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The joy of work and
the realization of goals
Delta Electronics
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FROM THE EDITOR

At the end of May, Delta was invited by the U.S. Green Building Council (USGBC) to participate in the first International Green Building Symposium (IGBS) in Taiwan. With the corporate mission "To provide innovative, clean and energy-efficient solutions for a better tomorrow", Delta presented its promotion of green energy data centers, smart buildings and low-carbon buildings. At the Symposium, USGBC awarded the world's first LEED ID+C Platinum Certification to the IT Data Center of Delta's Head Office, and LEED Gold Certification to Delta's Chungli R&D Building, highlighting Delta's leading position in green data centers and green building technology.

Meeting the needs of its customers with Building Automation Solutions, Delta continues to develop a variety of system solutions for smart buildings. We introduce into these projects of diverse applications the core concepts of smartness and automation. In the "Special Report" of this issue, we share how the Delta Building Automation Team has built an energy-saving, comfortable and smart office building for OPYC through advanced innovative technologies, including VIVOTEK's people-flow counter, LOYTEC's building control system, and Delta Controls' building control software enteliWEB.

In previous "Brand People" articles, we have interviewed executives of Delta Group/subsidiaries in automation and infrastructure, to show our readers the Delta's development strategies. In this issue, "Brand People" features Mr. Dalip Sharma, President of Delta EMEA. Delta Brand News interviewed Mr. Dalip Sharma from the perspective of region as well as the organizational adjustment of EMEA at the beginning of this year. We asked him to share with us the deployment planning of EMEA, as well as his experience working at Delta for over 15 years.

At COMPUTEX 2019, Delta built a comfortable and energy-saving "Delta 8K Green Theater" with its "Building Automation Solutions" and "Microgrid Solutions", combining it with the world's leading 8K projection technology. Delta has continuously focused on the trend for developing smart manufacturing, presenting its product technologies at Japan's Techno-Frontier and at Italy's SPS Parma Exhibition. We also joined hands with Anhui's Fuyang Normal University to create an extendable data center solution. More news of greater industry recognition for Delta has been pouring in from the Delta HR Department, including the recent rating by Cheers as the 13th "Most Desired Enterprise in the New Epoch 2019" (3rd in the science and technology manufacturing industry) and as one of the Top 20 Happy Enterprises in the "Science and Technology Industry Happy Enterprise Awards 2019" by the 1111 Job Bank, as well as receiving an earlier "Transformation Award" by LinkedIn. More brand news is available in this issue's "Brand Circle".

In "Delta Green Life", we take you to visit the Catholic Franciscan Spirituality Centre in Daxi, Taoyuan, to see how the principles of sun-shading, heat dissipation and dehumidification are applied to architectural design to create a green church in harmony with Mother Nature. Do not miss this issue's "People" column, as our Delta Electronics (Shanghai) Co., Ltd colleagues have some exciting stories to share with you.

Brand Management Office



Delta builds a comfortable, energy-efficient office building for Oriental Petrochemical

Delta builds a comfortable, energy-efficient office building for Oriental Petrochemical

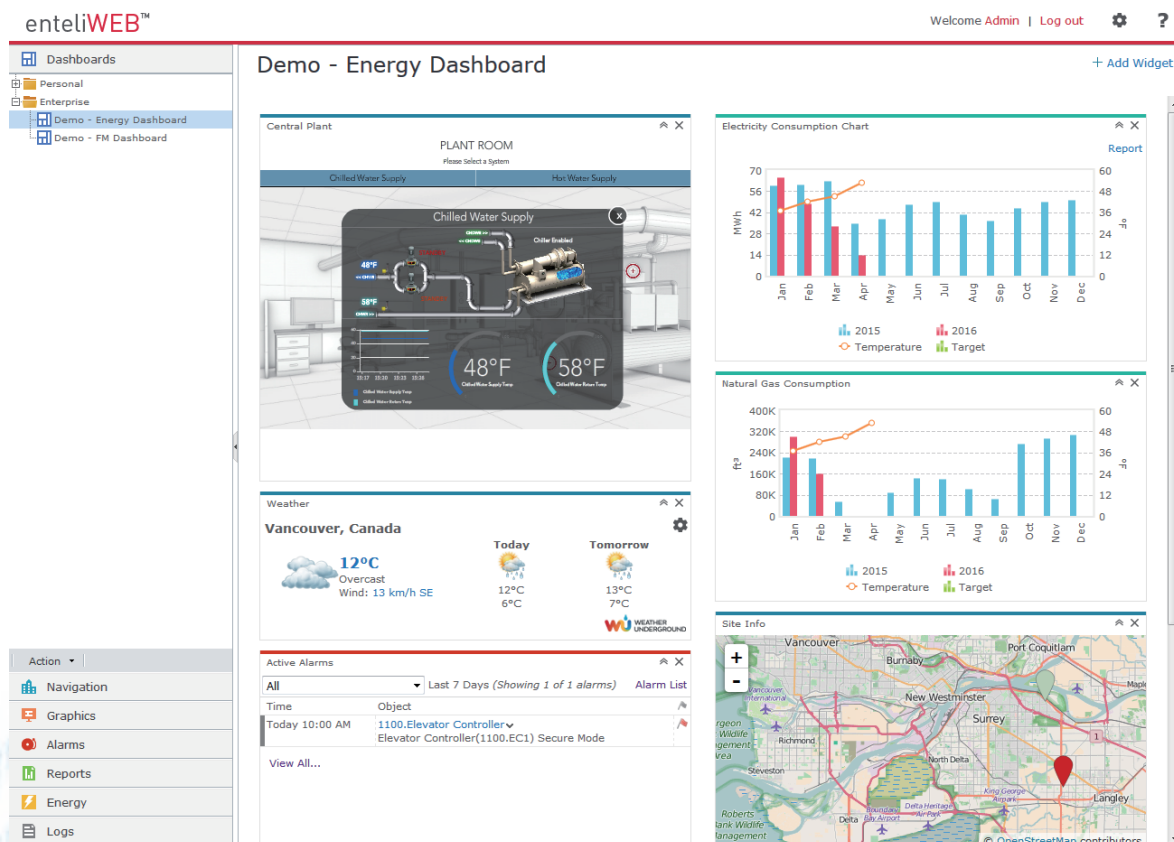
Text by BABG

Delta offers practical experience with its professional building automation solutions, when setting up systems in smart buildings and satisfying custom requirements. With intelligence and automation as its core concept, Delta designs intelligent monitoring systems for different area needs. Integrating various subsystems within the building effectively reduces operational management costs while enhancing the system's energy efficiency.



To achieve the goal of building an “energy-efficient” building, Far EastOne Telecommunications (FET), which has vigorously developed its IoT, communication, and smart building technology in recent years, valued Delta’s building automation experience and worked with Delta to introduce a new automated intelligent building management system. Together, they assisted Oriental Petrochemical (OPTC) to quickly create a human-centric, management-efficient and energy-saving office space.

The administrative building of the L3 Plant of OPTC has four floors above ground and one floor underground. The total floor area of the building is about 9,264 square meters. To achieve an intelligent building with a single management platform and cross-system integration and intelligent monitoring, Delta adopted the web-based building control software enteliWEB from Delta Controls as its central monitoring platform for its complete building automation solution. In addition to visual display equipment, energy use status, and alert notification, remote monitoring can be accessed by the administrator through a web operation interface.



Delta Controls building management software enteliWEB visually manages multi-site building equipment, programming, and energy analysis through a web interface

At the same time, it also worked with LOYTEC building management and control systems that support various open communication protocols such as BACnet and Modbus, to efficiently integrate air conditioning, fire protection, elevators, access control, lighting, restroom personnel and safety monitoring, power/hydraulic monitoring, and an environment monitoring system. A number of building subsystems can be integrated through Delta's smart building management and energy monitoring platform, including:



Air-conditioning system: The LOYTEC L-INX automation server supports the characteristics of the BACnet communication protocol. The VRV air-conditioning system is integrated with the central monitoring system, which can automatically start and stop, adjust the wind speed and temperature according to the site environment and schedule, and instantly monitor the equipment status, system abnormal return, and more. The central monitoring system integrates the air conditioning system with other subsystems to enhance the intelligence of the building.

Energy Monitoring System: The online monitoring system from Delta Energy provides flexible energy monitoring tools to customize the appropriate analysis reports on energy usage to help managers track energy consumption. It enables real-time monitoring of building energy consumption, as well as analysis and management of main equipment loops and floor power. Real-time alarms are generated for important anomaly values, and event information is recorded in the system to improve response speed and enhance overall power safety.

All energy consumption history values are stored in the SQL database for easy access to various queries and analysis, or integration with other third-party systems. Through the analysis tool from the energy management system, data on energy consumption can be automatically converted into various charts, and the charts can be viewed by multiple people through web browsers, thereby achieving requirements for improved management efficiency.

In addition, with the ModBus communication protocol support, L-INX can integrate lighting, fire protection, elevator power regeneration system, PV system, indoor air quality monitoring system and others to have real-time monitoring by the central monitoring system.

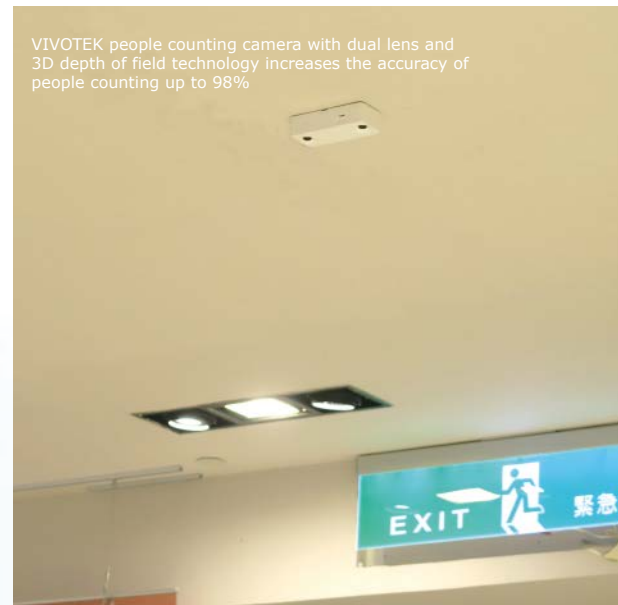
In response to different space requirements for various areas of the administrative building, such as halls, conference rooms, personal offices, public office spaces and restrooms, Delta provides a corresponding intelligent monitoring system with a area-specific application design featuring active sensing of environmental information and automated monitoring technology.

For example, an access control facility is set up at the entrance of the control area of the lobby for checking personnel entering and exiting. The VIVOTEK people counting camera provides the dynamic statistics of people count in the building. The number of people in the building can be accurately counted, which improves employees' and visitors' safety.

For the supervisor's personal office, it integrates and controls indoor lighting, air conditioning and other equipment, and senses environmental values such as temperature and CO₂. When the sensor detects the supervisor entering the office, it automatically turns on the lighting and air conditioning. The air conditioning equipment adjusts automatically according to the actual environmental conditions and create a comfortable and energy-saving office environment. The public office area can also automatically operate according to schedule to avoid energy waste.

The people counting camera, installed at the entrance of the restroom, features the U-Turn path judgment function, which accurately counts the number of people entering and exiting, while preventing misjudgment caused by people changing directions. If the people counting camera finds that there are still people in the restroom during off-hours, an alarm is automatically sent to the central monitoring system to remind management to check the safety of personnel and property in the building. Each floor walkway is equipped with a motion sensors linking to the lighting system. Once a person is detected, the system automatically turns on the lights and adjusts the illumination according to the actual natural light.

VIVOTEK people counting camera with dual lens and 3D depth of field technology increases the accuracy of people counting up to 98%





To more effectively track energy consumption and find out the potential for energy savings, Delta Energy Online, an energy management system, collects energy consumption data from digital meters and water meters for further energy analysis and reporting.

Delta's Building Automation solutions transformed the administrative office building into a smart building that achieves the following benefits:

1.Reduces operating costs by cutting unnecessary use

Remote monitoring improves management convenience and efficiency. Through personnel detection or scheduling control linked to the equipment operation, equipment malfunctions caused by personnel negligence is eliminated, and energy waste is reduced.

2.Increases facility utilization and asset value

Instantly tracks the usage of each facility, operates according to demand, avoids idle time, and enhances the value of assets.

3.Creates safe and comfortable working environment

Through environmental monitoring, users can understand the air quality and ensure personnel safety. Abnormal situations can be dealt with immediately to create a safe, comfortable, and healthy working environment, while improving working efficiency.



Delta's Building Automation solution creates a smart, safe, energy-efficient and comfortable office building for OPTC



Mr. Dalip Sharma, President of Delta EMEA

Innovative thinking and diverse strategies benefit the brand

Exclusive Interview with Mr. Dalip Sharma, President of the Delta EMEA

Text by Brand Management Office

Our previous introductions of brand people included exclusive interviews with directors of the automation, infrastructure, electric vehicle units at Delta Group and its subsidiaries to help colleagues understand the company's development direction and strategy. This issue of the brand bimonthly starts from the perspective of region. To cope with the organization adjustment of EMEA earlier this year, we have an exclusive interview with Mr. Dalip Sharma, President of the Delta EMEA. We invited him to share with us the EMEA layout, blueprint planning, and his over 15 years of working experience at Delta.



Meeting local conditions and ensuring market competitiveness with leading technologies

The EMEA scope covers Europe, the Middle East and Africa, which is composed of developed, developing and undeveloped countries. Mr. Sharma makes clear that there are opportunities in all regions and to gain synergies business must be developed with the appropriate operating strategies for different environments. This has been his long-term pursuit since he became the President of EMEA.

Before he took charge of EMEA, Mr. Sharma once worked as Delta's General Manager of Delta India and was responsible for business operation and management. He has a very rich experience in market development and he applies this working experience to the new post. "It is the only way to listen to the customer and rapidly reflect market demands with outstanding research and development capability". Mr. Sharma said that he had many opportunities on the frontline during his work in India. He spent a lot of time in cooperation with customers to understand market demand. Under his leadership, the EMEA will set two goals for the future. The research and development team must maintain close communication with the front-end business. Besides having a product road map connected seamlessly with the market, the R&D team is also expected to develop standard products and successful cases that can be copied everywhere. As Delta has gradually become the leading energy saving solution provider for product manufacturing, but a future key issue is to build a one-stop service platform.

As the EMEA plans for the future, Mr. Sharma considers the EMEA's important strategic position in the business development of Delta. As policies and market demands in countries change rapidly, only improving technology and developing high-quality products ensures Delta's consistent competitiveness. Delta's success is based on choosing the right cooperation partners and creating core technologies that are difficult for competitors to copy. Delta has always insisted on building a favorable ecosystem and delivering an excellent user experience to end users.



Delta's chief brand officer, Ms. Shan-Shan Guo (3rd from the left), Delta's spokesperson, Mr. Jesse Chou (2nd from the right), Delta's president for the EMEA region, Mr. Dalip Sharma (3rd from the right) and business managers in the EMEA region share innovative solutions with media at the 2019 Hannover Messe press conference



Combine resources from everywhere and strive for business opportunities

With many years of sales experience, Mr. Sharma shares with us his EMEA business opportunities and development strategy. "The popularization of 5G will open up new business opportunities in telecommunication infrastructure, data center and other applications." Business opportunities will develop in upgrading network communication, microgrids, renewable energy, telecommunication infrastructure, data center and traffic electrification, which are also Delta's focus. As far as microgrid and renewable energy, Delta has projects under construction in the Middle East and Africa. Delta also assists customers with the import of telecommunication infrastructure and data centers and match with the core technologies of edge computing. Delta's electric vehicle charging development has also received attention from customers in the EU market, especially France. Mr. Sharma says that the EMEA is carrying out close cooperation with these BU/BGs to guarantee that product solutions match different market segments, and provide customers with an excellent user experience and high level of customer satisfaction.

In terms of brand operation, Mr. Sharma also shared his opinion, "Delta can improve its brand image only by maintaining product competitiveness and coordinating with the environment and market opportunities of different places". The product is the most direct brand communication tool, but the reason customers choose Delta is because of our differences from competitors. The goal we constantly strive for is how to guarantee our advantages and how to constantly improve the brand image to benefit Delta in the market.



Stick with the goal and try the best to create future value

With over 15 years of work experience in the Delta, Mr. Sharma shares his ideas, "Grasping any opportunity for change in the workplace can create infinite possibilities for your own future. When Delta purchased Ascom, where I worked at the beginning of 2003, I was allowed to make a small contribution to a large family." He says that all levels must be linked together for the success of an organization. When he first became a member of Delta, he learned the products, solution development and business sales with the close cooperation of the director, colleagues and subordinates. This laid a solid foundation for his promotion to a managerial position.



Mr. Dalip Sharma with managers of the Executive Committee kick off a meeting of Delta EMEA

"I am proud to be working at Delta. For me, the practical and innovative spirit of Delta had already existed in my genes." Mr. Sharma offered encouragement to all colleagues at the close of the interview.



Delta ESS applications in IoT

Delta ESS applications in IoT

Text by ESDBD

The discussion of energy issues in recent years has given ESS an increasingly important role. Aside from smart grids and the improvement in power supply reliability with renewable energy, IoT can also provide data warnings, instant control and other scenarios. In this issue of "IoT-Based Smart Green Solutions", we are happy to share firsthand information from the ESDBD that introduces the diverse IoT applications of ESS.





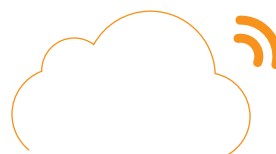
Smart Grid

The smart grid has developed over the years, where ICT and analog or digital technologies are used to collect supply-end power supply data and load-end consumption data. This allows power companies to understand the performance of power supply and consumption, which they use as reference for power allocation planning.

In recent years, the demand for new power plants has increased due to the rise in the peak load of the supply of power. Power grid instability is also worsening due to the increase in the proportion of power supplied by renewable energy power plants. These all have an impact on the continued operations of commerce and industry. Delta's Battery Energy Storage System (BESS, also referred to as ESS) is now being considered by business owners for its more efficient adjustment and its power supply. Its main application range includes: renewable energy balance, frequency regulation, micro-grid, commercial and industrial applications, home / residential ESS, and others.



The main application scope of a Li-ion energy storage system (ESS)





Smart ESS

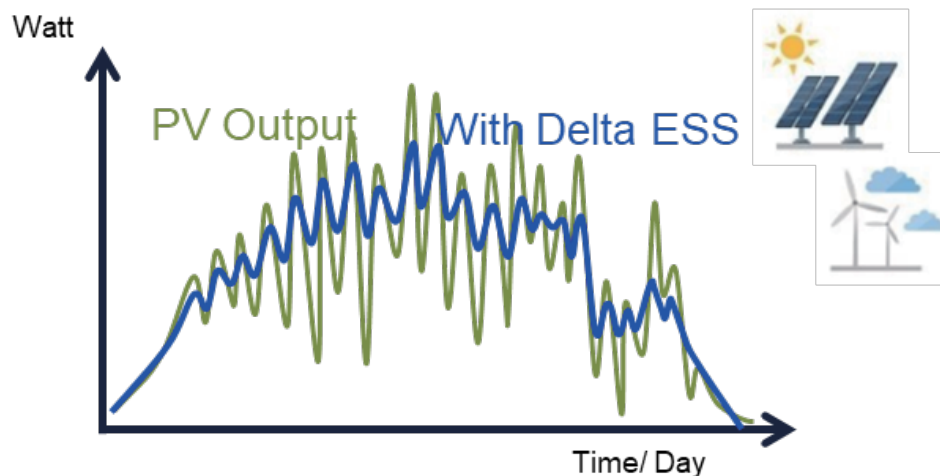
An ESS must respond to the site load or actual changes in the grid, and work with IoT technologies to achieve instant control. The smart functions are divided into external and internal system operations. The internal system controls the operating status of the battery energy storage system (BESS), with many built-in sensors of various functions to obtain battery conditions, cabinet (IT rack cabinets) interior ambient data (humidity, temperature, and others), signals of the warning system, and more. It automatically controls the air conditioning system and the fire system, manages and protects the battery, and provides feedback through an Internet connection. Business owners can instantly process, respond and allocate through remote control. The external functions use the smart meters on the main power circuit device to read the power consumption and supply data, and conduct smoothing for the renewable energy output, frequency regulation, load shifting and other functions using the algorithm planned by the built-in site controller based on the business owner's demands.

Delta's ESDBD has completed several successful projects in the application of renewable energy and micro-grids. In 2017, the Taiwan Power Research Institute in Shulin installed its first grid-level ESS. By the end of 2018, two more systems were installed and in operation. One is the Kaohsiung Yongan PV power plant, and the other is the Chinese Petroleum Corporation (CPC) Smart Green Energy Gas Station in Chiayi.

1. Kaohsiung Yongan PV Power Plant

The Kaohsiung Yongan PV Power Plant, built in 2011. The total area is 9.45 hectares, with a PV capacity of 5 MW, and an overall annual power generation of about 6 million kWh.

However, to improve PV power generation efficiency, to build a 1MW / 1.1MWh ESS. This ESS improved PV power generation performance with PV smoothing, frequency regulation, and the reduction of stress on the grid created by violent variations in renewable energy power.



ESS helps reduce the variation rate of output power generated by solar power (PV smoothing)





IoT SMART SOLUTIONS

The power generated from renewable energy and ESS operating status onsite are sent back to the command center through the cloud. The client can learn about and evaluate the generation and storage performance here. In case of any abnormal signals from the ESS itself, instant diagnostics and simple handling processes are accessible via remote control. Based on the diagnostic results, staff can arrange to bring proper gear onsite for repairs.



ESS installed at the Kaohsiung Yongan PV plant

2. CPC Chiayi Smart Green Energy Station

CPC has recognized that there is an increasing demand for the charging of electrical vehicles in Taiwan, particularly electrical scooters. A Chiayi Xinyi gas station became a smart green energy demonstration site after being equipped with 100kW PV capacity, a quick-charge/go station for electrical scooters, and Delta's 250kW / 500kWh ESS.



The Delta ESS installed at the CPC Smart Green Energy Station demonstration site seen at the opening of the station



This is an example of a micro-grid in operation. The ESS stores renewable energy, supplies high power for electrical scooter quick-charging and the power consumption of the gas station operation. For power generation, storage and supply applications, clients access related information and conduct analysis via remote control over the Internet, while staying in contact with Delta. This allows the overall system to perform as expected, and to become a reference for future green gas / charging station installations.



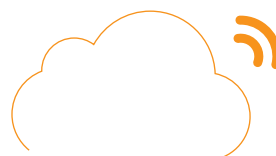


For industrial or commercial power consumption cases, Delta is also in talks with potential business owners. Industrial or commercial power demands often involve daily maintenance costs, value supply stability, and demand response.

Power supply stability: An ESS is a buffer between the grid and the load. If the load on the grid is suddenly reduced, the load end can still operate normally through the ESS. This avoids a sudden load reduction that may result in the power being tripped off, business losses, or even danger to personal safety, in locations such as at department stores, shopping malls, airport terminals, or other transportation ground support operations.

Demand response: The load end has a distinct behavior for power consumption during peak hours. To avoid overloading on the load end, a high number of contract violation fines may accrue. The load end and the power company often negotiate on contract power consumption using peak hour standards which increase power consumption costs and have low benefits for the operation of the grid. The introduction of an ESS balances peak hour consumption and lowers the contract power consumption standard in the long term. This reduces power consumption costs for business owners, and increases power consumption efficiency.

As in the descriptions above, industrial and commercial power consumption require instant collection and analysis of data for regulation. Delta's ESSs are all equipped with external communications ports, so that business owners can easily access information online that can provide a basis for strategic decision-making.





Delta's 8K green theater debuts at COMPUTEX 2019

Text by Brand Management Office

Delta showcased its products at COMPUTEX TAIPEI 2019 with the theme "Delta 8K Green Theater". Through its world-leading 8K projection technology, together with gift station and theater café, Delta was proud to present "Smart Building Solutions" and "Microgrid Solutions" that meet the IoT frameworks. In the theater zone, Delta's building automation made use of technologies such as tunable white lighting, indoor air quality monitoring, people counting, smart demographic identification technology, and others, to create a comfortable and energy-saving movie viewing experience. To combat the current challenge of energy resources scarcity and to resolve problems that everyone faces, Delta introduced "Microgrid Solutions", an energy storage system and EV charging solution, and together with a renewable energy system and power conditioning system, it provided various extended IoT applications.

For smart buildings, Delta cooperated with its subsidiaries Delta Controls, and VIVOTEK to showcase smart lighting, smart security monitoring, and its enteliWEB platform, for monitoring building energy and electromechanical infrastructure. In its microgrid zone, Delta exhibited its AC EV charger, AC Mini, AC Mini Plus, and V2H/V2B/V2G chargers, which support electric car bidirectional charge and discharge. This makes an electric car not only a mobile energy storage device but also a power source.

Delta's consumer power brand, Innergie, showcased the world's smallest all-in-one 60-watt Innergie 60C Pro USB-C charger, which supports the charging of mobile devices such as notebooks, Tablet PCs, and mobile phones. For car chargers, the Innergie 30D 30-watt dual USB-C quick charger uses an exclusive temperature detector and InnerShield protective chip. It detects charging temperature at all times, and prevents high temperature generation. Together with heat resistant materials and a patented structural design of multiple safety mechanisms, consumers can enjoy the safest charging experience while driving.

Delta also used wireless collaboration products NovoTouch and NovoDS 4K digital signage systems, together with Vivitek's projector-related products, to showcase application scenarios such as a digital signage system, collaborative discussion, and more.



Mr. Ping Cheng, chief executive officer (left) and Ms. Shan Shan Guo, chief brand officer (right) led Delta's press conference for COMPUTEX 2019 to share the solutions and technologies applied in Delta's 8K Green Theater



Delta participates in the first International Green Building Symposium in Taiwan to share its green data center and the latest trend in smart buildings

Text by Brand Management Office



Shan-Shan Guo (second from right), Vice Chairman of the Delta Electronics Foundation, Jesse Chou (first from left), Spokesperson & Assistant Vice President of Corporate Communication and Sustainability, Andy To (first from right), Managing Director of the USGBC North Asia, and Wang Jing, Director of the USGBC North Asia shared practices and experiences in green buildings at Taiwan's first International Green Building Symposium

At the invitation of the U.S. Green Building Council (USGBC), Delta attended the first International Green Building Symposium (IGBS) in Taiwan on May 31, during which Delta shared its promotion of green energy data centers, smart buildings and low-carbon buildings. At the symposium, USGBC awarded the world's first LEED ID+C Platinum Certification to the IT Data Center of Delta's Head Office and LEED Gold Certification to Delta Chungli R&D Building, highlighting Delta's leading position in green data center and green building technology.

In April this year, the IT Data Center of Delta's Head Office passed LEEDv4 ID+C Platinum Certification, which received considerable attention at the Symposium. It not only achieved full scores in energy efficiency, the use of the precise air conditioning design can further reduce power consumption by 51.4% while the virtual server increases performance efficiency by 120%; other aspects include the use of efficient power system and advanced airflow management to bring the overall PUE down to less than 1.35. The smart building solutions of Delta have also drawn the attention of the market in promoting the design of smart green buildings around the world, including the modification of lamps, adding lighting control system them, to save up to 89% in overall energy; the newly completed Zhongda Low-carbon Residence, on the other hand, has adopted Delta's related active smart building equipment, which not only greatly improves indoor comfort level, but can also easily save up to 20% in entire household energy compared to other buildings in the same area.

From the perspective of a practitioner, Delta Foundation has shared its experience in the past decade to raise public environmental awareness in climate change both in terms of education and policy influence. For example, Delta has jointly established the workshop for training green collar architects with Taiwan Green Collar Association, and has so far, trained more than 200 green collar architects. Delta also cooperated with Low Carbon Building Alliance to develop the first set of building material carbon footprint database and assessment software in Taiwan, to promote the trend of carbon footprint calculation in construction-related industries. Till now, 24 buildings have passed the building carbon footprint certification, and the accumulative carbon reduction has reached 598,492 tons of CO₂e. In addition, Mr. Bruce Cheng, founder of Delta, had also delivered a public speech on the concept and concrete practices of Delta Foundation in green building education at a side event of the United Nations Climate Conference.

Delta Electronics Brand Chief and Vice Chairman of Delta Foundation Shan-Shan Guo; CIO Cally Ko; Senior Director of Building Automation Solutions Roland Chiang; Section Chief of Factory Affairs Department Yan-Qin Zhong; and CEO of Delta Foundation Wim Chang, attended the Symposium. Relevant participants also anticipate Taiwan's green buildings to become even more popular in the future and that more people will be able to experience the benefits of green buildings.



Delta Holds a Special Show of the 8K Environmental Documentary of “Water with Life in Taiwan” at the Japanese theatre

Text by DEJ

After the premiere of Delta’s 8K environmental documentary of “Water with Life in Taiwan” on NHK BS 8K satellite channel in Japan, and large screen public show at the National Museum of Natural Science (NMNS) in Taichung at the end of March, Delta held a special show of the documentary at Akihabara 8K Projection Experience Theatre in Japan in the evening of April 16. Various features of Taiwan’s waterscape were presented at great length on the 300-inch large screen with self-developed 8K UHD projection technology. Shan-Shan Guo, Vice Chairman of Delta Foundation, CEO Wim Chang, CH Ko, General Manager of DEJ and Kengo Ka, Senior Director of DSBU and Kazuhiro Sato, Chief Producer of the documentary of “Water with Life in Taiwan” attended the special show event. The event also attracted nearly 60 guests from media and all walks of life.

General Manager CH Ko said in his opening speech, it took nearly two years for DEJ, NHK Enterprise and Delta Foundation to complete the environmental documentary of “Water with Life in Taiwan”, which reflects Delta’s emphasis on corporate social responsibility and environmental sustainability with practical actions. Water is an extremely valuable resource for Taiwan. “Water with Life in Taiwan” not only presents natural beautiful sceneries of various parts of Taiwan with 8K ultrahigh resolution, but also faithfully records environmental issues related to water resources.

Vice Chairman Shan-Shan Guo expressed that Delta appreciates the shooting team of NHK Enterprises very much. To faithfully present various features of Taiwan’s waterscape, the four seasons were taken as observation points. Along the flow of the black tide, sceneries were surveyed from Kenting in the south to Hokkaido in the north, and finally, appropriate shooting points were selected. It took a year and nine months from scenery survey to completion of the shooting. More than 50 members of the team from both NHK Enterprises and Delta used equipment like 8K cameras, high-speed cameras, 8K air shooting drones and underwater cameras, etc. so that the public can watch environmental phenomena like the disappearing lichen and moss on Yilan County’s Cilanshan Mountain, the ecological restoration of the Formosan landlocked salmon’s habitat in the Cijiawan River in Taichung and the bleaching of corals of Kenting in Pingtung County, etc. 8K detailed images are used to convey the impacts of global warming and human activities on water and related environment.

Chief Producer Kazuhiro Sato said, as far as we know, this is the world’s first 8K, long-storytelling documentary. Different from other 8K materials, this documentary not only shows 8K visual effects, but also contains a lot of contents. It not only shows breathtaking colors as well as beautiful and bright scenes; the team focuses more on the real presentation. Delta’s decision to produce this 8K documentary is respectable and we are very proud to have participated in the production.

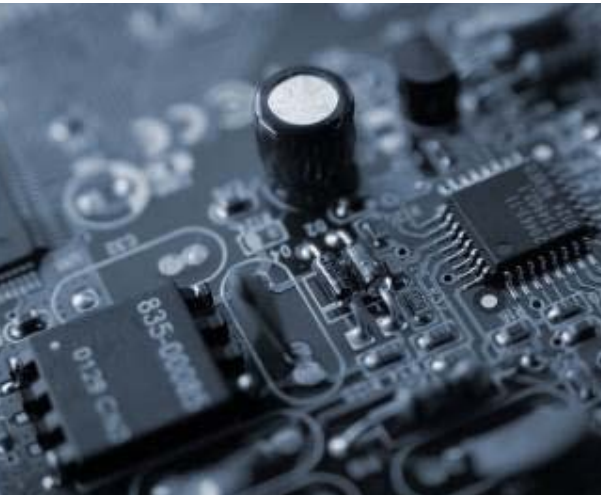


(From left to right) Kengo Ka, Senior Director of DSBU, Shan-Shan Guo, Vice Chairman of Delta Foundation, CH Ko, General Manager of DEJ, Kazuhiro Sato, Chief Producer of the documentary of “Water with Life in Taiwan” and Wim Chang, CEO of Delta Foundation attended the special show event of “Water with Life in Taiwan” in Japan



Delta provides real-time monitoring system solution for SMT industry

Text by IABG



Delta's Real Time Monitoring System monitors each individual PCB for easy and efficient reflow data collection and management

In today's electronics industry, surface mount technology (SMT) refers to the process of soldering electronic components to the surface of circuit boards. It is a commonly used and wide spread process. With the recent developments in smart manufacturing, detailed visualization of process information has become increasingly important. Therefore, to ensure the quality of each printed circuit board (PCB), manufacturers need to be able to monitor the temperature of every reflow oven through the Manufacturing Execution System (MES) during the production process.

For effective and easy monitoring Delta provides its DIAMES SMT reflow oven real-time monitoring system solution. The solution can be applied in the SMT industry for managing PCB barcode information, to monitor the real-time oven temperature profile and record anomalies during production.

Delta's SMT Reflow Oven Real-Time Monitoring System Solution provides customers with the necessary means to overcome the challenges of collecting and managing reflow data in smart manufacturing, for easy and efficient data exchange.

Delta's automation solutions assist in automatic loading and unloading of machine tools to improve efficiency

Text by DGC

In the traditional production, the injection molding machine and CNC lathe on the production line take and change materials usually in a manual way; machining residues are often left in the machining, which can make the gripping position of the machining machine deviate, and even the subsequent machining accuracy can be affected; the production speed can also change due to human conditions, resulting in poor overall quality. To improve the stability of loading and unloading, Delta introduces the automation solution into the loading and unloading equipment of the machine tool. The professional machine tool loading and unloading solution formed by making use of self-developed industrial robots matched with multiple automation products can accurately complete loading, unloading and residue cleaning to improve the automation level of production, operation flexibility and efficiency.

Delta's machine tool loading and unloading solution adopts DRV series of vertical multi-joint robot. It is installed on the linear slide rail, and through the gripping by the end of the robot, the servo motor case is gripped from the feeding mechanism and is fed into the CNC lathe. After the completion of the case machining, the CNC numerical control system sends signals to the industrial robot. The robot takes out the machined workpiece from the CNC machine tool, and places it in the corresponding position, so as to shorten the loading and unloading time of the machine tool.



Delta's automation solutions assist in automatic loading and unloading of machine tools to improve efficiency



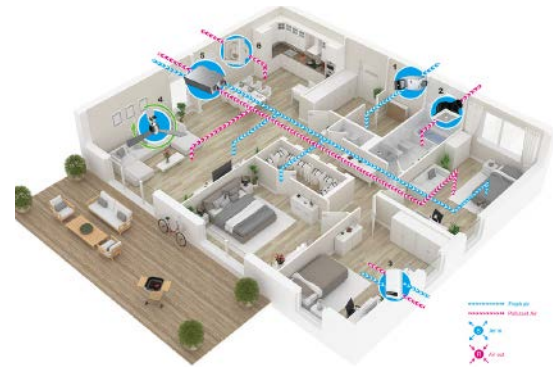
Delta tackles Thailand's pollution with innovative indoor air quality solution

Text by DET

This year's unprecedented deterioration of Bangkok air quality has alarmed Thai society and attracted international concern. In fact, every year toxic pollutants and PM2.5 cause serious health issues for countless smog-stricken Thais. Delta is tackling this clear-and-visible threat to public health head-on with its indoor air quality solution that offers immediate protection and relief from the deadly pollution blanketing the city.

As a leading DC brushless fan producer, Delta designs and produces an extensive portfolio of building ventilation fans with best-in-class power, efficiency, durability, noise reduction and advanced functions for optimal performance. Delta's indoor air quality solution features either Delta's energy-efficient ERV or its all-in-one design inline fan for air supply. Both product types have a PM2.5 filter to circulate purified fresh air from outside throughout the home interior. Diffusers then deliver the safe filtered air to each room while DC motor exhaust fans take out the impure air to release outside the house.

Besides guaranteeing a healthier and invigorating living environment, Delta's indoor air quality solution fans feature a silent operation design for peaceful relaxation. In addition, Delta's ERV and DC motor technology offers maximum energy savings, protecting the environment and reducing maintenance and running cost for users. Family members can enjoy a safe, green and comfortable daily home life with pure airflow quietly delivered and managed by Delta's solution.



Delta's indoor air quality solution features PM2.5 filter air supply with Inline Fan (1) or air exchange with Wallmount ERV (3) Ceiling ERV (5) DC motor exhaust fans (2,6) and Ceiling Fan (4) to deliver and circulate fresh clean air

Fuyang Normal University confident in Delta's micro-modular data center

Text by DGC

Delta recently announced its cooperation with Fuyang Normal University in building highly integrated and highly scalable infrastructure solutions for data center. Hot spot issues are resolved using simple architecture, ensuring the reliability of smart campus system, as well as enabling fast deployment and flexible expansion of the data center.

In recent years, Fuyang Normal University actively promotes digitized campus and smart campus construction. Pertaining to Fuyang Normal University's overall plan and building requirements, Delta offers MDC Micro series micro-modular data center, which helps industrial users in deploying small-scale data center quickly. For application environment of small-scale data center with less than 10 cabinets, and area below 50 sqm, the three core systems comprising power distribution and monitoring integrated system, cabinet system, and cooling system, are integrated, enabling flexible and easy setup, and smart and easy management. The data center solutions designed for these small-scale data center users are highly cost-effective and highly available.

Construction of data center for schools has to be as simple and fast as possible. For installation of Micro series, customers only need to prepare power cable and data cable, and the system can be quickly installed and go into operation. Pertaining to possible future expansion requirements for smart campus, Micro series also supports the possibilities of expansion on demand. Micro series micro-modular data center also comes with a smart management mobile APP, and personnel no longer need to be in the data center for school administrative management. Through the APP, maintenance personnel can easily obtain system operation information anytime and anywhere, ensuring the security of the system.



Delta Micro series micro-modular data center solutions



Nissan and Delta pioneer partnership to enable EV-home charging

Text by DET



Landmark partnership unites the world's best-selling Electric Vehicle, the Nissan LEAF, with global power supply provider to support Thailand's electrification roadmap

Nissan announces the official appointment of DET as the primary provider of electric vehicle charging systems.

The deal supports Thailand's electrification goal of 1.2 million units on the road by 2036 and will provide Nissan LEAF owners in Thailand international-standard charging facilities with Delta's quality standard of service, certified by Nissan.

"Nissan Motor Thailand is committed to helping drive an electric vehicle ecosystem in Thailand for the benefit of our customers, and Thai people, by supporting a greener future through electric mobility. To ensure this, we are honored to welcome Delta, one of the world's leading power supply producers and thermal management solutions providers, on board to join us and drive Thailand toward an all-electric vehicle future," said Ramesh Narasimhan, president of Nissan Motor Thailand.

In addition, the exclusive partnership comes as the Nissan LEAF, the best-selling EV globally with more than 400,000 vehicles sold worldwide, started shipping to Thai customers this month.

"We leverage our core competencies in power conversion and management to develop and install world-class charging solutions for the global EV community, and now in Thailand. Owners of the all-new Nissan LEAF in Thailand can now confidently take to the roads supported by our safe and efficient charging solutions and localized service," said Dick Hsieh, president of DET.

The all-new Nissan LEAF, which launched at the Thailand International Motor Expo 2018 for delivery in May 2019, is the best-selling electric vehicle in the world with 25% global market share and the icon of Nissan Intelligent Mobility, the company's vision to transform the way people drive and live. The new e-powertrain gives the new Nissan LEAF 110 kW of power output and 320 nm of torque, improving acceleration and driver enjoyment.



Delta at Techno-Frontier 2019

Text by Corporate Communications



Delta launched full-scale business of the DRV Series 6-axis articulated robot in the Japanese market in response to issues of labor shortage and production efficiency in the manufacturing industry

Delta exhibited at the TECHNO-FRONTIER 2019 from April 17 to 19, offering concrete solutions for smart manufacturing that has been deployed worldwide. In addition to the SCARA robots announced last year, Delta launched full-scale business of the DRV Series, a highly versatile 6-axis articulated robot, in the Japanese market. Delta also showcased automated solutions that support the creation of internationally competitive production lines by thoroughly pursuing not only multifunctional, high-performance, but also cost-effective technologies and experiences in order to solve the manufacturing industry's problems.

DEJ executive director Mr. C.H. Ko pointed out that there are an increasing number of companies considering introducing industrial robots to eliminate labor shortages and improve production efficiency, but there are cases that it is not possible to understand how well the industrial robots are suited to the company. As Japanese companies are considering introducing advanced articulated robots, Delta Electronics proposes a minimum solution that can solve problems for manufacturers based on a wealth of technologies and products related to FA, from PLCs, inverters, servo to articulated robots.

Delta's wide range of energy-efficient solutions at Middle East Electricity 2019

Text by EMEA

Delta showcased smart green products and solutions for the creation of energy-efficient cities at Middle East Electricity 2019 at the Dubai World Trade Centre. The state-of-the-art portfolio included the IoT-based Building Management Platform, which offers compatibility with all open protocols used in building control such as Modbus, BACnet, M-Bus, DALI, EnOcean, OPC, LON and KNX to implement energy-efficient control of a broad range of building functions including HVAC, lighting, surveillance cameras, renewable energysystems and EV chargers. Delta also launched its 125kW string PV inverter M125HV series, which features peak efficiency up to 99.0%.

Mr. Motaz Al Ma'ani, Delta's senior director & general manager for the, Middle East & Africa, said: "With an ever growing focus on how to build smart cities for the future, and the world increasingly invested in ways to save energy, manufacturers are responding to this demand. Today, Delta is very well placed to maximise businesses potential to change the way they are powered, thanks to its wide range of energy-saving solutions that will be shown at MEE 2019."

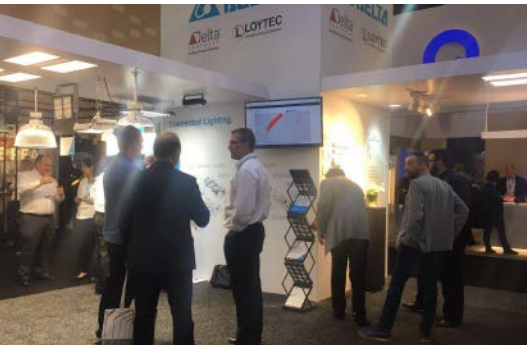


Delta's wide range of energy-efficient solutions for smart cities featured at Middle East Electricity 2019



Delta showcases Smart Lighting and Building Automation Solutions at LIGHTFAIR International 2019

Text by BABG



Delta showcases Smart Lighting and Building Automation Solutions at LIGHTFAIR International 2019

Delta showcases its IoT-based Smart Lighting and Building Automation Solutions at LIGHTFAIR International 2019. The display included a live demonstration of Delta's Bluetooth® Intelligent Control (BIC) luminaries, which boast built-in Bluetooth® SIG Mesh technology to enable many-to-many (M:M) device communications, comprehensive building data collection and smart energy management via advanced functions, such as, wireless lighting control, location-based tracking, auto-sensing and more. Building automation systems from Delta and its subsidiaries, Delta Controls and LOYTEC, can leverage the aforementioned Delta BIC technology to enhance occupant-driven smart applications in hospital, retail, office as well as industrial buildings.

By integrating with Delta's LED luminaire products, LOYTEC and Delta Controls facilitate smart light color temperature and brightness variations that enhance the health conditions and comfort of building occupants.

The Delta Controls O3 series product line includes the fully programmable native BACnet O3 Room Controller, O3 Sensor Hub and O3 App for on-the-go control. The O3 Sensor Hub can detect indoor motion, sound, temperature, humidity, heat sources and light level using a variety of sources to make proactive adjustments that create an economical and occupant-friendly living environment.

LOYTEC's IP-based building management platform enables integration directly to IP connected devices and is compatible with all open protocols commonly used in building control. LOYTEC lighting control solutions, including circadian rhythm lighting and daylight harvesting applications, reduce energy consumption and increase the well-being of occupants. The IoT-enabled L-ROC room automation solution can integrate air conditioning, lighting and sunblind controls at the room level, which significantly reduces overall system installation costs.

Delta attends China Refrigeration Expo 2019 to promote building intelligence in multiple dimensions

Text by DGC

Delta attended China Refrigeration Expo 2019 in Shanghai, and displayed Delta's all-round HVAC solutions in the fields of group control of water chillers, fan coil network control, indoor air quality and building energy-saving management with its subsidiary LOYTEC's full IP intelligent building solutions, which can be used in hospitals, retail stores, office buildings, public works and so on. Multi-task I/O controller LIOB-585 which combines IP architecture and building management was also displayed at the same time. It integrates multiple functions, and it can clearly state the technical level of customers' upgrading intelligent air conditioning control and reduce the cost. Recently it has won the Grand Prize of the United States Control Trends - Annual Building Automation Plant / Equipment Controller.

Delta also provided a variety of HVAC solutions at the exhibition. Taking Delta's water chiller group control solution as an example, it not only automatically adjusts the unit operation according to the actual air-conditioning cooling load demand, intelligently monitors system temperature, pressure and so on, sends out real-time abnormal alarm, but also automatically makes statistics of the accumulated running time of the equipment and realizes active intelligent management. The fan coil network control emphasizes the centralized control at the end of the air conditioner, effectively avoids energy consumption, and achieves flexible zone monitoring management according to the needs of different zones. The indoor air quality solution is to keep the air fresh by automatically detecting indoor air quality and adjusting the ventilation system.



Delta's Building Automation Solutions are presented at China Refrigeration Expo



Delta demonstrates Smart Manufacturing Solutions at SPS IPC Drives Italia 2019

Text by IABG



Delta demonstrates Smart Manufacturing Solutions at SPS IPC Drives Italia 2019

Delta, a global provider of smart and energy-efficient industrial automation solutions, demonstrated several smart manufacturing solutions at SPS IPC Drives Italia 2019 from May 28-30. The highlight of Delta's exhibition at the show included the new CODESYS-based Motion Control Solution, which integrates the control layers of programmable logic controllers (PLCs), human machine interfaces (HMIs), and motion controllers into one single platform to provide seamless control of a Delta SCARA robot on site. Also on display will be Delta's DIAEnergie solution, which offers factories and production lines the possibility to enhance their real-time energy consumption monitoring and management capability to the smart manufacturing standard.

Luca Cavagnari, head of sales at Delta's Industrial Automation Business Group in Italy, said, "Smart manufacturing is a key part of our long-term strategy at Delta. One of the things our customers value about our automation solutions is our ability to integrate hardware and software and enable energy-efficient manufacturing. With the new CODESYS solution, we've developed a comprehensive platform that is helping our customers take full advantage of smart manufacturing.

And of course, we use our smart manufacturing solutions at our own production facilities, too. Our PLC, motion controller platforms and robot will be equipped with CODESYS platform for system integration, ideal for saving engineering time on programming."

Delta attends CIMT with many professional programs

Text by DGC

The biennial grand event in the machine tool industry - China International Machine Tool Show 2019 (CIMT) was held in Beijing from April 15 to 20, 2019. To conform to the trend of development in precision machining, Delta attended CIMT by taking intelligent manufacturing as the principal axis and taking along a variety of professional machine tool industry solutions and motion control products to assist in the intelligent upgrading of the machine tool industry.

At CIMT, Delta's various professional machine tool industry solutions were presented one by one, including: vertical machining center solution adopting Delta's NC311 series of CNC system and feed motor with high-response and high-resolution. Its simple wiring significantly shortens the power distribution time at the factory. Machining can start immediately under the condition of not returning to zero, the machining efficiency and precision can be guaranteed, and high-speed rigid tapping of 4000 rpm can be realized. The integrated solution of servo hydraulic press adopts VFD-VJ series of oil-electric servo driver, which can meet multiplexing I/O and multiple bus compatibility with a wide range of requirements of hydraulic press. Double closed loop control can assist customers in extending management to the workshop. The integrated solution of variable frequency punching machine can realize the control of the punching machine, efficient control of the form of slider movement and adjustment of the mold, etc. The punching action is refined; energy rebound and high overload can also be suppressed.

At CIMT, Delta displayed the intelligent manufacturing equipment interconnection monitoring platform in the form of TV wall, which can display the operation information of remote production equipment in real time, meet the needs of production line personnel for the evaluation and understanding of the production site information, and improve the production efficiency.



Delta attends CIMT with many professional programs



Delta industrial automation service training in Thailand

Text by IABG

The 16th Delta Industrial Automation Global Service Training took place in Thailand from May 28th to 30th. Focusing on service efficiency and product knowledge, the Global Service team from Delta Industrial Automation (IA) headquarters gathered with Delta staff from Southeast Asian and Indian branch offices and distribution partners to discuss topics such as cross-country service processes, customer service platforms, and motion control, motor drive, machine vision and sensor products. Delta Industrial Automation is seeking to strengthen its overseas service network through the 3-day training program.

Delta IA products are currently offered through 102 global branch offices and more than 800 distributors. Among these, 133 locations in 66 countries provide after service. Delta IA is dedicating to fulfilling customer needs and to achieving "One-stop shopping with worldwide service". The Delta IA customer service platform is the key to connecting its worldwide service network. In addition to parts ordering, warranty search, and service consulting, the platform also offers complete after service, including original manufacturer repair, Authorized Server Partner (ASP) 2nd level repair, onsite service and overseas service. It clearly records requirement details, service content and results.

Through its complete and versatile service processes, Delta's Industrial Automation Global Service team is able to respond to customers, and provide comprehensive after service for customer requirements in a short time. Depending on where the products were purchased and where a malfunction occurs, Delta IA offers the following solutions:

1.If the product issue has taken place in the country of purchased, the user can contact the Delta office or Delta's ASPs for original manufacturer repair, 2nd level repair or onsite service.

2.If the product was shipped overseas and is out of order in the other country, the user can contact Delta's Industrial Automation Global Service team to request an overseas service case. The Global Service team will assign a nearby ASP from among 133 worldwide locations to assist and solve the issue.

Based on product sales quantities and estimates, Delta IA also prepares "service product" backups in worldwide locations for urgent customer needs, shortening production downtime. An internationally renowned Taiwanese injection machine and CNC machine tool provider benefitted from Delta's backup system to assist its overseas end user quickly solve an equipment malfunction, and greatly reduced the losses from machine downtime. Both the end user and the machine tool provider gave Delta IA's global service network high praise.



On May 28th to 30th, Delta IA held its global after service training for Southeastern Asian & Indian ASPs in Thailand



International forum on renewable energy and green low-energy buildings 2019 holds successfully

Text by DGC

"International forum on renewable energy and green low-energy buildings 2019" was successfully held in Tongli, Suzhou. More than 300 people from home and abroad, including representatives of construction and energy administrative authorities, industry experts, architecture teachers and students, representatives of green construction parts enterprises and energy enterprises, gathered together to discuss topics related to renewable energy and green low-energy buildings. The Forum invited internationally renowned green architecture masters, such as Ken Yeang, founder of T. R. Hamzah & Yeang Sdn. Bhd. of Malaysia, to share new ideas and practical experiences on international green architecture. Domestic experts were also invited to give on-site explanation on the integrated application of renewable energy and green low-energy buildings.



Domestic and foreign experts participating in the forum and executives of Delta unveiled "Zhongda Low-carbon Residence"



Zhong Jishou, Director of Solar Energy Architecture Committee of Chinese Renewable Energy Society, and Secretary-General of Architectural Society of China, commented on the entries

Bruce Cheng, founder and Honorary Chairman of Delta, shared Delta's stories in green buildings over the past decade. He said, Delta is committed to the promotion of green buildings. Since 2006, self-built factory buildings and buildings donated have all been designed as green buildings and built according to green building standards. The data center of Delta Wujiang R&D and Manufacturing Base has adopted Delta products and energy-saving design programs. Its annual average PUE (Power Usage Effectiveness) value reached 1.29 within three years from its commissioning in 2015 to 2018. Last year, the center passed LEED v4 ID+C (Interior Design and Construction) Gold Certification; thus it became the world's first green data center to receive this great honor.

The Forum invited internationally renowned green architecture masters, such as Ken Yeang, founder of T. R. Hamzah & Yeang Sdn. Bhd. of Malaysia and winner of 2016 Liang Sicheng Architecture Award, to share new ideas and practical experiences on international green architecture. Mr. Ken Yeang made a speech with the theme of "Ecological Design and Overall Planning" through the cases of National Library of Singapore and Editt Tower of Singapore.

In addition, 2019 Delta Cup International Solar Energy Architecture Design Competition with the theme of "Sunshine & Cultural Tour", after more than a year's careful organization, also came to a successful conclusion in Tongli, Suzhou. Through many rounds of fierce competition, the jury composed of top academic experts from home and abroad finally selected 2 first prizes, 4 second prizes, 6 third prizes and many excellence awards from 200 entries. Among them, the works of "Wind Sings • Flower Dance" submitted by Chongqing University won the first prize of Zhejiang Fengxi Rose Education Research Base Project, and the works of "Reaching for Stars" submitted by Nanjing Tech University won the first prize of Xinglong Night Park Starry Sky Station, Hebei Province.



Delta Controls wins the most influential brand award in China's Intelligent Construction Industry in 2019

Text by DGC



The award of "Most Influential Brand in China's Intelligent Construction Industry in 2019" has been presented. Delta Controls, a brand owned by Delta, has been again awarded the "Most Influential Brand in China's Intelligent Construction Industry in 2019".

Since joining Delta, Delta Controls has continuously optimized its product integration with its parent company, and incorporated frequency converter, electric vehicle charging equipment and uninterruptible power supply of Delta into the scope of enteliWEB management. Recently, Delta Controls has also launched the O3 Area Control System, among which O3-DIN-CPU Controller combined with O3-DIN series of various modules can make centralized control of multiple systems, such as HVAC, access control, lighting, curtains and projection equipment, and can also integrate protocols like Modbus, DALI, BACnet and NFC. Besides being able to sense the light, heat, humidity, carbon dioxide and sound in the environment, the multifunctional sensor in the O3 series also has the ability to calculate and produce sound, coupled with a flashing light ring that changes with the situation. It can interact with users in space at any time. In addition, it can accurately judge the user's behavior, and automatically adjust the equipment in space. The building control system integration work will be simpler, more systems can be integrated onto one platform for management, and the operational burden of users will also be reduced.

So far, Delta Controls has successfully implemented more than 2,000 building automation control projects in China, including hospitals, hotels, transportation and super high-rise buildings.

Delta Controls wins the most influential brand award in China's Intelligent Construction Industry in 2019

Delta's C2000-HS series wins the award of "Innovative Product in the Electrical Industry"

Text by DGC

The 19th "Top 100 Electrical Enterprises in China" was announced in Beijing on April 25. Delta's C2000-HS Series of High-Speed Frequency Converter was listed in the announced list of "Innovative Product in the Electrical Industry".

Delta's C2000-HS Series of High-Speed Frequency Converter is a frequency converter product completely developed by Delta in connection with high-speed motor driving. Its rated output frequency reaches 1500 Hz, the output current of the frequency converter is efficiently enhanced, and the size of the frequency converter is reduced by 60%, so that the need of high-speed motor is met. C2000-HS Series adopts the new generation of IGBT with Delta's integration technology. Its switch loss is less and its switching frequency is higher; meanwhile Delta's latest vector control algorithm is adopted. The software control is more accurate, and the output frequency is higher. It can drive the motor to run at a high speed from 16,500 to 55,000 revolutions, so that the equipment efficiency in the fluid industry can be greatly improved. The maintenance system of the speed-increasing gearbox and oil circuit can be saved, which is suitable for high speed fluid machinery, such as high-speed blower, high-speed centrifugal air compressor, maglev water chilling unit, etc. It is a supporting drive product in the upgrading of the electrical control system in the fluid industry.

In addition, Delta-Zhongda Electronic Parts & Components (Wujiang) Co., Ltd. is also listed in the list of the 19th "Top 100 Electrical Enterprises in China" for its excellent performance in the past year.



Delta's C2000-HS series of high-speed frequency converter



Delta wins employer brand double awards

Text by Human Resources Department

In recent years, Human Resources Department has continued to participate in various employer brand promotion activities, and the effectiveness has been gradually rising. This year Delta has made the achievement of winning Top 13 (Top 3 in the technology manufacturing industry) in Cheers "2019 Most Favorite Enterprises in the New Epoch", which is the best result over the years, compared with Top 56 in 2017 and Top 27 in 2018. Delta is selected as Top 20 Happiness Enterprise in Electronic Parts & Components in 1111 Job Bank's First "2019 Science and Technology Industry Happiness Enterprise Reward" from more than 600 companies.

Significant rise in the ranking for two consecutive years has also attracted the attention of Cheers Magazine; the input of Delta in campus activities and its efforts to move towards community management have been reported. However, what impresses the editorial team most is the innovation in the way of communication. Through a series of "Delta Talk" activity arrangements, senior executives are invited to share their careers or decision-making processes through storytelling, which are recorded and made into films. The way of matching the usual practice to receive information in the new epoch and the significance of work communication become one of the main reasons why Delta is favored by editors. The affirmation of Science and Technology Industry Happiness Enterprise Reward comes from the company's commitment to the improvement of employee welfare. Whether the admirable golden week plan or the program of "Health Action" which has just won the sports company certification badge, shows our efforts to create a work-life balance and ideal workplace.

Cheers 雜誌
2019年新世代最嚮往企業TOP 100
新世代最嚮往企業

2019 排名	2018 排名	企業名稱	加權積分	營收 (億元)	營收成長 率(%)	獲利率 (%)	產業別
13	27	台達電子	1,018	2,235.8	4.3	8.2	製造業

In the selection of "2019 Most Favorite Enterprises in the New Epoch", Delta has won Top 13 and Top 3 in the technology manufacturing industry! Best results over the years



Delta Electronics (Shanghai) Co., Ltd

PEOPLE

The joy of work and the realization of goals Delta Electronics (Shanghai) Co., Ltd

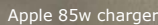
Text by Delta Electronics (Shanghai) Co., Ltd



Wu Tao / Electronics Engineering, Shanghai R&D Center

My name is Wu Tao. I am an Electronics Engineer in the ADP Department at the Shanghai R&D Center, in charge of the team that designs power products for Apple. My suppliers have called me Engineer Wu, Engineer Wu several times... It seems a bit odd to me, but seeing their sincere faces, I sort of accepted this title.

As a Delta employee of 16 years, my CV can be written in two or three sentences: as an engineer, I did not devise industry-leading products for the Company; as a middle-age man over 40, I have never spent long night in tears and am less qualified to speak about life.



In 2005, my third year in Delta, I completed my first ever Apple 85w charger. Since then I have never gotten rid of Apple in my life. In the following decade or more, I have led a team with many outstanding coworkers to develop various power products for our clients. Our efforts have been applied to every generation of Apple Computer product.

factory with certain engineers, because they are only willing to go back to the dormitory after the night shift of the production line finishes the last product. Some engineers insist on working overtime in the factory even with tenosynovitis. The hard work and modesty of these young folks seem out of place in this fickle and materialistic society, but there are genuinely planting seeds of hope with their own sweat. It was precisely this group of coworkers that brought Engineer Wu back from the edge of cynicism, that allowed him to preserve a bit of motivation after sixteen years of service. Encouraged by such acts, Engineer Wu convinced the boss to use the department's budget to design a ring for five years of employment. The front of the ring has an image designed by Engineer Wu, and the back is engraved with their first day on the job, their employee number, and then the phrase "Thanks for being with us for 5 years." I pondered for a long while on the phrasing and opted out of the customary "Thank you for outstanding contributions to the company." Engineer Wu thinks that many engineers have started working here right after university graduation. They have dedicated the best five years of their lives with us and the company. Shouldn't we be thankful?





PEOPLE & PRODUCT



Huang Lei / Head of Cafeteria General Affairs Section, Delta Corporate Management Shanghai

I joined the Delta Family on March 5, 2017, and manage the Delta employee cafeteria. These two years at Delta made me realize the Company's love and care in every way towards employees.

My department mainly offers breakfast, lunch, and dinner to company employees. Sometimes, we also host teatime and offer round-table service. It's difficult to please everyone's palate because company employees come from all over the country. Therefore, with the company executive's support, the cafeteria staff took several preliminary qualification certificate training courses for chef and pastry chef and obtained the certificates to learn more. The staff honed their personal skills and often put out new dishes and desserts. There is also a food theme every season, such as the summer salad bar, winter mixed grains, and spring sushi and noodles to satisfy the needs of a massive number of employees. The cafeteria staff also receives help from various company departments. We have formed a cafeteria committee to welcome all communication. It offered many helpful feedbacks to the cafeteria, while the supporting company departments often aid and support the cafeteria staff as well. This created a friendly company environment. The cafeteria staff work together to provide quality meals and services to the employees, and have received the name "2017-2018 Pudong New District March 8 Red-flag Bearer Group". Our total devotion towards the goal is all thanks to the support and love from Delta.



Photo from the company trip to Ningpo Wulongtan, Huang Lei is on the left



Group photo of the company staff ready to embark on the company trip



Delta Newest ADT series

PRODUCT

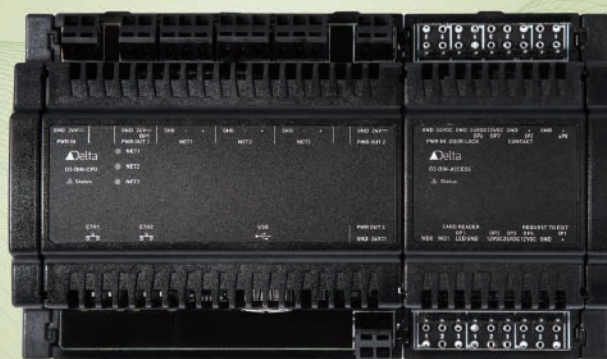
Delta newest ADT series 60W AC/DC IT adapter

Text by DET

ADT series from Delta Electronics is the newest range of 60W of AC/DC Desktop Adapters. This series offer single output voltages of 12Vdc, 15Vdc, 19Vdc and 24Vdc with 60W output power (ADT-060A). The products accept universal input voltage from 85-264Vac and has a wide operating temperature range from -10 °C to +60°C with full power up to +40°C. The extremely low no-load power consumption below 0.15W is much lower than the ErP Lot 7 requirement of 0.5W in the European Union (EU). The ADT-060A comes certified with IEC/EN/UL 62368-1 approval that will replace IEC 60950-1 for ITE due to expire in December 20, 2020. In addition, they also meet the EMI approvals to EN 55032 class B.

Highlights & Features:

- ▶ Up to 89% efficiency
- ▶ Meet ErP Lot 7 & DOE VI
- ▶ No load power consumption < 0.15W
- ▶ Over-Voltage/Load/Temperature & Short Circuit protections



The O3 Access Control can integrate with VIVOTEK Intelligent IP Surveillance systems

PRODUCT

O3 Access System offers harmonized, user-friendly living

Text by DET

Delta Controls launched a new generation of O3 Access Control. This access control system will extend the scope of Delta Controls' building control services. With the integration of Delta Electronics' subsidiary VIVOTEK Intelligent IP Surveillance systems, O3 Access Control becomes one of the most competitive room control systems.

The O3 Access system is deceptively simple. The door control hardware has a module that can be added onto our proven O3 platform. The user interface is integrated into our enteliWEB software, providing intuitive dashboards for commissioning our access systems and working with them once products are installed. End users can authorize card users, create and view detailed usage reports, and define types of users and their access rights within their buildings. It's an intuitive and easy-to-use access system, but the real excitement comes from looking at its advantages within the greater Delta Controls offering of solutions.

We are living in a data-driven, connected world. It's increasingly important to improve your building occupant experiences. HVAC, lighting, and access all work together to give you a complete view of your system and your customer's experience. What happens when a building occupant swipes their card to access a room? Did the lights turn on? Is the HVAC system ventilating the space? Are the lighting levels correct for your activity in the room? In a Delta Building, the answer is yes to all of these questions.

It all points to integration. The access system is built on the platform of our O3 system, which integrates lighting, blind control and CCTV while using the same software, offering custom dashboards. One person can control everything or each person can be given a view tailored to their duties.

Though we've designed O3 Access with integration in mind, we've developed it with the features and robustness to stand alone as an access system. It's fully featured, allowing for all the reporting, user definition, and functionality of other competing access systems.



The Catholic Franciscan Spirituality Centre, located in Daxi, Taoyuan, has a history of over 60 years

Love for natural harmony: A green church building in Taoyuan Daxi

Text by Yvonne Chan / Senior Program Coordinator of DEF

One day in the end of April, I drove under the 32 Celsius heat towards the Catholic Franciscan Spirituality Centre in Daxi, Taoyuan. This is a Catholic church with over 60 years of history. It was rebuilt in 2009 without any air conditioning but is still able to maintain a comfortable humidity and temperature even with a gathering of 300 hundred people in this scorching hot summer!

What kind of design allow for this simplistic and neat little center to overcome the summer heat? In order to answer this question, we must first learn about the "Franciscan Spirit".



Franciscan Spirit: Zero-Waste Frugality

In the Catholic faith, Francisco is a peace and nature-loving saint. He is for the “integration” of human beings and the world. He practices frugal living, no waste, and use only what he needs. This is exactly the spirit that has made an influence on the architectural design of the center.

When you first enter the center, you will find a large ecological green land. To be precise, the building area occupies less than a third of the total area of the base. The architect responds to this by saying: We only take the space we need. Why not leave everything else back to nature?

Then, slowly walk into the classroom, and waves of wooden scents will greet your arrival. This used to be the main pillar inside the old church. The architect had decided to preserve and reuse it for the front door of the new holy hall as it is still in wonderful condition, and to conserve the aroma of history. Furthermore, all the chairs and tables you see in the church, the cafeteria, and the spiritual center are made of old bowling alley wood. These materials that were declared scraps were given a new life in the Franciscan spirit.

What is also remarkable is the mud wall inside the cafeteria - The Last Supper. The mud came from the excavation of the foundation for the new church. The high porosity and permeability loess mud of the painting will automatically absorb humidity when it has risen too high. The colors will automatically adjust itself and it prevents counter tide in the building. It has a dual effect of “natural dehumidification” and “artistic integration”!



The center is covered in green. The scenery, the sounds and the aroma are all satisfying for the visitors



Some tricks to naturally cool down the church

Now let's take a look at the power efficiency tricks used by the buildings in the center. The first secret is to avoid erecting too many pillars. The often "high heat seal" property of the bricks and reinforced concrete structure often makes the inside of the buildings hard to cool down. Therefore, the architect filled the extra wall space with two rows of windows to constantly bring in a breeze and outside air.

The second trick is to build an external sunshield. The red grill fence surrounding the church allows wind to pass through and avoids direct sunlight. When the wind blows across the pond in front of the church, water vapors also enter inside and become natural temperature controlling agent. The west-facing church is protected by sufficient shading from the winding corridor, so that the interior temperature is complete unaffected by the afternoon sunlight. This design also allows sunlight to decorate with a beautiful light and shades through the grill fence and glass.



The holy cross window on top of the roof fills the church interior with variable light and shadows

The exterior color of the building also has a certain impact. The light gray paint can significantly reduce the heat absorption on the surface of the building and reduce the indoor heat worries. The holy cross window on the church roof was designed for fire safety regulations, but it coincidentally matched the criteria for "wind-driven ventilation" and attracts warm air to flow upwards, so that the air in the building's top and bottom temperature layers are vertically exchanging, cooling down the building at the same time. When the weather is nice, the light projects the cross in the church and even moves with the sun! The circular sky window resembling the Pantheon in Rome, and surprisingly doubles as a sundial.

A Green Building is one that knows how to use nature's blessings

There are four main blessings of nature that one can find in the overall Franciscan Centre": wind, light, water, earth. They are all fully utilized in the architectural design to bring excellent natural cooling, lighting, dehumidifying, and other effects. Living alongside nature so, is exactly what the Franciscan philosophy continues to point out.

Now, the term "Green Buildings" has been in fashion for many years. It is worth some pondering to figure out what is a "Real Green Building". The Daxi Franciscan Spirituality Centre has no plans to apply for any green building label, but it uses the concepts of green buildings throughout its design process. The final cost is 30% less than similar building, and the annual electricity consumption per square meter is less than 12 kWh. These are all reminders that: The essence of a green building is merely follow the rhythm of nature, to create a power and material-efficient building.



Working together in a campaign to reduce carbon emission

Text by Glen Liao / Senior Specialist of Brand Management Office

In view of the growing problem of global warming and climate change, many countries are proactively reducing greenhouse gas emissions, and cities are planning and promoting carbon reduction. With the name of Formosa, Taiwan is certainly not missing its spot in a joint effort for energy efficiency. As all counties and cities have plans and promotions to lower carbon emissions, the government's efforts to reduce plastic materials also calls for cooperation of individuals and private sectors, in order to achieve twice the result with half the effort.



Start from our daily life in reducing carbon emission together

Every time I fly abroad, during take-off and landing, seeing the small houses and roads on the ground, it often makes me feel that the environment is very small. However, as the saying goes that "everything is possible with a collective will", don't neglect your own strength. If everyone thinks like that, it will bring positive energy to the society.

In fact, as long as we are willing to put efforts into our daily lives such as food, clothing, housing, transportation, education, and entertainment, we can do our part in slowing down the global warming.

- Food: Vegetarian food can effectively reduce carbon dioxide emissions. Taking cattle raising as an example, hydrogen oxides and other greenhouse gases are emitted every day. Because of busy work schedule, commuting workers often suffer from non-normal dieting. Picking a day to have a light diet not only helps with inner body cleansing, but also helps to reduce the creation of greenhouse gases. In addition, it is also very helpful for the environment to choose more local food that reduce the energy consumed from transportation. Out-eaters can also bring their own eco-friendly tableware to reduce wasting of disposable utensils.
- Clothing: Some clothes are made from petroleum products, which also represent the consumption of energy and resources. We often see recycling bins on the road for old clothes. In addition to letting everyone do their best, they can also indirectly reduce the production of new clothes that often results in carbon emissions.
- Housing: For home appliances, we can choose those products with energy label or green mark on them. Turn off the water and the lights, and use natural ventilation and lighting to effectively improve individual carbon emissions.
- Transportation: Use public transport. For me personally, since the advent of Ubike, I mainly rely on bicycles for shorter trips (4~5 MRT stations).
- Education: This part involves many aspects, and it requires all of the efforts from executive authorities, educational sector, and civil society. Taking educational institutions as an example, schools at all levels often have awareness events for energy-saving and low-carbon habits. In the middle and late April of this year, Tainan City and New Taipei City also held "low-carbon campus" award ceremony and granting of stamped certificates for campuses including those in Tainan, where the Green Magic School of Green Technologies at National Cheng Kung University (NCKU) was chosen as the site for those events, which also echoes to the long-term efforts of the Delta Electronics Foundation on energy conservation and carbon reduction.



Ubike can be considered for short-distance round trips, saving energy and reducing carbon and offering convenience



- Entertainment: For domestic tourism, it is recommended that we choose public transport. For the popular attractions in Taiwan, such as Sun Moon Lake and Xitou, THSR collaborated with bus carriers or other public transport to provide discount packages. For overseas travel, it is also recommended that we choose direct flights to reduce emissions of carbon dioxide.

Multi-party efforts to implement eco-friendly reduction of plastics with practical actions

The low-carbon environmental protection mentioned above, in addition to personal efforts, also requires the concerted efforts of private sectors and various units. Taking the recent reduction of plastics in daily life proposed by the government as an example, public sectors, schools, department stores, shopping centers, and fast food chains will join this effort starting July. They can no longer provide "one-time plastic straws" for dine-in users. Although it may be difficult for consumers to adapt, they will gradually get used to, just as the government promoted the replacement of Styrofoam with paper for lunch boxes in the past. Despite the painful period, we still made it through .

For supermarkets and supermarket chains, PX Mart has not only reduced plastics on packaging, but has also encouraged the public to respond to the call together. Since 2018, both Taipei and New Taipei have promoted dual-use shopping bags, which contributed to a total of 4.5 million plastic shopping bags reduced compared with 2017. In addition, the total number of use of PLA decomposable materials in place of PET by PX Mart in 2018 has exceeded 63 million, showing an increase of more than 15 million from 2017.



According to the statistics of PX Mart, the number of fruits, vegetables and cakes sold without packaging in 2018 has exceeded 50 million items, which is 1.4 times higher than that in 2017 (Source: PX Mart)



Wellcome has also been using eco-friendly dual-use bags in Taipei and New Taipei since the New Year's Day in 2018, and encourages consumers to bring their own or buy Wellcome's eco shopping bags and shopping carts to reduce the amount of plastics used. For the plastic bags provided for the fresh products sold without packaging, Wellcome said that in order to avoid cross-contamination of food affecting the health of consumers, they provide plastic bags only for fruit, vegetables, meat and seafood sold without packaging, and they're planning to gradually reduce the amount of plastics used in the future.



Wellcome encourages consumers to bring their own or buy eco bags and carts to reduce the amount of plastic used

Regardless of whether you are working hard in the office, leisurely shopping, or enjoying the beauty of nature at this time, we must be grateful for the land we stand on, as well as the air we breathe. As long as we start bit by bit from now on, the change accumulated in long term will amount to a great support to the earth.

