吉大工程
GTec Construction Co., Ltd.

www.gtecsi.com.tw

CORPORATE PROFILE

與城市一同成長
打造更好的生活軌跡

GROWING WITH CITIES・ENGINEERING FOR LIFE

台中捷運綠線水安宮站採用高架輕量化鋼骨結構，其獨特的波浪型屋頂桁架與軌道墩柱緊密銜接，展現現代都市交通建築的流線美學。

Shui-an Temple Station on the Taichung MRT Green Line utilizes a lightweight elevated steel frame. Its distinctive wave-shaped roof trusses and viaduct piers merge to showcase the streamlined design of contemporary urban transportation.

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吉大工程股份有限公司成立於 1990 年，總部設於新北市汐止區。作為台灣營造產業的重要參與者，公司具備綜合營造業甲級登記，並同時擁有甲級電氣承裝商與甲等自來水管承裝商之國家級認證，奠定機電與土建整合領域之專業基礎。

三十餘年來，吉大工程深耕軌道交通機電系統與營建基建機電整合兩大核心領域，並逐步拓展至綠色能源基礎設施等多元產業場域。公司不僅承擔施工任務，更以跨系統整合與複雜介面協調能力著稱，有效串聯各子系統，確保工程品質與整體效能。

從台北、桃園、台中至高雄，吉大工程技術團隊長期參與台灣多項重大民生公共建設。憑藉扎實的工程實績與穩健的專案管理能力，持續為台灣現代化基礎建設創造長遠價值。

Founded in 1990 and headquartered in Xizhi District, New Taipei City, GTec Construction is an important contributor to Taiwan's construction industry. The Company holds a Class A General Construction License, along with Class A certifications in electrical and water piping contracting, forming a solid foundation in integrated electrical, mechanical, and civil engineering services.

For over three decades, GTec has specialized in rail transit electromechanical systems and integrated construction and infrastructure MEP services, while progressively expanding into green energy infrastructure and diversified industry sectors. Beyond conventional contracting, the Company is distinguished by its expertise in cross-system integration and complex interface coordination, effectively connecting multidisciplinary systems to ensure overall project quality and performance.

With projects spanning Taipei, Taoyuan, Taichung, and Kaohsiung, GTec's engineering teams have been deeply involved in numerous major public infrastructure developments across Taiwan. Leveraging proven project experience and disciplined management capabilities, the Company continues to create long-term value in Taiwan's modern infrastructure development.

公司概況
Corporate Overview

成立日期 DATE OF ESTABLISHMENT
July 24, 1990

代表人 REPRESENTATIVE
陳竟曜 董事長
Jonny Chen, Chairman

資本額 CAPITAL
新台幣1億6,800萬元
NT$ 168 Million

統一編號 UNIFORM BUSINESS NUMBER
23813681

專業證照 LICENSE
綜合營造業登記證（甲等）
Class A General Construction License

甲級電氣承裝商登記證
Class A Electrical Contracting License

甲等自來水管承裝商登記證
Class A Water Piping Contracting License

貫穿區域網絡，打造城市交通動脈。
Spanning regional networks, forming a vital artery of urban mobility.

02
CORE VALUES & GUIDING PRINCIPLES
核心價值與經營準則

01

務實耕耘
Pragmatic Dedication

以紮實之工程底蘊，穩步推進每一項專案，打造經得起時間考驗之基礎設施。

Advancing every project with a solid engineering foundation to create resilient infrastructure that stands the test of time.

02

誠信經營
Integrity & Trust

堅守承諾、透明公開，對業主、合作夥伴及社會大眾抱持最高之道德標準，以信譽為企業永續發展之根基。

Upholding the highest ethical standards with transparency and commitment, ensuring that our reputation remains the cornerstone of our sustainable growth.

03

品質卓越
Excellence in Execution

從設計協調、施工管理至系統測試，以超越規範之自我要求，將品質意識內化於每個工程環節，追求工程之極致表現。

Internalizing a culture of quality across every phase—from design coordination to system testing—we exceed regulatory standards to achieve engineering excellence.

04

安全至上
Uncompromising Safety

秉持「零災害」之堅定信念，將安全管控落實於每一個作業環節，視每一位同仁之生命安全與健康為不可妥協之核心價值。

Driven by a "Zero Accident Commitment" conviction, we integrate rigorous safety protocols into every operation, prioritizing the health and well-being of our people as our most vital value.

我們的核心價值以誠信為本，品質與安全是我們的承諾。
Our core values are rooted in integrity, with quality and safety as our commitment.

03
CORPORATE PHILOSOPHY & STRATEGIC DIRECTION
企業理念與發展方向

專業技術與工法實踐
Technical Expertise & Methodological Excellence

專注核心技術研發與創新工法應用，於複雜都市環境中，以嚴謹工程邏輯確保機電與環控系統配置之精確性與可靠度。

By prioritizing R&D and innovative construction methodologies, we apply rigorous engineering logic to ensure the precision and reliability of E&M and Environmental Control Systems (ECS) configurations within complex urban environments.

落實零災害安全文化
Zero Accident Safety Culture

依循職業安全衛生規範，透過制度化教育訓練與現場巡查，將安全意識轉化為具體行動，建構兼顧工程品質與人員福祉之作業環境。

Adhering to strict Occupational Health and Safety (OHS) standards, we translate safety awareness into concrete action through systematic training and on-site inspections, fostering a workplace that balances engineering quality with employee well-being.

推動數位管理轉型
Driving Digital Transformation & Management

整合 BIM 技術與數位化作業流程，串接設計至施工階段之資料鏈，以資訊自動化提升管理效能，實現精準工程品質管控。

Integrating BIM technology with digitized workflows, our organization establishes a seamless Digital Thread from design to construction. This automation enhances management efficiency and enables precise control over engineering quality.

環境永續與企業責任
Environmental Sustainability & CSR

投入綠能基礎設施建設，推行低碳營建工法，朝向淨零排放目標邁進，以具體行動履行環境保護之企業社會責任。

Actively investing in green energy infrastructure and low-carbon construction methods, our firm is committed to the goal of Net-Zero emissions, fulfilling our Corporate Social Responsibility (CSR) through tangible environmental protection initiatives.

具備多項國家級工程專業資格。
Holding multiple national-level engineering contractor qualifications.

04 COMPETITIVE ADVANTAGES 競爭優勢

跨領域系統整合
Cross-Disciplinary System Integration

整合土木、機電、號誌、給排水及消防系統之完整工程能力，專精於高複雜度專案之介面梳理與衝突排除，確保各子系統間技術協調與無縫介接，實現機電系統整體效能最佳化。

We take pride in our comprehensive engineering capabilities across civil, E&M, signaling, plumbing, and fire protection systems. Our teams specialize in untangling complex interfaces and resolving conflicts to ensure seamless technical coordination and optimized overall system performance.

軌道工程經驗與實績
Proven Track Record in Rail Engineering

承攬全台多條捷運與輕軌系統之水電環控工程，累積完整軌道建設實務經驗，具備大規模機電系統統包與安裝之深厚實力，足以因應各類軌道專案之嚴峻挑戰。

With extensive experience in MEP and ECS works for numerous MRT and light rail systems across Taiwan, our organization possesses the robust turnkey capabilities required to handle large-scale installations and navigate the rigorous demands of complex rail projects.

BIM 應用與數位化管理
BIM Application & Digital Management

導入BIM技術進行全維度施工模擬與衝突分析，優化管線配置路徑，從源頭根除施工介面問題，顯著提升現場施工精度並有效縮短整體工期。

By leveraging BIM for full-dimensional simulation and clash detection, we optimize pipe and cable routing at the source. This significantly enhances on-site precision while effectively reducing the overall construction timeline.

標準化品質與安衛管控
Standardized Quality & HSE Excellence

依循ISO國際認證標準，落實嚴謹之標準作業程序與現場監控機制，並結合雲端管理系統即時追蹤工程進度與職安衛執行狀況，確保專案如期如質、安全交付。

Guided by ISO standards, we implement rigorous SOPs and real-time monitoring via cloud platforms. This ensures that every project is delivered on schedule, with superior quality, and under the highest Health, Safety, and Environmental (HSE) standards.

05
SERVICE SCOPE & ENGINEERING CAPABILITIES
服務範疇與工程能力

01 軌道交通機電工程
Rail Transit E&M Engineering

- **軌道機電與水電環控**
  Rail E&M and Environmental Control Systems (ECS)
- **交通號誌與通訊整合**
  Signaling & Communications Integration
- **牽引供電與變電設施**
  Traction Power & Substation Facilities

02 營建、基建與機電整合服務
Building, Infrastructure & E&M Integration Services

- **機電系統核心整合**
  Core E&M System Integration
- **綠能基建與傳統能源轉型**
  Green Energy Infrastructure & Conventional Energy Modernization
- **商辦與集合住宅機電工程**
  Commercial & Residential Building E&M Engineering
- **雲端數據中心 (IDC) 機電工程**
  Cloud Data Center (IDC) E&M Engineering
- **公共建築與大型場館機電工程**
  Public Buildings & Large-scale Venues E&M Engineering
- **高端醫療與生技機電整合工程**
  Advanced Healthcare & Biotechnology MEP Integration

軌道交通機電工程

Rail Transit E&M Engineering

累積全台多條捷運及輕軌系統之軌道建設實務經驗，具備涵蓋土木、機電、號誌與通訊等專業之「全系統、跨專業」整合能力。專精於精密設備安裝與系統介面測試驗證，並以嚴謹的工程邏輯梳理各子系統介面衝突，確保軌道核心機電系統安全、穩定運作。

Drawing upon extensive practical experience in rail transit construction across numerous MRT and light rail systems throughout Taiwan, our teams possess full-system, cross-disciplinary integration capabilities encompassing civil, E&M, signaling, and communications. We specialize in precision equipment installation and rigorous system interface verification, applying disciplined engineering logic to streamline subsystem interface conflicts and ensure the safe and reliable operation of core rail E&M systems.

軌道機電全系統整合，確保安全穩定運行。

Full-system rail E&M integration ensuring safe and reliable operations.

軌道機電與水電環控
Rail E&M and Environmental Control Systems (ECS)

負責車站及隧道內高低壓供電、通風空調、給排水及消防監控系統之建置。高低壓供電系統規劃電力幹線與變電設備，確保供電穩定性；通風空調系統針對公共區、機房及隧道區段設計分區溫度調節與通風換氣機制；給排水系統整合民生用水供應、污廢水排放及隧道排水設施；消防監控系統建構火警感知、警報發布及滅火設備連動機制。透過系統介面整合與控制邏輯協調，達成整體環控效能最佳化。

We are responsible for the establishment of High/Low Voltage (HV/LV) power supply, HVAC (Heating, Ventilation, and Air Conditioning), plumbing and drainage, and fire monitoring systems within stations and tunnels. The HV/LV power supply system involves the strategic planning of main power feeders and substation equipment to ensure unwavering power stability. For HVAC systems, our engineers design zoned temperature control and ventilation mechanisms tailored specifically for public concourses, equipment rooms, and tunnel segments. The plumbing and drainage systems integrate domestic water supply, wastewater discharge, and specialized tunnel drainage facilities. Furthermore, the fire monitoring systems we build construct a robust safety net encompassing fire detection, alarm broadcasting, and the interlocking mechanisms of firefighting equipment. Through seamless system interface integration and the coordination of complex control logic, we achieve the total optimization of environmental control performance.

軌道隧道工程，展現城市軌道基礎建設的核心運作空間。
Rail tunnel infrastructure forming the backbone of urban transit systems.

消防與機電管線系統建置，確保軌道設施安全與穩定運行。
Fire protection and MEP piping systems ensuring the safety and reliability of rail facilities..

交通號誌與通訊整合
Signaling & Communications Integration

提供號誌設備安裝、纜線佈放及系統介面整合測試服務。號誌設備安裝涵蓋軌旁設備、車載設備及控制中心設備之定位與架設，確保各項感測器與執行器之運作精確度；纜線佈放依循軌道沿線環境特性規劃管溝路徑與防護措施，確保信號傳輸品質；系統介面整合測試則針對號誌與通訊系統間之數據交換與連動機制進行驗證，確保行車控制指令與通訊傳輸之即時性與可靠度，滿足軌道營運對安全與效率之高標準要求。

Services include comprehensive signaling equipment installation, cable deployment, and system interface integration testing (SIT). Our installation expertise encompasses the precise positioning and mounting of wayside, on-board, and control center equipment, ensuring the absolute operational accuracy of all sensors and actuators. For cable deployment, we meticulously plan duct bank routing and protective measures based on the specific environmental characteristics along the rail corridor to safeguard signal integrity and transmission quality. Furthermore, the system interface integration testing validates critical data exchange protocols and interlocking mechanisms between signaling and communication systems. This process ensures the real-time responsiveness and unwavering reliability of train control commands and data transmissions, strictly adhering to the highest global standards for rail safety and operational efficiency.

軌道號誌系統建置，精準掌控列車運行節奏。
Rail signaling systems enabling precise control of train operations.

牽引供電與變電設施
Traction Power & Substation Facilities

執行牽引變電站 (TSS) 及電力調度系統之安裝工程。牽引變電站負責將高壓輸電轉換為軌道車輛適用之電力規格，涵蓋主變壓器、整流器、開關設備及保護電驛之安裝與測試，確保電力轉換效率與故障隔離能力；電力調度系統整合沿線各變電站之運轉數據，透過中央監控平台進行即時電力調配與負載管理，因應尖峰時段供電需求與異常狀況之應變處理。藉由穩定之電力供應與精準調度，為軌道車輛提供連續動力來源，確保全線營運不中斷。

Our technical teams execute specialized installation projects for Traction Substations (TSS) and Power Dispatching Systems. The TSS is responsible for converting high-voltage transmission into the specific power requirements suitable for rail vehicles, encompassing the installation and testing of main transformers, rectifiers, switchgear, and protective relays to ensure peak power conversion efficiency and robust fault isolation capabilities. The Power Dispatching Systems integrate operational data from all substations along the rail corridor via a centralized monitoring platform. This enables real-time power allocation and load management, effectively addressing peak-hour demands and providing rapid contingency response to abnormal conditions. Through stable power supply and precision dispatching, we provide a continuous and reliable power source for rail vehicles, guaranteeing uninterrupted operations across the entire line.

牽引變電站轉換高壓電力，供應軌道系統牽引電源。
Traction substations convert high-voltage power into traction power for rail systems.

架空接觸網沿線供電，構成軌道電氣化供電網絡。
Overhead catenary systems supply continuous traction power along the railway.

營建、基建與機電整合服務

Building, Infrastructure & E&M Integration Services

深耕營建與基礎建設機電工程，具備公共建築、產業場域及商辦住宅之完整實績，為各類型設施提供穩定、安全、高效之機電解決方案。

Deeply rooted in the building and infrastructure E&M (Electrical & Mechanical) engineering sector, our organization boasts a comprehensive track record across public buildings, industrial facilities, and commercial/residential developments. We provide stable, secure, and high-efficiency E&M solutions tailored to the rigorous operational requirements of diverse facility types.

高壓變電站為現代電力基礎建設的重要節點。
High-voltage substations are critical nodes of modern power infrastructure.

機電系統核心整合
Core E&M System Integration

具備高低壓供配電、給排水、空調環控、消防及智慧監控系統之全盤整合能力。供配電系統涵蓋從高壓受電至低壓用電之完整規劃；給排水系統整合民生用水、消防蓄水及廢水處理之管線配置；空調環控系統針對場域需求規劃溫濕度調節與通風換氣；消防系統建構警報感知與滅火設備之主動防護機制；智慧監控系統則串接各子系統運轉數據，提供即時監視與異常警示。以嚴謹工程邏輯梳理跨系統介面，確保設施運轉之穩定、安全與高效。

We possess holistic integration capabilities for HV/LV power distribution, plumbing and drainage, HVAC (Heating, Ventilation, and Air Conditioning) environmental control, fire protection, and intelligent monitoring systems. Our power distribution services cover comprehensive planning from high-voltage intake to low-voltage end-use. The plumbing and drainage systems integrate pipeline configurations for domestic water supply, fire reserve storage, and wastewater treatment. For environmental control, we design temperature/humidity regulation and ventilation mechanisms tailored to specific site requirements. Our fire protection systems establish active defense mechanisms through advanced alarm sensing and firefighting equipment interlocking. Furthermore, the intelligent monitoring system integrates operational data from all sub-systems, providing real-time oversight and anomaly alerts. By applying rigorous engineering logic to streamline cross-system interfaces, we ensure the unwavering stability, safety, and efficiency of facility operations.

電廠電壓控制與配電設備，負責電力調度與電壓管理。
Plant voltage control and distribution equipment for power regulation and voltage management.

電子控制中心整合系統運行資訊，實現集中監控與調度。
Electronic control rooms integrate system data for centralized monitoring and control.

綠能基建與傳統能源轉型
Green Energy Infrastructure & Conventional Energy Modernization

深耕綠能基礎建設與傳統電廠升級兩大主軸。於綠能領域，投入再生能源發電設施之機電工程，涵蓋發電設備安裝、電力匯集系統建置與併網工程；於傳統電廠領域，專注於既有電廠機電系統之更新與效能提升。同時具備高壓變電站、輸配電網路與儲能系統 (BESS) 之整合建置能力，從電源端至電網端完整串接，強化電力系統之調度彈性與備援能力，助力國家能源轉型與電網韌性提升。

Our commitment remains strong in two strategic pillars: the development of green energy infrastructure and the modernization of traditional power plants. In the renewable sector, our E&M engineering expertise encompasses the installation of power generation equipment, the construction of power collection systems, and comprehensive grid-tie engineering. For traditional power facilities, we specialize in retrofitting existing E&M systems to significantly enhance operational efficiency. Furthermore, our integrated capabilities extend to high-voltage substations, transmission and distribution (T&D) networks, and Battery Energy Storage Systems (BESS). By providing seamless connectivity from the power source to the grid, we strengthen dispatching flexibility and backup capacity, actively contributing to the national energy transition and the enhancement of grid resilience.

再生能源發電設施，建構多元能源供應架構。
Renewable energy generation facilities supporting diversified power infrastructure..

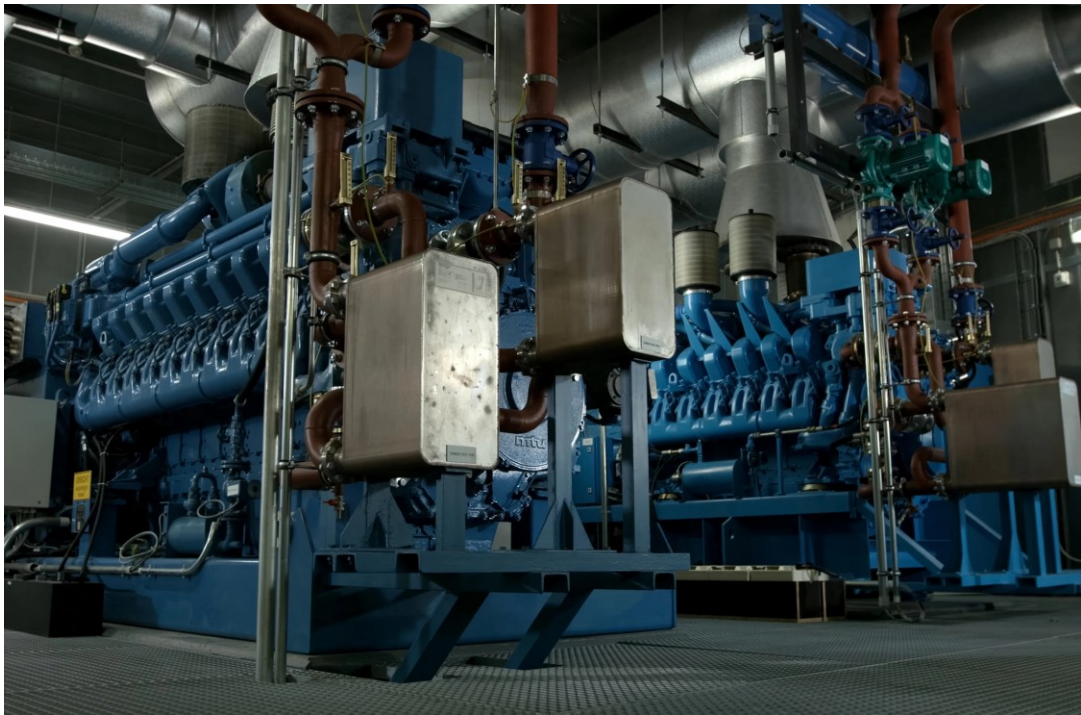
現代化電池儲能系統，支援小型企業能源儲存與用電管理。
Modern battery storage systems supporting energy storage and power management for small businesses.

Mariveles 電廠變電站主變壓器設備，負責電力升降壓與電網銜接。
Main transformer facilities at the Mariveles Power Plant substation, enabling voltage transformation and grid interconnection.

雲端數據中心(IDC)機電工程
Cloud Data Center (IDC) E&M Engineering

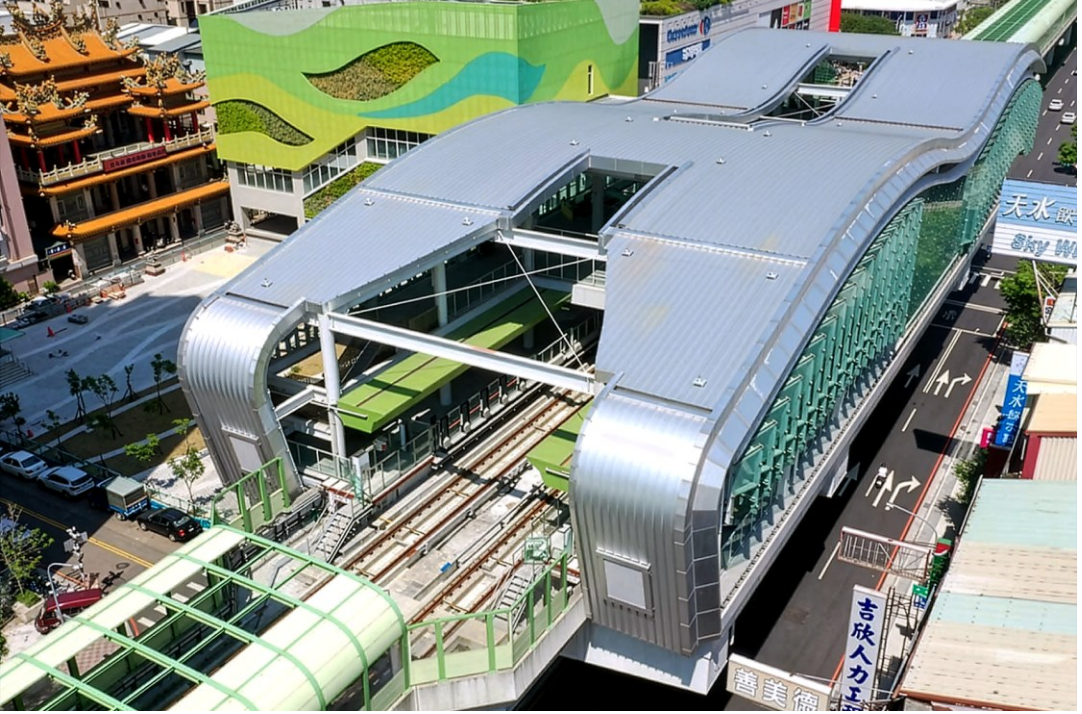
具備雲端數據中心機電整合專業能力，從電力基礎建設著手，涵蓋 161kV 高壓供電系統引接、不斷電系統 (UPS) 與備援電力配置，建構多層級電力備援機制。導入儲能系統調度介接，強化電力供需調節能力。空調系統採低溫設計滿足高密度伺服器散熱需求，維持機房恆溫恆濕環境；消防系統採用特殊氣體設計，兼顧滅火效能與設備安全。全場域導入智慧環控監測系統，即時掌握各項設備運轉狀態，為 AI 運算與雲端服務提供高可靠度之基礎設施支撐。

Expertise in Cloud Data Center (IDC) E&M integration begins with robust power infrastructure, spanning 161kV high-voltage power lead-in, Uninterruptible Power Supply (UPS) systems, and redundant power configurations to establish multi-tier power redundancy mechanisms. We integrate Battery Energy Storage Systems (BESS) into our dispatching interfaces to significantly enhance power supply-demand regulation. To address the intense heat dissipation requirements of high-density servers, our cooling solutions utilize specialized low-temperature designs that maintain precise constant temperature and humidity levels. For fire protection, we employ gaseous suppression systems that balance extinguishing efficiency with the absolute safety of sensitive electronic equipment. Furthermore, by deploying site-wide intelligent environmental monitoring, we maintain real-time oversight of all operational states, providing high-reliability infrastructure support essential for AI computing and mission-critical cloud services.



雲端數據資料中心機房，承載高密度運算與資料處理。
Cloud data center server halls supporting high-density computing and data processing.

資料中心冷卻系統設備，維持機房穩定溫控環境。
Data center cooling systems maintaining stable thermal conditions for server operations.



公共建築與大型場館機電工程
Public Buildings & Large-scale Venues E&M Engineering

承攬車站、購物商場、巨蛋、旅館、展覽館及辦公大樓等公共建築之機電系統工程。高低壓供配電系統依場域用電特性進行負載配置；給排水系統整合民生用水、污廢水處理及雨水回收利用；空調環控系統針對不同空間機能規劃分區溫濕調節；消防系統建構從警報感知、避難引導至滅火設備之完整防護網；智慧監控系統串接各子系統運轉狀態，提供即時監視與數據整合。結合土木營建介面梳理，確保設施營運之安全與穩定。

We undertake comprehensive E&M system engineering for a wide array of public facilities, including transit stations, shopping malls, stadiums, hotels, exhibition centers, and commercial office towers. Our HV/LV power distribution systems are strategically engineered with load configurations optimized for the unique electrical characteristics of each venue. For plumbing and drainage, we integrate domestic water supply, sewage treatment, and rainwater harvesting and reclamation systems. Our environmental control solutions are designed with zoned temperature and humidity regulation tailored to diverse spatial functions. Furthermore, our fire protection systems establish a complete safety net, encompassing everything from early alarm sensing and evacuation guidance to active firefighting equipment. By interconnecting the operational status of all sub-systems, our intelligent monitoring platforms provide real-time oversight and data integration. Through the meticulous streamlining of interfaces with civil construction, we ensure the long-term safety and operational stability of every facility we serve.

臺中捷運綠線水安宮站，結合城市交通與公共空間之現代化軌道車站。
Shui-An Temple Station of the Taichung MRT Green Line, integrating urban transit and public space.

台電離岸風電維運中心，支援離岸風力發電設備之運維與管理。
Taipower Offshore Wind Operations and Maintenance Center supporting offshore wind power operations.

高階醫療與生技產業機電整合工程
Advanced Healthcare & Biotechnology MEP Integration

本公司具備高階醫療與生技產業特殊場域之整體機電整合能力，代表性實績包括 林口長庚紀念醫院質子治療中心核心機電系統整合工程。該專案涵蓋質子加速器專用精密配電系統、閉迴路冷卻水系統 (CHW System)、恆溫恆濕空調環境控制 (HVAC) 以及氣體滅火系統之整合建置。全案依循高穩定度與高可靠度設計原則，確保醫療設備運轉之安全性與連續性，並符合醫療場域對施工精度與系統穩定度之嚴格標準。

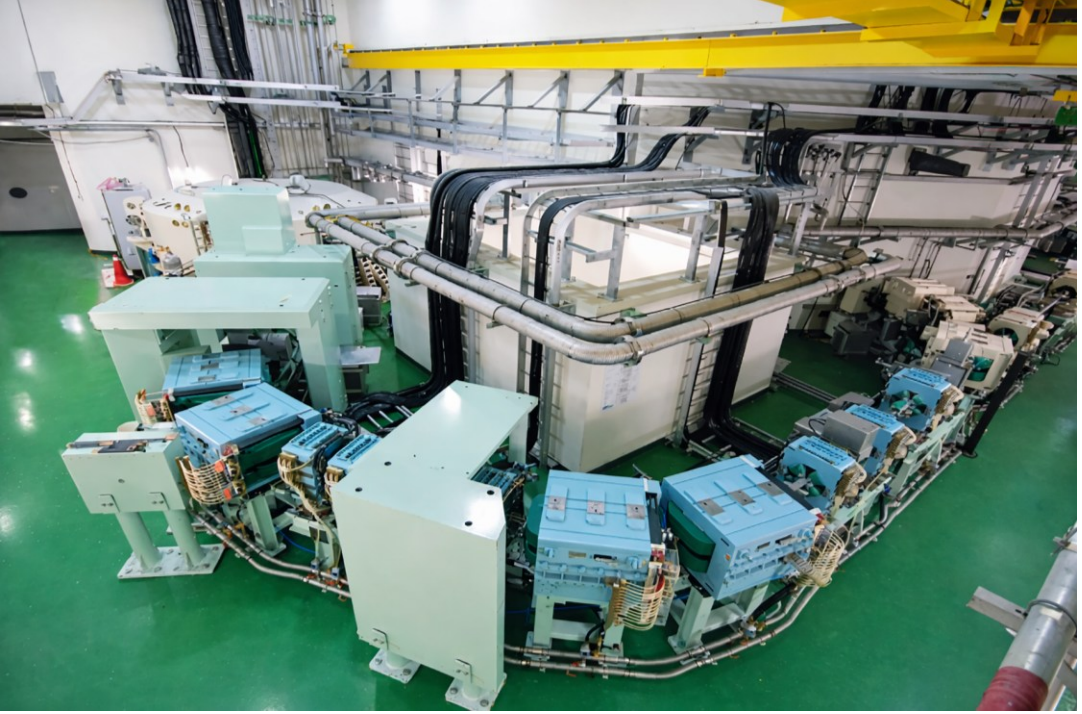
在此基礎上，本公司將高階機電整合技術延伸應用於生技製藥廠房、無塵室與高規格實驗室工程，提供自規劃設計、施工建置至測試驗證 (Testing & Commissioning) 之全流程服務。工程範疇涵蓋潔淨室污染控制、GMP 製程管線配置、環境參數精準監控系統（溫濕度、壓差、潔淨度）以及系統驗證與文件化作業，協助業主符合 GMP、PIC/S 及相關法規與產業認證要求，打造高安全性、高穩定度之專業生技製造環境 。

Our company possesses comprehensive expertise in the integration of mission-critical MEP systems for advanced healthcare and biotechnology facilities. A representative benchmark project is the core MEP integration works for the Proton Therapy Center at Chang Gung Memorial Hospital.

The project encompassed precision power distribution systems dedicated to the proton accelerator, closed-loop chilled water systems (CHW), temperature and humidity-controlled HVAC systems, and integrated clean agent fire suppression systems. The design and execution were carried out under stringent reliability and stability standards to ensure uninterrupted operation of high-value medical equipment, meeting the exceptionally demanding technical specifications and construction tolerances required in advanced medical environments.

Building upon this foundation, we have extended our high-level MEP integration capabilities to biotechnology manufacturing plants, cleanrooms, and high-specification laboratory facilities. Our services cover the full project lifecycle—from planning and system design to construction, testing, and commissioning.

Scope of work includes cleanroom contamination control, GMP process piping engineering, precision environmental monitoring systems (temperature, humidity, differential pressure, and cleanliness classification), as well as system validation and documentation. We support clients in achieving compliance with GMP, PIC/S, and other applicable regulatory and industry certification requirements, delivering highly reliable, secure, and performance-driven biotechnology production environments.



質子加速器主體設備，用於產生高能質子束供治療使用。
Main proton accelerator equipment used to generate high-energy proton beams for therapy.

質子治療用迴轉加速器機架（旋轉旋轉機構），協助質子束在治療室內精準導引。
Gantry structure of the proton therapy system, enabling precise beam delivery within the treatment room.

商辦與集合住宅機電工程
Commercial & Residential Building E&M Engineering

為高端商辦、智慧住宅及大型集合社區提供強弱電、空調環控、給排水及消防系統之規劃施工。強弱電系統依據建築機能規劃電力幹線與資訊網路配置；空調環控系統設計分區溫度調節與通風換氣機制，兼顧舒適性與節能效益；給排水系統整合民生用水供應、污廢水排放及雨水回收利用；消防系統建構完整防護機制。統籌土建與機電介面協調，打造高品質之居住與辦公空間。

Our teams provide expert planning and construction services for high-end office towers, smart residences, and large-scale residential communities, covering electrical and extra-low voltage (ELV) systems, HVAC environmental control, plumbing and drainage, and fire protection. Our electrical and ELV solutions involve the strategic configuration of main power feeders and IT network architectures tailored to the specific functions of the building. For environmental control, we design zoned temperature regulation and ventilation mechanisms that strike an ideal balance between occupant comfort and energy efficiency. The plumbing and drainage systems integrate domestic water supply, sewage discharge, and sustainable rainwater harvesting and reclamation. By meticulously coordinating the interfaces between structural civil works and MEP (Mechanical, Electrical, and Plumbing) systems, we deliver high-quality, seamless environments for both living and working.

高層建築電梯井道與垂直運輸系統，支撐大型建築之高效人流運輸。
Elevator shaft and vertical transportation system supporting efficient mobility in high-rise buildings.

06
SMART CONSTRUCTION & DIGITAL TRANSFORMATION
智慧施工與數位轉型

因應營建產業數位化趨勢，吉大工程推動全方位數位轉型策略，以資料為核心，重塑企業營運與工程管理之各項環節。

In response to the overarching digitalization trends within the construction industry, we are spearheading a comprehensive digital transformation strategy. By placing data at the core of our vision, we are reshaping every facet of our corporate operations and project management:

雲端協作與工程管理平台
Cloud Collaboration & Project Management Platform

導入BIM 360 等雲端協作平台，實現設計、施工、品管之即時資訊串聯，建立工地現場行動化查核機制，確保工程品質與進度可視、可控、可追溯。

We implement cloud collaboration platforms such as BIM 360 to achieve seamless, real-time information synchronization across design, construction, and quality control phases. By establishing mobile-based on-site inspection mechanisms, we ensure that project quality and progress remain fully visible, controllable, and traceable throughout the project lifecycle.

企業資源規劃與智慧營運
Enterprise Resource Planning (ERP) & Smart Operation

建構企業資源規劃 (ERP) 系統，整合人事、財務、合約管理等核心功能，簡化行政流程，提升跨部門協作效率，實現無紙化綠色辦公。

The firm is constructing a comprehensive Enterprise Resource Planning (ERP) system to integrate core business functions, including human resources, finance, and contract management. By streamlining administrative workflows and enhancing cross-departmental collaboration efficiency, we aim to achieve a fully paperless, green office environment.

智慧採購與供應鏈管理
Smart Procurement & Supply Chain Management

建立供應商協同管理平台，串接詢價、比價、議價至訂單交付之完整流程，透過資料分析優化採購決策，降低採購成本與供應鏈風險。

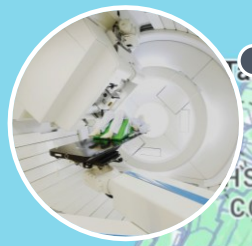
Establishing a vendor collaboration platform streamlines the end-to-end procurement cycle—spanning from Request for Quotation (RFQ), price comparison, and negotiation to final order delivery. By leveraging data analytics to optimize procurement decision-making, we effectively reduce purchasing costs and mitigate potential supply chain risks.

物料管控與庫存優化
Material Control & Inventory Optimization

導入物料管理系統 (MMS) ，結合 RFID 或 QR Code 技術，實現物料入出庫即時追控，有效降低庫存呆料與工地物料遺失風險。

Implementation of a Material Management System (MMS) integrated with RFID or QR Code technologies achieves real-time tracking and control of both inbound and outbound material movements. By doing so, we effectively minimize dead stock (slow-moving inventory) and mitigate the risk of material loss at construction sites, ensuring optimal resource efficiency and site security.

工程實績分佈 PROJECT DISTRIBUTION



PROJECTS CATEGORIES

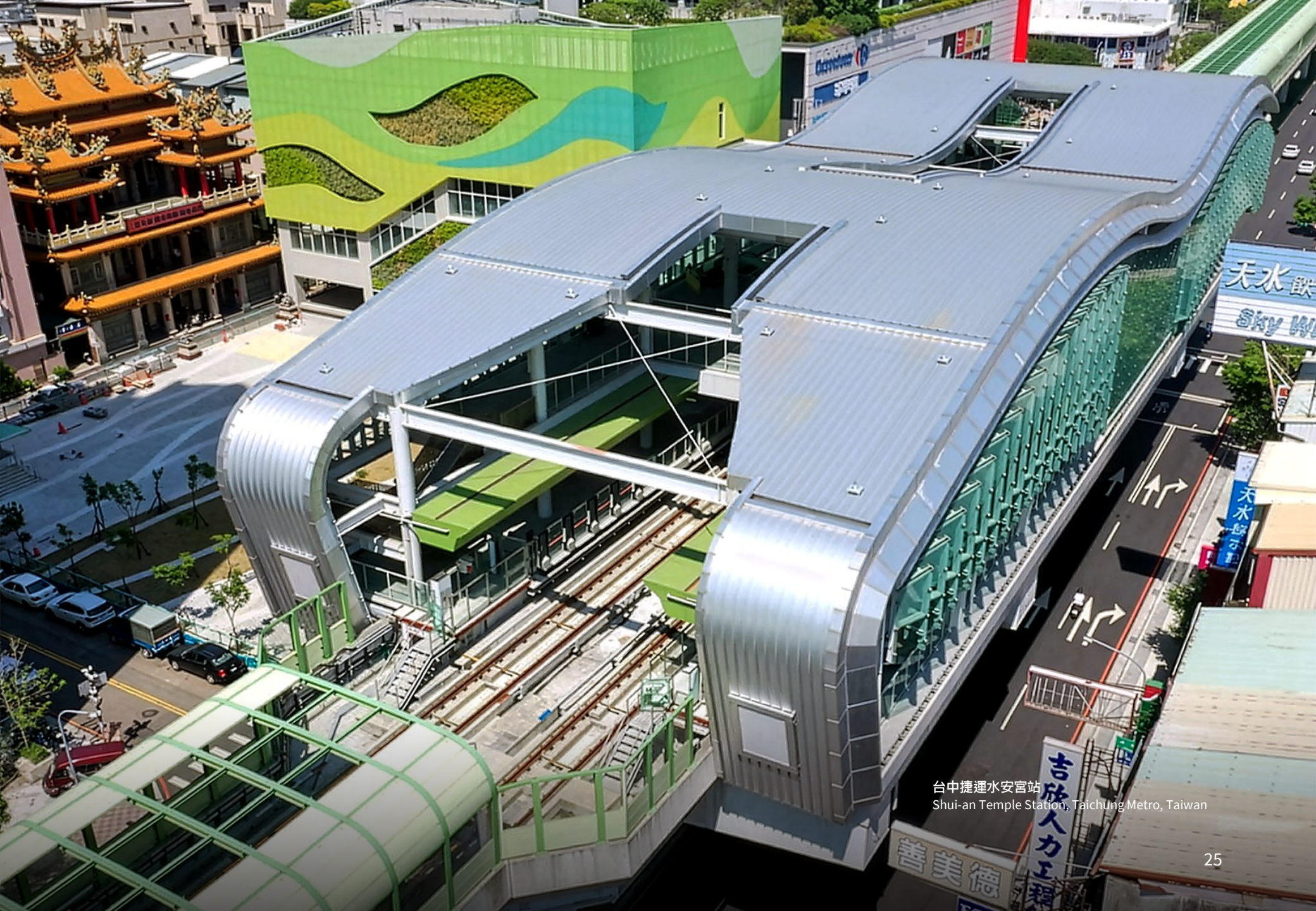
專案類別

- Rail Engineering 軌道交通
- Energy Project 能源工程
- Building Services 建築機電
- Medical Engineering 醫療機電
- Marine Engineering 海事工程
- Mechanical 機械安裝
- Fire Protection 消防工程
- System Integration 系統整合

工程實績 PROJECT PORTFOLIO

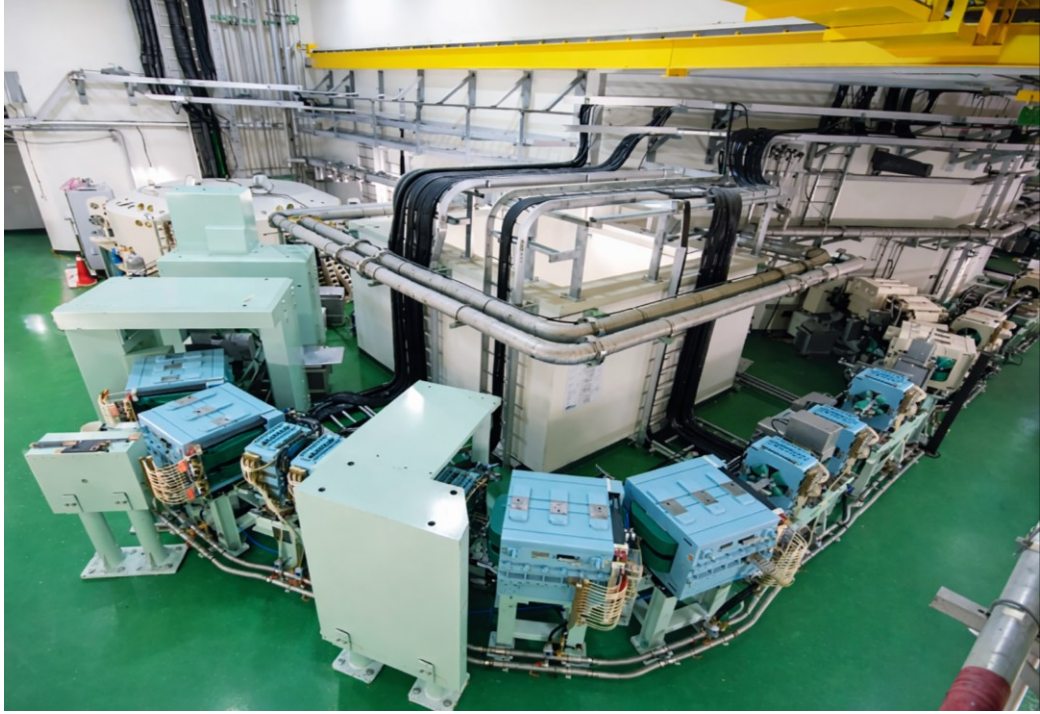
序號 No.	年度 Year	專案名稱 Project Name	客戶 Client	業主 Orderer	工程類別 Category	狀態 Status
1	2011	**林口長庚醫院質子暨RTO治療中心：機電與設備安裝工程** Linkou CGMH Proton & RTO Therapy Center: E&M & Equipment Installation	**長庚醫院** CGMH	**亞通** ATE	**醫療機電工程** Medical E&M Engineering	**完工** Completed
2	2015	**高雄長庚醫院質子暨RTO治療中心：機電與管路系統工程** Kaohsiung CGMH Proton & RTO Therapy Center: E&M & Piping Works	**長庚醫院** CGMH	**亞通** ATE	**醫療機電工程** Medical E&M Engineering	**完工** Completed
3	2016	**(MPGC) 1.5 萬噸級海水取排水系統：鋼板樁與角樁工程** (MPGC) 151,200 T/H Sea Water Intake & Discharge System: Piling Works	**SMC** SMC	**亞通** ATE	**海事基礎工程** Marine Foundation Works	**完工** Completed
4	2019	**台中電廠太陽光電新建工程 (設計/採購/施工)** Taichung Power Plant Solar PV Project (EPC)	**台電** TPC	**亞通** ATE	**再生能源 EPC** Renewable Energy EPC	**完工** Completed
5	2019	**安坑輕軌：水電、環控與機電整合工程** Ankeng LRT: E&M, HVAC & Environmental Control Systems	**新亞建設** NEWASIA	**亞通** ATE	**軌道機電系統** Rail E&M Systems	**完工** Completed
6	2021	**大潭電廠七號機：機械設備安裝工程** Datan Power Plant Unit 7: Mechanical Equipment Installation	**台電** TPC	**亞通** ATE	**機械設備安裝** Mechanical Installation	**完工** Completed
7	2021	**大潭電廠七號機：消防管線系統工程** Datan Power Plant Unit 7: Fire Protection Piping Systems	**台電** TPC	**亞通** ATE	**消防工程** Fire Protection Systems	**完工** Completed
8	2022	**台立方案：再生能源燃料進料與存儲系統整合** Renewable Energy Biomass Fuel Handling & Storage System Integration	**台朔重工** FHI	**台朔重工** FHI	**土木與系統整合** Civil & System Integration	**完工** Completed
9	2023	**忠泰世界 (JUT World) 新建工程：弱電與消防系統整合** JUT World Development: ELV & Fire Protection Systems Integration	**忠泰建設** JUT	**橋正** Chiao Jen	**建築機電工程** Building E&M Services	**完工** Completed
10	2023	**台電離岸風電運維中心：機電、給排水及空調工程** TPC Offshore Wind O&M Center: E&M, Plumbing & HVAC Works	**台電** TPC	**瑞助營造** Reiju	**能源基礎設施機電** Energy Infrastructure E&M	**在建** IN Construction
11	2024	**桃園捷運綠線系統整合工程** Taoyuan MRT Green Line System Integration Project	**西門子** Siemens	**亞通** ATE	**軌道交通號誌系統** Rail Signaling Systems	**在建** IN Construction
12	2024	**豐坪溪水力發電計畫：水工機械與壓力鋼管工程** Fengping Hydropower Project: Hydro-mechanical & Penstock Works	**森威能源** Shinfox	**亞通** ATE	**水力發電工程** Hydropower	**在建** IN Construction

Updated: Apr. 2026



台中捷運水安宮站
Shui-an Temple Station, Taichung Metro, Taiwan

安坑輕軌
Ankang Light Rail, New Taipei City, Taiwan



林口長庚質子暨放射治療中心
Linkou Chang Gung Proton and Radiation Therapy Center, Taiwan

花蓮豐坪溪水力發電廠
Fengping River Hydropower Plant, Hualien, Taiwan

菲律賓馬利韋萊斯火力發電廠
Mariveles Thermal Power Plant, Philippines

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吉大工程之每一步，皆為回應城市發展需求與環境變遷挑戰。從過去三十餘年之紮根，至未來智慧轉型之布局，公司始終篤信：工程不僅是鋼筋水泥與機電管線之組合，更承載人們生活與夢想。展望未來，吉大工程將持續深化機電核心技術，對接國家能源轉型與淨零碳排目標，以具體行動實踐企業社會責任，與城市同步成長，打造更美好之生活軌跡。

Every step we take is a deliberate response to the evolving needs of urban development and the mounting challenges of environmental change. From our deep-seated roots established over the past thirty years to our strategic roadmap for future smart transformation, we have always believed that engineering is far more than a mere combination of concrete, steel, and E&M systems—it is the vital vessel that carries people's lives and dreams. Looking ahead, our teams will continue to refine our core E&M technical expertise, aligning our efforts with national energy transition and net-zero carbon goals. Through tangible actions, we fulfill our corporate social responsibility, growing in perfect synchrony with our cities to shape a better trajectory for all life.