for producing over 50 major equipment parts and trained REU staff during the course of the project.

Three model cases were completed for KISR research centers including the Energy and Building Research Center (EBRC), the Water Research Center (WRC), and the Petroleum Research Center (PRC). Upon the successful completion of these projects, the REU lab has collaborated with other research centers within and outside KISR for future projects and business opportunities including smart medical technology, which require a high level of customization for meeting patients' needs.

<b>Location</b>	Kuwait
<b>Project name</b>	Reverse Engineering Unit Consulting Project
<b>Client</b>	Kuwait Institute for Scientific Research (KISR)
<b>Project Duration</b>	2014-2019



### EU Taiwan Clear5G Project

Clear5G aims to investigate and demonstrate some of the key enablers necessary to support Machine Type Communications (MTC) traffic in 5G networks, in particular in the Factories-of-the-Future (FoF) environment. The Clear5G applications focus on FoF environments employing time-critical processes, relying on timely delivered data from massive numbers of sensors, and having to make and execute decisions in less than milliseconds. Clear5G will deliver technical solutions addressing the challenges of massive deployment of connected devices, security, ultra-low latency and ultra-high reliability in FoF applications, like remote maintenance and closed loop control systems. The requirements of these complex scenarios will be met through the convergence of different wireless technologies, enabled by protocol and architecture enhancements proposed by Clear5G.

Clear5G will focus on providing physical, medium access control, and architectural enhancements to meet the strict requirements of FoF applications in terms of KPIs: latency, reliability, connection density, spectrum, and energy efficiency, thus contributing to the ITU-R objectives (e.g., 1000 fold connection density) for the next generation mobile network.

<b>Location</b>	EU / Taiwan
<b>Project name</b>	Clear5G Project
<b>Cinsortium</b>	TNO, U of Surrey, Toshiba, CEA-Leti, Argela, FFG, ADLINK, IIT and Turk Telekom
<b>Project Duration</b>	2017-2020



### Facilitating the signing of a memorandum of understanding between Taitung County and Mie Prefecture

TJIC has advanced cooperation between Japan and Taiwan for long periods of time and selected key areas in Japan for expansion. Since 2012, it has facilitated the signing of industrial cooperation MOUs between the Taiwan-Japan Industrial Collaboration Promotion Office (TJPO) of MOEA and 7 local governments including Mie Prefecture, Wakayama Prefecture, Kochi Prefecture, Ehime Prefecture, Kagawa Prefecture, and Kagoshima Prefecture in Japan. The parties aim to cultivate special enterprises (biomedical technologies/ machinery/foodprocessing/environmental protection etc.) bilaterally and to facilitate international collaboration for the development of special local industries.

<b>Location</b>	Japan
<b>Project name</b>	Taiwan-Japan Industrial Collaboration Promotion Office
<b>Client</b>	Local Gov., Japan
<b>Project Duration</b>	2012-2020



### Swaziland Intelligent Transportation System (SWITS) Project

The main purpose of the project is to assist Swaziland Government in establishing an Intelligent Transportation System (ITS). Through the incorporation of a full-fledged ITS (including real-time traffic monitoring and traveler information, Changeable Message Sign (CMS), traffic control center, smart traffic data collection, etc.), when the traffic is congested, information can be collected, messages can be distributed, and accidents can be avoided. The goals of enhancing the traffic and public security/safety can therefore be achieved.

<b>Location</b>	Kingdom of Swaziland
<b>Project name</b>	Swaziland Intelligent Transportation System (SWITS) Project
<b>Client</b>	Swaziland Government
<b>Project Duration</b>	2016-2018



See more IIT's international projects

# 2017 MAJOR EVENTS

**01 01/16**  
III-developed In-Snergy System, Showed a range of a new Intelligent Energy Saving solutions for Families at the 2017 International CES.

**02 02/11**  
Taiwan Developed Smart Glasses Applying A/R for Medical Surgery to film a documentary.

**03 03/08**  
Representing 4 Taiwan Major Museums, III CADC Aligns with Japan DNPAC in Licensing Digital Image International Market, Setting a Meaningful Milestone in Ages.

**04 04/07**  
III and CSC Group jointly develop Smart Glass related software solutions, creating a safer industrial working environment and to escalate efficiency.



**05 05/03**  
Microsoft and III Collectively launch the First Data Scientist Certificate and Cultivation Program in Greater China, expecting starting in late May 2017.



**05/03**  
ITRI and III jointly Integrate Software and hardware, Strengthening the Links between Firms of the Value Chain, and to enhance Taiwan's ICT industrial core competitiveness.



**06 06/06**  
III Signs MOU with Asprova, the Largest Schedule Visualization System Provider in Japan, to jointly Establish a Taiwan Service Center.



**06/21**  
III Invites Domestic ICT Industries to Break Through the New South Asia and Middle East Market.



**06/30**  
President of Facebook AI Research (FAIR) Praises Taiwan for Software and Hardware Integrated Environment Forging AI Advantages.

**07 07/26**  
III continues to co-work with APEC to host 2017 IDEAS Show! AI remains the hottest topic! Linkcross Lab, Theia Tech, I AM COMPANY, dipp, and Fix Games win the annual Jury awards.



**08 08/02**  
III Helps Taiwan's Digital Content Enterprises cooperations with Bangkok Establishing more Economic Opportunities with ASEAN Countries.



**09 10 10/18**  
Dr. Chih-Kung Lee has served as the Chairman of III since October 18, 2017.

**10/18**  
III Officially Launches Social Innovation Lab, to Integrate the Development Chains and Build a Demonstration Area for Social Innovation in Asia.



**10/27**  
III and ITRI Collaborate on International Project to Promote Smart City Cloud Service in Vietnam.



**11/1**  
Mr. Hsiao-Pin Yu, CEO of III, took office on November 1, 2017.



**11/2**  
III Cooperates with NTU, TTIA, and 6 Associated Enterprises to Announce the Safety Warning System on Smart Motorcycles at the ITS World Congress 2017.



**11/23**  
III Builds the Bridge for Taiwanese Firms to Access Information Communication Business Opportunities in Bulgaria. Former Minister of Foreign Affairs of Bulgaria Visited Taiwan and Signed MOU.

**11 12 12/15**  
III and Bangkok School of Management jointly organized the International Smart System Training Camp and Expanded the ICT Soft Power of Taiwan.



See more  
III's major events



# FINANCIAL REPORTS

## • Statements of Comprehensive Income

Unit: Million NTD

Account	2017	2016
<b>Total revenue</b>	<b>\$ 5,537</b>	<b>\$ 6,025</b>
Technology development plan revenues	1,690	2,181
Technical service income	3,709	3,667
Revenue derived from service plan	80	89
Non-operating income	58	88
<b>Total expense</b>	<b>\$ 5,528</b>	<b>\$ 5,907</b>
Technology development plan disbursements	1,692	2,204
Technical service disbursement	3,696	3,558
Disbursement derived from service plan	80	89
Non-operating expenses	70	34
Income tax benefit (expense)	(10)	22
<b>Net surplus</b>	<b>\$ 9</b>	<b>\$ 118</b>
<b>Other comprehensive income (loss), net</b>		
Loss on remeasurement of defined benefit plan	(3)	(14)
Share of other comprehensive income (loss) of associates accounted for using equity method	4	(2)
Income tax relating to components of other comprehensive income	-	2
<b>Other comprehensive income (loss) for the year</b>	<b>\$ 1</b>	<b>\$ (14)</b>
<b>Total comprehensive income for the year</b>	<b>\$ 10</b>	<b>\$ 104</b>

## • Balance Sheets

Unit: Million NTD

Account	2017	2016
<b>Assets</b>		
<b>Current assets</b>	<b>\$ 3,664</b>	<b>\$ 3,708</b>
Cash and cash equivalents	863	865
Investments in debt instruments without active market - current	1,374	1,232
Accounts receivable, net	1,019	737
Prepayments	62	72
Restricted assets	308	780
Other current assets	38	22
<b>Non-current assets</b>	<b>\$ 2,383</b>	<b>\$ 2,788</b>
Pension funds	458	432
Financial assets measured at cost - non-current	67	37
Investments in debt instruments without active market - non-current	272	761
Investments accounted for using equity method, net	510	516
Property and equipment	327	309
Investment property, net	310	313
Intangible assets	327	310
Deferred tax assets	35	24
Other non-current assets	77	86
<b>Total assets</b>	<b>\$ 6,047</b>	<b>\$ 6,496</b>
<b>Liabilities and Equity</b>		
<b>Liabilities</b>		
<b>Current liabilities</b>	<b>\$ 1,764</b>	<b>\$ 2,242</b>
Notes payable	8	101
Accounts payable	570	628
Other payables	821	991
Current tax liabilities	2	9
Receipts in advance	321	352
Other current liabilities	42	161
<b>Non-current liabilities</b>	<b>\$ 981</b>	<b>\$ 962</b>
Net defined benefit liability, non-current	876	859
Deferred tax liabilities	12	10
Other non-current liabilities	93	93
<b>Total liabilities</b>	<b>\$ 2,745</b>	<b>\$ 3,204</b>
<b>Equity</b>		
Funds	\$ 700	\$ 700
Other surplus	4	4
Accumulated surplus	2,594	2,588
Other equity	4	-
<b>Total equity</b>	<b>\$ 3,302</b>	<b>\$ 3,292</b>
<b>Total liabilities and equity</b>	<b>\$ 6,047</b>	<b>\$ 6,496</b>

# 2017 ACCOLADES

## WITSA 2017

Smart Glasses System "Remote Master" and Smart Footwear Platform "SaFePlay" won the WITSA 2017 Mobile Excellence Award and the Innovative eHealth Solutions Award. **1**

## 2017 eAsia Award

III won the 2017 eAsia Award First Prize in the category of Creating Inclusive Digital Opportunities. **2**

## 2017 Finland Education Innovation Global 100

III Smart School Alliance Awarded 2017 Finland Education Innovation Global 100 for Innovative Digital Education Projects.

## Horizon Interactive Awards

"Class Fu" and "iCampus Promotion Film" developed by III's Digital Education Institute, won Horizon Interactive Awards.



See more Honors of



1

2

# DOMESTIC & INTERNATIONAL OFFICES

## TAIWAN OFFICES

### Digital Service Innovation Institute (DSI)

8F., No.133, Sec.4, Minsheng E. Rd., Songshan District, Taipei City 105, Taiwan, R.O.C.  
886-2-6607-2000

### Digital Transformation Institute (DTI)

Rm. D, 5F., No.133, Sec. 4, Minsheng E. Rd., Songshan Dist., Taipei City 105, Taiwan, R.O.C.  
886-2-6607-2900

### Smart System Institute (SSI)

7F., No.133, Sec. 4, Minsheng E. Rd., Songshan District, Taipei City 105, Taiwan, R.O.C.  
886-2-6607-3888

### Cybersecurity Technology Institute (CSTI)

14F., No.133, Sec. 4, Minsheng E. Rd., Songshan District, Taipei City 105, Taiwan, R.O.C.  
886-2-6607-8900

### Digital Education Institute (DEI)

<http://w3.iiiedu.org.tw/>  
11F., No.153, Sec. 3, Xinyi Rd., Taipei 106, Taiwan, R.O.C.  
886-2-6631-6666

### Market Intelligence & Consulting Institute (MIC)

<http://mic.iii.org.tw/>  
19F, No. 216, Sec. 2, Dunhua S. Rd., Taipei 106, Taiwan, R.O.C.  
886-2-6631-1200

### Science & Technology Law Institute (STLI)

<http://stli.iii.org.tw/>  
22F, No.216, Sec. 2, Dunhua S.Rd., Taipei 106, Taiwan, R.O.C.  
886-2-6631-1000

### International Division (ID)

9F., No.106, Sec. 2, Heping E. Rd., Taipei 106, Taiwan, R.O.C.  
886-2-6631-8500

### Southern Industry Service Division (SID)

3F-3, No. 2, Fuxing 4th Rd., Kaohsiung, 80661 Taiwan, R.O.C.  
886-7-966-7299

### Central Industry Research & Service Division (CID)

No.2, Wenxian Rd., Nantou City, Nantou County 540, Taiwan, R.O.C.  
886-49-600-3775

### Taiwan Japan Industry Center (TJIC)

Rm. C, 5F., No.133, Sec. 4, Minsheng E. Rd., Songshan Dist., Taipei City 105, Taiwan, R.O.C.  
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