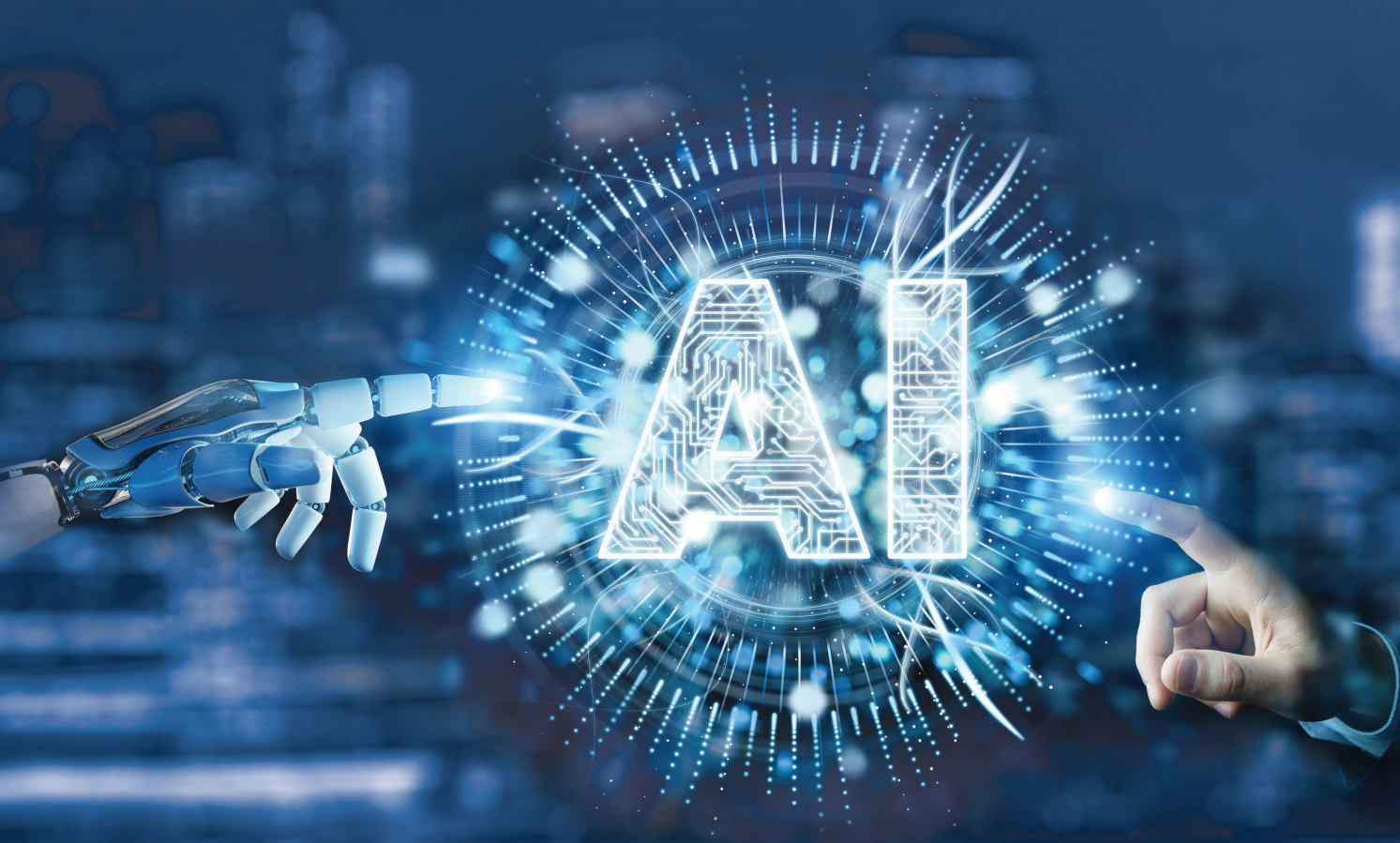


樂訊 2020 Issue No. 2

VOICE **OF** ATAL



AI and IoT: Technology in Action

**人工智能與物聯網
科技應用 全力起動**



ATAL Engineering Group
安樂工程集團

Chairman's Message

集團主席的話



Technology has become increasingly important in driving economic growth and changing the way we all work and live. ATAL is a pioneer in the application of innovative technologies such as Artificial Intelligence (AI), Internet of Things (IoT) and data analytics and has recently launched several ground-breaking solutions to help clients stay ahead of the competition.

Clients seeking to enhance their chiller performance will find the perfect solution in our new AI-driven Energy Analytics Platform and our unique fault detection and diagnostics software to optimise the performance of their entire HVAC systems. For property owners and operators, our IoT Hub - Smart Building Platform enables them to monitor all of a building's E&M systems and analyse all related real-time data to improve energy saving, E&M performance, tenant experience, sustainability and overall productivity.

Meanwhile, our new Anlev Predictive Maintenance and Remote Monitoring System, which uses IoT and big data analytics to enhance lift safety and reliability while saving site manpower and improving overall maintenance effectiveness.

To help fight COVID-19, some of our colleagues have provided round-the-clock E&M support to hospitals and quarantine facilities. We would like to thank them for their contributions to maintain ATAL's high quality service even during these challenging times. Despite of this difficult period, we continued to secure new businesses, such as a major contract for the In-Situ Reprovisioning of Sha Tin Water Treatment Works (South Works) Ancillary Facilities.

We also received awards from leading financial media and a financial analysts association for our outstanding performance as a listed company, within only one year of our listing. Anlev's work to modernise the Central-Mid-Levels Escalators and Walkway System also won the first place in the "Escalators, Modernisation" category of Elevator World's 2021 Project of the Year contest.

As 2020 draws to a close, we are mindful that the global pandemic has brought economic hardships to many families, and that we must continue to give back to the community in these difficult times. I would like also to take this opportunity to thank all our clients and staff for their support in the past year, and wish everyone a healthy, happy and prosperous 2021.

科技不但對促進經濟發展日益重要，更改變了我們工作及生活模式。安樂工程為業內採用創新科技的先驅，包括運用人工智能、物聯網及大數據分析等，最近更推出多個創新方案，有助客戶加強競爭優勢。

為提升樓宇的空調系統表現，我們推出了「人工智能驅動能源分析平台」，及我們專屬的故障檢測和診斷軟件，大幅提升整個暖通空調系統的效能。此外，我們為業主及物業管理公司設計了「物聯網中樞—智能樓宇平台」，方便客戶監察其樓宇管理系統，平台更會分析實時數據，用以加強樓宇的節能效益、提升機電設備表現、優化租戶體驗、促進可持續發展及提升整體生產力。

安力電梯也推出了「安力預測性保養及遙距監察系統」，運用物聯網和大數據分析技術令升降機更安全可靠，並可節省人手及提升整體維修保養效率。

為了對抗新型冠狀病毒病，我們的醫療工程團隊日以繼夜，為多家醫院和檢疫中心提供機電支援服務，在疫情下的艱難時刻，仍緊守集團對優質工程和誠摯服務的極高要求。與此同時，集團也繼續贏得多份新工程合約，例如為沙田濾水廠南廠相關設施進行原地重置工程等。

另一方面，我們最近贏得多個獎項。集團在上市後首年，已獲得著名財經媒體和金融分析機構頒發獎項，表揚安樂工程的出色表現。安力電梯為中環半山自動扶梯系統進行的更新工程項目，更奪得國際知名雜誌《ELEVATOR WORLD》頒發「2021年度工程項目獎」自動梯現代化工程類別的冠軍。

2020年即將完結，惟全球疫情仍然嚴峻，為不少家庭帶來經濟困難，因此我們會繼續致力回饋社會，共度時艱。過去一年，所有客戶和同事都全力支持安樂工程，我謹此致以最深切的謝意，並祝願大家2021年身體健康、生活愉快。

Ir Dr Otto Poon
潘樂陶博士工程師

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AI and IoT: Technology in Action

人工智能與物聯網 科技應用 全力起動

Artificial Intelligence (AI), Internet of Things (IoT) and big data analytics are transformative technologies that can improve our quality of life in ways not previously possible.

人工智能、物聯網和大數據分析技術正以前所未有的速度提升我們的生活質素。

Always on the leading edge of R&D and technology applications, ATAL has been working with clients to make use of these and other technologies on several pioneering projects. “ATAL strongly encourages its business units to innovate, providing financial support to commercialise some of their new ideas,” said Dave Chan, Chief Executive of Information, Communications and Building Technologies.

Three recent ATAL projects stand out as ground breaking: our AI-driven energy-saving platform for office building HVAC systems; an IoT Hub - Smart Building Platform for one-stop building systems monitoring and analysis; and an IoT-enabled predictive maintenance and remote monitoring system for lifts. We spoke to ATAL executives to find out more.

AI-driven Platform to Optimise HVAC Systems

Smart and efficient energy optimisation is a must for modern buildings. ATAL was a pioneer in the sector with the introduction of its Cloud-based Chiller Plant Energy Management Platform in 2019, winning awards and delivering energy efficiency in a number of Grade A office buildings. ATAL has now launched a new version of the system, called the AI-driven Energy Analytics Platform. Using AI, big data, cloud computing and intelligent analytics, the new platform has enhanced Fault Detection and Diagnostics (FDD) abilities and can be applied not only to chiller plants but to entire HVAC systems to optimise performance. The FDD capability is at the core of the system that differentiates it from the competition.

The new platform has three main benefits. First is optimisation, using physics-guided machine learning to ensure that the entire HVAC system is running at optimal levels at all times. Second is FDD, which can automatically detect and

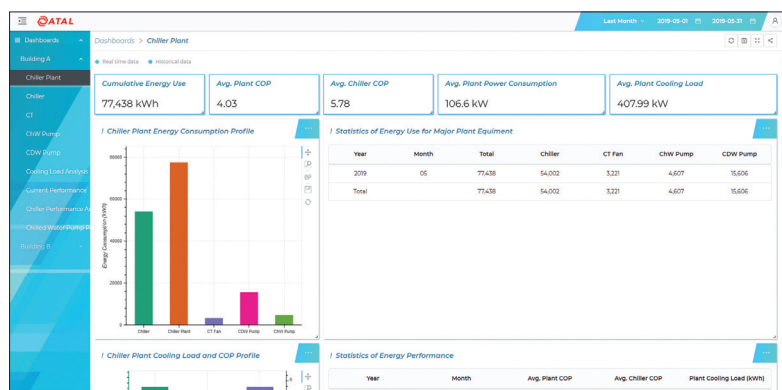


安樂工程一直是科技研發的先驅，近年積極與客戶合作，運用人工智能、物聯網、數據分析等技術推出多個創新項目。首席資訊、通訊及屋宇科技總監陳志雄說：「安樂工程一向大力支持各業務單位的創新工作，包括提供財政資源，讓員工將新構思落實，推出市場。」

安樂工程近期推出三個具突破性的項目，包括我們為商廈的暖通空調系統而設的人工智能節能平台、提供一站式樓宇系統監察及分析的「物聯網中樞—智能樓宇平台」、以及一個運用物聯網的升降機預防性維修保養及遙距監察系統。

人工智能驅動平台 優化暖通空調系統

智能及高效的能源優化管理系統對現代建築是不可或缺的。安樂工程作為樓宇管理系統的先驅，於2019年推出「雲端製冷機組能源管理平台」，為全港多幢甲級商廈提升能源效益，更屢獲獎項。集團現推出新版





evaluate faults before they are even noticed and then investigate root causes and recommend trouble-shooting methods. Third is energy visualisation, which enables interactive data visualisation via modular dashboards and provides detailed equipment performance analysis, both for energy efficiency management.

The platform can be applied to companies and buildings of any size, provided the HVAC equipment has data-capturing functions. "With AI, the new platform also provides a good basis for fault prediction," Dave explained. "It should be noted though that the accuracy of prediction would depend on the expert rules derived from the domain knowledge of the HVAC system and also the quality of data." The AI-driven Energy Analytics Platform marks a major step forward in HVAC optimisation and predictive maintenance and is expected to be welcomed by both existing and new clients.

IoT Hub - Smart Building Platform Takes Building Optimisation to New Level

To capture new opportunities arising from IoT and big data technologies, ATAL has built an "IoT Hub - Smart Building Platform" that enables clients to monitor all building management systems and analyse all related real-time data, such as temperature, humidity, energy consumption and water leakage, on one single platform.

The fully integrated platform supports diverse applications encompassing sustainability, preventive maintenance, AI-based energy optimisation, human comfort prediction and even smart toilets, to name a few. Indoor Environment Quality (IEQ), which is vital to the tenant experience, is taken care of, too, providing assessments of air, thermal, lighting, spatial and acoustic quality.

The web-based platform comes with automated fault detection and alarm functions. Easily accessed via a mobile phone or computer by building operators and maintenance personnel anywhere anytime, the platform enables 24x7 monitoring and analysis. It also generates user-friendly

「人工智能驅動能源分析平台」，運用人工智能、大數據、雲端運算和智能分析技術，加強故障檢測和診斷功能。新平台不僅適用於製冷機組，更可應用於整個暖通空調系統，加強樓宇的能源管理效益。故障檢測和診斷功能為此系統的核心功能，亦令其比市面同類系統更為優越。

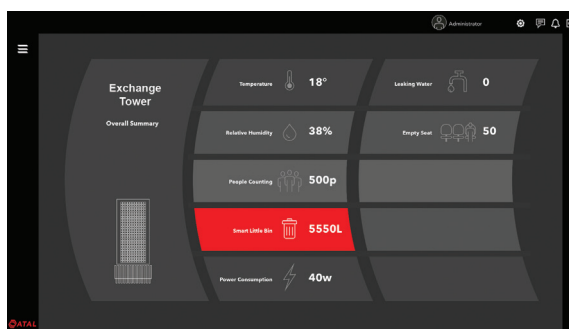
新平台有三大優點。首先，系統的運作效能更佳，平台運用物理導引的機器學習，確保整個暖通空調系統於任何時間，均處於最佳狀態。其次，此平台加強了檢測和診斷功能，能夠於系統發生可見故障前，自動檢測故障並評估對系統的損耗程度，然後展開調查尋找成因及建議解決方法。第三，新平台可透過模組化儀表板，把數據整合成互動式圖像，並詳細分析系統的表現，有助能源效益管理。

不論樓宇和公司規模大小，只要其暖通空調設備具有收集及記錄數據的功能，新平台均可適用。陳志雄說：「配備人工智能後，新平台將更有效檢測故障。可是，檢測故障的準確性，取決於暖通空調系統知識範疇中得出的專家準則和數據質素。」這套由人工智能驅動的能源分析平台，在暖通空調的優化和預測性維修保養方面，邁出了重要一步，預期會廣受客戶歡迎。

「物聯網中樞—智能樓宇平台」進一步優化樓宇表現

為了把握物聯網及大數據技術帶來的商機，安樂工程研發了「物聯網中樞—智能樓宇平台」，讓客戶只需透過一個平台，便即可監察所有樓宇管理系統，並分析全部相關的實時數據，包括溫度、濕度、能源消耗量，甚至漏水情況等。

平台集多功能於一身，能應用於不同情況，如促進可持續發展、預防性維修保養、以人工智能提升能源效益、預測人體舒適度、甚至智能洗手間等。此外，系統亦能協助評估及監察室內環境質素，提供空氣、熱能、照明、空間和音響方面的數據，提升租戶體驗。



平台也設有自動檢測故障及警告功能，方便客戶監察樓宇情況；樓宇管理人員及維修保養員工更可輕易透過手機或電腦，隨時隨地登入平台。平台不但可24小時全天候無間斷監察樓宇及分析數據，更具備數據視像化功能，例如以儀表板呈現歷史數據，方便追蹤及預測樓宇的運作表現，以便提升樓宇操作效率。此外，平台架構簡單，客戶可隨意於平台新增不同功能，以及涵蓋多幢建築物。即使未來需要擴大平台的應用功能，亦非常方便。

「安樂工程不但擅於機電工程，而且擁有資訊科技經驗，可謂市場獨有。由我們研發的物聯網中樞能為客戶帶來不少裨益。」陳志雄說。在採用此平台後，客戶體會到樓宇不論在節能、機電設備效能、租戶體驗、可持續發展和整體生產力方

visualisations, like dashboards of historical statistics to track and predict a building's performance for operational optimisation and continuous improvement. With a scalable architecture, the platform allows for the easy addition of new applications and scales to multiple buildings.

"Given ATAL's unique combination of E&M expertise and information technology experience, which is unrivalled in the market, our IoT Hub offers many benefits," Dave said. Clients using the platform have seen major improvements in energy saving, E&M equipment performance, tenant experience, sustainability and overall productivity. The platform is already up and running with great success in clusters of Grade A commercial buildings, including prime property portfolios in Central and Quarry Bay.

Meanwhile, clients in the air freight logistics industry are also using the platform to monitor the location and the electricity consumption of refrigerating cargoes in their warehouse. Another statutory body's headquarter offices have also adopted the platform and installation works are underway.

Dave noted that data is the key. The more data there is, the more precise the analytics will be, making the applications more effective. The platform is an excellent solution for commercial building owners and operators that have not yet tapped into the vast potential of their E&M data in optimising their buildings' operational efficiency, particularly those with clusters of commercial buildings generating a large amount of data.

Likewise, public sector buildings and infrastructure such as hospitals, airports and even water treatment plants will find the platform a good solution to turn their big data into powerful insights that help them save energy, optimise E&M facility performance and improve user experience. The platform is compatible with all types of IoT network and integrates well with BIM models.

As buildings are the backbone of our urban landscape, the IoT Hub - Smart Building Platform is another powerful addition to the ATAL toolkit to make Hong Kong a smart city.



Anlev Remote Monitoring System to Enhance Lift Safety

Lifts are a part of daily life for everyone in Hong Kong. Anlev Elex Elevator (Anlev), under ATAL Engineering Group, has launched the Anlev Predictive Maintenance and Remote Monitoring System (APMRMS) to enhance lift safety and reliability with the help of IoT and big data analytics technologies.

Using transmission boxes and sensors installed on top of lift cars and in machines rooms, operating data can be collected and sent via broadband or high-speed

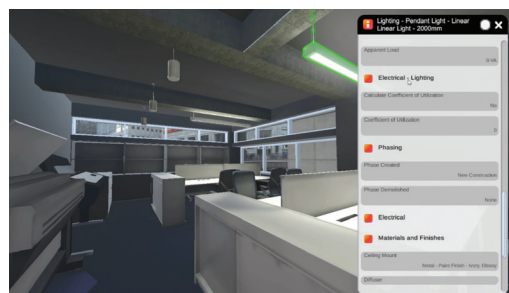
面，都可大幅提升。平台目前已於多個甲級寫字樓中使用，當中包括位於中環和鰂魚涌黃金地段的商業大樓。

此外，航運業客戶也引進了此平台，以監察貨倉內冷凍貨物的位置和冷凍櫃的耗電量。目前，我們亦於一個法定機構總部的辦公室安裝此平台。

陳志雄指出數據是整個平台的關鍵，數據越多，分析越精準，各種應用程式的效能也越高。不過，現時許多業主卻未有充份運用建築物的機電數據，難以提升樓宇的運作效率。此平台正好為業主提供理想方案，尤其是那些蘊藏了大量數據的商業大樓。

同樣，公營機構的辦公大樓以至各種基建設施，如機場、醫院甚至濾水廠，也可運用該平台，將其大數據轉化為有效的分析，以節約能源、提升機電設備表現，和為設施使用者帶來更佳體驗。平台可配合任何一種物聯網網絡運作，與建築信息模擬模型結合的效果也很好。

建築物是城市的骨幹，安樂工程的「物聯網中樞—智能樓宇平台」，是我們為客戶提供的另一重要工具，更有助進一步將香港打造成智慧城市。



物聯網遙距監察 令升降機更安全可靠

除了樓宇管理系統之外，升降機亦可應用人工智能。升降機是我們日常生活的一部分，安樂工程集團旗下的安力電梯有限公司自家研發了「安力預測性保養及遙距監察系統 (APMRMS)」，透過創新技術令升降機更安全可靠。

用戶只需在升降機機廂頂部和機房安裝數據傳輸盒和傳感器，系統便可收集升降機的操作數據，並透過寬頻或高速流動網絡，將數據傳送予伺服器以作分析。APMRMS能夠實時監察升降機的各種操作情況，例如機廂運行超速或異常震動、升降機高低水平出現偏差或關門不當等情況。用戶可簡易地透過電腦或流動電話，監察升降機情況。此外，系統亦可輕易整理各類型的升降機操作數據。首批訂單合共35個系統已提供予機電工程署，現正為政府物料營運中心、北區政府合署和教育局九龍塘教育服務中心等多幢政府大樓安裝系統。

升降機及自動梯總監張夏明說：「升降機安裝了APMRMS後，故障率減少多達兩成。」由於系統利用大數據分析，能預先準確找出異常情況及性能不佳的零件，因此可大幅縮減現場檢查的時間，提高維修保



network to a server for analysis. APMRMS enables real-time monitoring of a wide range of lift conditions, such as car overspeed or abnormal vibration and lift levelling and door closing problems. These can be easily monitored via a computer or mobile phone. Various lift operation statistics can be readily compiled, too. The first order of 35 units has already been supplied to the Electrical and Mechanical Services Department, with installation in progress at various government buildings, including the Government Logistics Centre, North District Government Offices and Kowloon Tong Education Services Centre.

“Lifts installed with APMRMS have seen their breakdown rate reduced by as much as 20%,” said Andy Cheung, Director of Lifts and Escalators. As the system can use big data analysis to accurately pinpoint faults and parts with poor performance in advance, on-site inspection time is shortened while maintenance effectiveness improves. This means that on-site maintenance frequency can be reduced, say from weekly to once every two weeks.

“The system has made it possible for lift performance monitoring to be conducted in a scientific way,” added Andy. “Site manpower cost can be greatly reduced, while also alleviating the city’s labour shortage pressure.”

APMRMS can also be applied to aged lifts and escalators. Anlev is happy to offer the system as an optional feature in its tenders for modernisation works of aged lifts under the Government’s current Lift Modernisation Subsidy Scheme, to help enhance lift safety for the community.

Using Technology for the Common Good

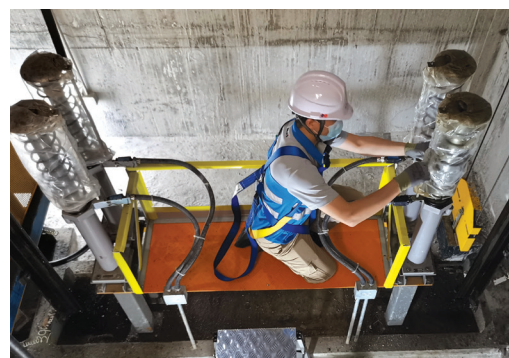
Though the three projects are distinct in nature, they have each broken new ground in their own way by applying AI, IoT and big data analytics. As pointed out by Dave, the market welcomes new ideas as most businesses understand that innovation is key to competitiveness. The COVID-19 pandemic has also expedited the market’s acceptance of technology solutions, such as Anlev’s infrared touchless lift button and escalator handrail steriliser device.

With its track record of diverse and successful technology-driven projects, ATAL will continue to launch new solutions for the benefit of clients and the wider community.

養的成效。換言之，現場維修保養的次數可以減少，例如從每週一次減至每兩週一次。

張夏明補充說：「新系統可更科學地監察升降機性能，現場維修的人力成本可大幅降低，同時也紓緩了本港勞動人手短缺的壓力。」

除了新型升降機外，APMRMS還適用於舊式升降機和自動梯。在政府現行的「優化升降機資助計劃」下，安力電梯樂於讓客戶選擇安裝APMRMS系統，優化其舊式升降機，從而提升社區的電梯安全。



善用科技 惠及市民

儘管上述三個項目的性質截然不同，但是均透過人工智能、物聯網技術及大數據分析，打破傳統，創出新貌。正如陳志雄指出，由於現時大部份企業都明瞭創新是提升競爭力的關鍵，所以市場都非常接受新構思。新型冠狀病毒大流行，亦促使市場加快步伐，勇於接納創新方案。例如安力電梯為抗疫推出的免觸式升降機紅外線按鈕和自動梯紫外光消毒裝置，均受業界歡迎。

安樂工程會從多元的創科項目中汲取經驗，繼續推出不同創新方案，令客戶與公眾受惠。

Rising to the COVID-19 Challenge 應對新冠病毒挑戰

As COVID-19 hit globally in January 2020, ATAL was quick to respond and leverage its E&M expertise to help clients fight the virus. From hospital ward upgrade, maintenance and quarantine works to sanitising air-conditioning systems and coming up with innovative anti-virus solutions for lift buttons and escalator handrails, ATAL teams have provided outstanding services under challenging conditions.

A Race Against Time for Building Quarantine Facilities

ATAL also provided MVAC, electrical, ELV, fire services and plumbing installation for over 300 quarantine units, a medical post and the associated ancillary structures in Phase IV of the Penny's Bay Temporary Quarantine Facilities on Lantau Island. The units were constructed by Modular Integrated Construction (MiC) and the MEP works involved off-site prefabrication. Our Healthcare Project Team applied technologies such as BIM and its off-site prefabrication expertise to make sure that all MEP installation works for the MiC units went smoothly and "right the first time, every time".

Though our works including testing and commissioning had to be completed within a very tight time frame of 45 days, we have not wavered from our commitment to excellence, winning again the client's high regard. "Thanks to the ATAL team's full support and dedication to professional and high-quality service delivery, the project was promptly completed within a very strict deadline. This is indeed impressive," said Ir Aaron Bok, Head of Civil Engineering Office of Civil Engineering and Development Department after the successful completion of project.



Supporting Public Hospitals Facilities

Our Healthcare Engineering Team rose to the COVID-19 challenge and has been providing round-the-clock E&M upgrade, T&C and maintenance support to public hospitals and clinics under the Hospital Authority (HA) ever since the pandemic began in January. As E&M contractor for 11 hospitals and 28 clinics under HA's Kowloon Central and Kowloon East clusters, our team promptly carried out E&M works covering over 380 beds in both isolation wards and

新型冠狀病毒於今年初在全球爆發，安樂工程迅速行動，運用其機電工程的專業知識協助客戶抗疫，當中包括醫院病房的改建及優化維修保養工作、為港鐵車站的空調系統消毒，並引進創新的抗疫方案加強升降機按鈕和自動梯扶手等公共設施的衛生。面對嚴峻挑戰，安樂工程團隊依然堅守崗位，提供出色的服務。

檢疫單位工程 與時間競賽



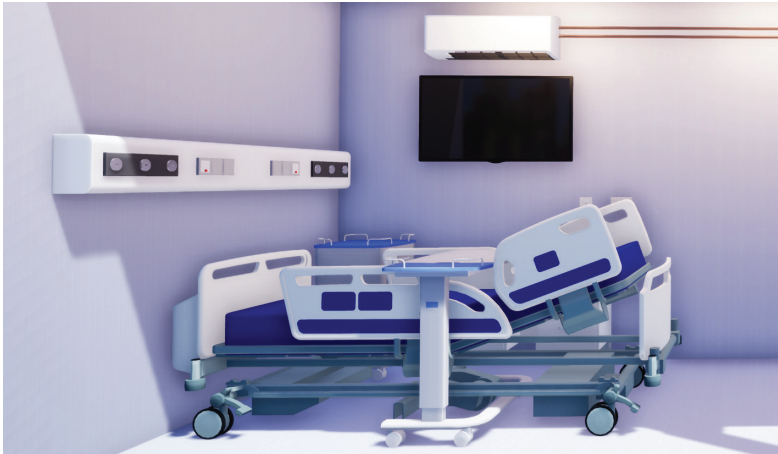
此外，安樂工程也為大嶼山竹篙灣第四期臨時檢疫中心的逾300個檢疫單位、醫療站及相關的附屬設施提供通風空調、電氣、特低電壓、消防及給排水系統組件安裝服務。這些檢疫單位採用「組裝合成」技術建造，而機電及給排水系統組件亦在工地以外的工廠預製。我們醫療工程團隊運用先進的建築信息模擬技術及場外預製組件技術，確保所有機電及給排水系統「組裝合成」順利，並且準確無誤。

即使我們負責的工程項目連檢測和調試工作在內，都必須在只有約45日的緊逼時間內完成，但我們始終都恪守優質卓越的承諾，再次贏得客戶的高度評價。土木工程拓展署土木工程處處長卜國明工程師表示：「衷心感謝安樂工程團隊的全力投入，和他們對專業與優質服務的堅持，更令項目得以在十分緊迫的限期內完成，表現相當出色。」

支援公立醫院設施

我們的醫療工程團隊勇於面對新型冠狀病毒的挑戰，自年初疫情爆發以來，團隊一直以日繼夜為醫院管理局（醫管局）轄下的公立醫院和診所的機電設施提供優化、測試和校驗及維修保養服務及支援。作為醫管局的機電工程合約承辦商，我們負責為醫管局九龍中及九龍東聯網轄下11家公立醫院及28家診所提供服務。當香港錄得首宗新冠病毒確診個案後，團隊旋即為五家公立醫院提供緊急機電工程服務，涵蓋超過380張隔離病牀及二線隔離病牀。

即使在農曆新年期間，團隊亦必須與時間競賽，務求盡快完成在東華三院黃大仙醫院和基督教聯合醫院等



second-tier isolation wards in five public hospitals soon after the first case had been confirmed.

Working through the Chinese New Year in 2020, the team raced against time to complete works in isolation wards in HA hospitals such as the TWGHs Wong Tai Sin Hospital and United Christian Hospital, and ensured that disruption to medical staff and patients was kept to a minimum. The safety and health of our own colleagues had to be assured too.

Most notable was the team's successful completion of E&M works for isolation wards within only 80 days, compared to 150 days generally required for conventional ward upgrade, T&C and handover just in time before the second wave of the pandemic hit Hong Kong in March. Given the more sophisticated systems in an isolation ward, such as negative pressure system with HEPA filter units, the speed and quality of our healthcare engineering services were remarkable.

Worry No More about Lift Buttons and Escalator Handrails



There are good reasons to be worried about the sanitation of lift buttons and escalator handrails, as they are touched by thousands of passengers every day and can easily transmit bacteria and viruses, making them particularly high risk in a pandemic. With public health and safety in mind, Anlev has promptly come up with two solutions.

For escalator handrails, our Sterile Touch LED UV-C handrail sterilisation module is the answer. The module is designed to destroy the cell structure

醫院的隔離病房工程。施工期間，我們既須確保工程對醫護人員及病人帶來的影響減至最低，同時亦採取措施保障我們同事的安全和健康。

值得一提的，是我們的團隊只需80日，便完成了一般需要150日的機電工程，包括將普通病房改建成隔離病房，以及進行測試和校驗。即使隔離病房的系統要求比較複雜，例如須安裝負壓系統及高效能空氣微粒子過濾器，我們仍趕及在3月本港爆發第二波疫情前竣工，足證我們醫療工程服務的效率和質素可見一斑。



安心使用電梯按鈕與自動梯扶手

升降機按鈕和自動梯扶手，每天都有成千上萬的乘客觸碰，容易成為細菌病毒的溫床，尤其在疫情大流行期間，病毒傳播風險極高，令人憂慮。安力電梯一向著重公眾衛生與安全，故迅速提供兩個解決方案。

自動梯扶手方面，我們推出了紫外光消毒裝置。裝置設計甚具特色，在自動梯運行期間，能將扶手帶表面的細菌和病毒等微生物的細胞結構破壞，從而為整條扶手帶消毒。由於消毒裝置是安裝在自動梯內部，所以不會對乘客構成風險。我們的主要客戶海洋公園，對消毒裝置甚感興趣，並已在園內的設施試行安裝。科學園亦已於四部自動梯安裝此裝置，以達至最高的衛生水平。

至於升降機按鈕，我們則採用免觸式升降機紅外線按鈕系統。安裝在升降機按鈕上的傳感器能夠偵測手指



of micro-organisms such as bacteria and viruses on the handrails during escalator operation, so that the whole length of the handrail is consistently being sterilised. It is installed inside the escalator so there is no risk of passenger entrapment. Ocean Park, one of our key clients, is so impressed that a trial module has been installed at its facilities. Hong Kong Science Park also installed the modules on four escalators to achieve the highest level of hygiene.

To those concerned about lift buttons, our Touchless Lift Call registration system using infra-red technology is the perfect solution. Without physically touching the buttons, passengers can still easily register lift calls, as sensors of the lift buttons will detect their finger motions and register the lift call automatically. The innovative products have been also installed in the lift at the Ocean Park and Queen Elizabeth Hospital Ambulatory Care Centre. We hope that as more clients adopt these virus-fighting solutions, lift and escalator passengers will have less to worry about and better enjoy their ride.

Outstanding Maintenance Services Valued and Appreciated



During the pandemic when many in Hong Kong had to work from home, ATAL's maintenance teams were busier than ever before on-site. Demand for deep cleaning and sanitising services for air-conditioning units and systems has surged dramatically ever since the outbreak of COVID-19, especially demand for ad hoc maintenance services at venues with confirmed cases.

A good example is MTR stations. Once a COVID-19 case at an MTR station has been confirmed and reported, our team will conduct ad hoc cleaning and sanitising work on all the station's air-conditioning units over night, making sure that ventilation and air quality in the station are up to the required standards for passengers before the next morning when station operation resumes. As only a few short hours after mid-night are available for maintenance work, our colleagues must work fast and with great skill and precision to ensure high quality.

Their efforts have been well recognised, with appreciation letters coming in from clients and working partners commending the outstanding performance of our maintenance teams under very challenging conditions in a pandemic. These included compliments from the Hong Kong Housing Society for our air-conditioning maintenance team, and appreciation from Synergis Management Services Ltd as well as a nursing home for the aged in Hong Kong for our lifts and escalators maintenance team.

的動作，乘客無需接觸按鈕，就可隔空下達樓層指示。這別具創意的產品，亦已率先在海洋公園及伊利沙伯醫院日間醫療中心安裝。我們希望更多客戶採用這些防控病毒方案，乘客就可安心乘搭升降機和自動梯，無懼病毒感染。

時刻提供優質保養服務 備受客戶讚賞



疫情大流行期間，許多僱員須居家工作，但安樂工程的維修保養團隊卻比以前更忙碌，馬不停蹄前往客戶的辦公地點工作。自從疫情爆發以來，客戶對空調裝置和系統深層清潔消毒服務的需求急劇增加，尤其是出現確診個案的場所，對非常規的保養服務需求更大增。

以港鐵車站的服務為例。一旦港鐵車站出現確診個案，我們的團隊便會徹夜為車站所有空調裝置進行特別清潔和消毒工作，以確保車站在翌日早上恢復營運前，站內的通風和空氣質素都符合要求水平。由於維修工作只可在午夜後短短數小時內進行，因此團隊必須行事迅速、熟練和精確，並確保高質素服務。

團隊的努力，獲得不少客戶和合作夥伴的嘉許，表揚同事在疫情大流行的艱難時刻依然表現出色，包括香港房屋協會對我們空調維修保養團隊的讚賞，同時昇捷管理服務有限公司及一家護理中心，亦對我們升降機和自動梯保養維修團隊的表現作出嘉許。



Expedite the Works Progress for World-class Resort Hotel

為世界級度假酒店加緊工程進度

A highlight of our work outside of Hong Kong is Galaxy Macau, a flagship hotel and casino resort project in Cotai, Macau. ATAL was awarded two contracts for Galaxy Macau, covering HVAC and electrical installation works for its Phase 3a development. Our works commenced since 2017 and are scheduled to be completed by the 3rd quarter of 2021.

Galaxy Macau is an integrated development with hotels, casinos, retail, convention and exhibition, family entertainment and resort facilities. Phase 3a of Galaxy Macau consists of a 38-storey hotel tower with over 600 guest rooms and suites, plus retails and food & beverage area.

Despite the impact of the pandemic, our team has been working hard to expedite the works progress and bring it back on schedule, while facilitating the fine-tuning of the new hotel's systems design to the highest and most sophisticated standards.

Grand and luxurious, Galaxy Macau with its glamorous golden curtain wall and state-of-the-art décor will blend in well with the other luxury hotels in this world-class resort destination. Our team will continue to deploy our resources and give our best efforts to complete the Phase 3a project, which will help consolidate the leading position of the Galaxy Resorts Precinct in Macau.

位於澳門路氹的「澳門銀河」，是酒店與博彩娛樂兼備的旗艦度假村，也是我們在香港以外地區的重點項目之一。安樂工程獲得澳門銀河第3a期發展的兩份合約，包括暖通空調和電氣安裝工程，並於2017年動工，預計於2021年第三季度完成。

澳門銀河是個結合酒店、博彩、零售、會議展覽、家庭娛樂和度假設施的綜合發展項目，其第3a期發展包括一幢樓高38層，設有600多家客房及套房的酒店大樓，並提供餐飲和零售設施。

儘管受到疫情的影響，我們的團隊仍加緊工程進度，趕及因疫情造成的延誤，令工程如期進行。同時，我們已為新酒店的系統設計進行微調，將系統提升至最精準的頂級水平。

澳門銀河規模宏大，富麗堂皇，迷人的金色幕牆配合時尚的裝潢風格，可媲美世界級度假勝地的豪華酒店。集團將繼續調配資源，竭盡所能完成第3a期發展項目，以鞏固銀河度假村在澳門的領先地位。



Contract Won to Reprovision Sha Tin Water Treatment Works

奪得沙田濾水廠原地重置工程大型合約



由安樂工程有限公司、俊和建築工程和明興土木工程組成的安樂-俊和-明興聯營贏得水務署的沙田濾水廠（南廠）進行原地重置工程合約，負責設計，並重新建造濾水廠。南廠自1964年起啟用，營運多年已見老化，需要重置。新的南廠工程將於2026年完成。

合約的主要工程包括原地重置濾水設施，並引入最新技術，包括沉澱澄清、兩階段過濾、採用臭氧去除雜質、味道和氣味、紫外線消毒和洗池水回收系統。

A joint venture formed by ATAL Engineering Limited and Chun Wo – Ming Hing has won the contract to design and build a new water treatment works at the existing Sha Tin Water Treatment Works (WTW) facility for the Water Supplies Department. The project is for the in-situ reprovisioning of the aged South Works of the Sha Tin WTW, which has been in service since 1964. The new South Works is due for completion in 2026.

Major works under the contract encompasses in-situ reprovisioning of the water treatment process units with the latest technologies, such as lamellar sedimentation, two-stage filtration, ozonation, disinfection by ultraviolet (UV) light and washwater recovery system. When completed, the new South Works will be the first water treatment plant in Hong Kong featuring UV as disinfection technology in a major process treatment line, which can disinfect 99.99% of viruses and pathogens.

ATAL is responsible for the design, build, testing and commissioning of the entire E&M works for the project. Upon completion, the new South Works will not only replace the aged facilities, but also upgrade the treatment capacity from 360,000 m³/day of the existing South Works to 550,000 m³/day to meet increasing fresh water demand from new private and public housing developments in the combined supply zone of the Sha Tin WTW and Tai Po WTW. Fresh water quality will be improved too.

Our engineering team will bring innovativeness and enhanced productivity to the works. We are delighted to take part in this flagship project and committed to delivering state-of-the-art technologies while minimising the impacts on the environment.

竣工後，新的南廠將成為本港首個使用紫外線消毒食水的濾水廠，可消除99.99%的病毒和病原體，加強濾水工序。

安樂工程負責項目的所有機電工程的設計、建造、測試和校驗。新的南廠不僅配備嶄新的設施，其濾水量更將由目前每日36萬立方米，增至每日55萬立方米，可滿足沙田濾水廠和大埔濾水廠的聯合食水供應區內新的公營和私營房屋的用水需求，屆時水質也將得到改善。

我們的工程團隊將為項目帶來更多創意和提升生產力。我們欣然參與這旗艦項目，並將致力提供最先進的技術，同時盡量減低對環境造成影響。



Airport Baggage Delivery System Project in Final Testing Stage

機場行李運輸系統項目進入最後測試階段



Voice reported in 2017 that ATAL had won a contract to upgrade the Hong Kong International Airport arrival baggage delivery system. The project is now near completion, with many systems in final testing stage.

The contract, which covers the building and E&M works for the automation of arrival bags delivery, aims to enhance the conveyance performance of passenger luggage from Midfield/ Remote Transfer Facilities to Terminal 1 baggage reclaim hall. Under the contract, ATAL is not only the E&M main contractor but also the building contractor for the construction of two new ventilation buildings.

Our team overcame two major challenges in the course of works. First was building an extensive steel platform in the Terminal 1 Baggage Hall to facilitate our enhancement works. As the building work had to be conducted at a busily operating baggage delivery system, installation work could only proceed during a few hours after mid-night, including resolving of numerous logistics issue. A further complication was that some existing E&M systems had to be modified during construction of the steel platform, making the process more complex.

Another unique challenge was integrating the ventilation/smoke system and the fire detection system in the 2.3 km long North Destination Coded Vehicle (NDCV) Tunnel with the control system of the baggage delivery system. In the event of a fire, the fire detection system in the NDCV Tunnel will promptly locate the specific section of the baggage handling system where the fire breaks out, and automatically stop the downstream baggage handling system and turn on the smoke extraction system to maintain smoke clear height. The purpose is to stop the smoke from spreading out of the incident zone and provide a means of escape for evacuation of people in the event of a fire.

With the full support from our client, our team has resolved all the difficulties and enhanced the efficiency of delivering arrival baggage to the reclaim hall, helping the Airport Authority maintain its excellent service.

我們曾在2017年《樂訊》報導，安樂工程贏得香港國際機場的工程合約，為機場的抵港行李運輸系統升級。該項目現已接近完成，並且正進入最後系統測試階段。

合約涉及建造一個抵港行李自動化運輸系統及相關的機電工程，以提升旅客行李由中場客運廊／特快行李中轉設施運送到一號客運大樓的行李認領大堂的傳輸效率。安樂工程不單是機電工程的總承包商，亦擔任建築承包商，負責興建兩座全新通風大樓。

在施工過程中，我們的團隊克服了兩大挑戰。首先，我們必須在一號客運大樓的行李認領大堂搭建一個大型鐵台，以便進行改善工程。在一個繁忙的行李運輸系統中進行搭建工程已非易事，加上安裝工作只限於凌晨短短數小時內進行，更須妥善安排物流，可說困難重重。此外，在搭建鐵台過程中，現有的機電系統亦需作出改動，令施工過程增添複雜性。

團隊面對的另一挑戰，是要將目的地編碼車北隧道內的通風／抽煙系統及消防系統與行李運輸控制系統連接起來。隧道全長2.3公里，當遇上火警時，隧道內的消防系統會即時偵測到發生火警的路段，並自動停止行李處理系統的下游運輸，同時啟動抽煙系統把煙霧抽離，以免濃煙積聚，及阻止煙霧擴散到其他區域，一旦發生火警，就能為工作人員提供逃生路徑。

在客戶的全力支持下，工程團隊最終能迎刃而解，並加強了運送抵港行李到認領大堂的效率，有助機場管理局維持卓越服務。



Participate in Queen Mary Hospital Major Redevelopment 參與瑪麗醫院大規模重建計劃



Established in 1937, Queen Mary Hospital (QMH) is a major acute hospital in the Hong Kong West Cluster of the Hospital Authority and the teaching hospital of The University of Hong Kong. To meet the ever-rising needs of patients and the community, QMH will be undergoing a major redevelopment.

ATAL is delighted to have been awarded the contract for the installation of audio and video electronics, burglar alarm and security and ELV systems for Phase 1 of the QMH redevelopment project. Anlev has also been awarded the contract for the design, supply and installation of lifts and escalators for Phase 1. Completion is estimated to be in 2023.

The QMH redevelopment project Phase 1 will be conducted in two stages. Stage 1 is conversion of the senior staff quarters, while Stage 2 is construction of a new block. The new block will provide additional space to meet the hospital's increasing operational needs, be more adaptable to service developments in future, and better suited to promote integrated research and education.

In addition to ensuring that all designs and installations are safe, stable and of superior quality, our project team will be applying eco-friendly solutions to the project too. Anlev, for example, will introduce green products such as a gearless lift machine and an AC Variable Voltage Variable Frequency (ACVVVF) lift drive for all the lifts. All escalators will be equipped with service-on-demand features to save energy. We shall also supply high speed, heavy duty elevators as special bed lifts, vital in a hospital.

QMH is currently serving a population of over 530,000 in the Central, Western and Southern Districts while also treating patients from all over Hong Kong. We are honoured to be working with the prestigious hospital to take its E&M facilities and lifts and escalators to a new level of excellence.

瑪麗醫院在1937年設立，是醫院管理局港島西醫院聯網的大型急症醫院和香港大學的教學醫院。為應付日益增加的醫療服務和社區需求，瑪麗醫院將進行大規模重建計劃。

安樂工程很高興獲得瑪麗醫院第一期重建計劃的項目合約，負責安裝音頻和視頻電子系統、防盜警報、保安設備和特低電壓系統。此外，安力電梯亦將負責為第一期重建計劃設計、供應和安裝升降機及自動梯，有關工程預計於2023年竣工。

瑪麗醫院第一期重建計劃分兩個階段進行，首階段為改建高級職員宿舍，而第二階段則為興建一幢新的醫院大樓，將提供額外空間，滿足日益增加的醫療需求，以及配合未來的服務發展，並有助推動綜合教研發展。

我們的項目團隊除了確保所有設計和安裝安全、穩妥及品質卓越之外，更為項目引進環保方案。例如，安力電梯將會為所有升降機提供無齒輪曳引機和變頻驅動器等環保設備；所有自動梯更將配備「自動調速」功能，以節省能源。此外，我們亦會提供高速重型升降機，專門運送病床到不同樓層，這對醫院運作尤其重要。

瑪麗醫院目前為中西區及南區超過530,000人口服務，也為其他地區不少病人提供治療。集團很榮幸可與享負盛名的醫院合作，將其機電設施及升降機與自動梯服務提升至更優秀水平，以配合醫院的未來發展。

Central-Mid-Levels Escalator Project Wins Elevator World 2021 Award 中環半山自動扶梯項目贏得 Elevator World 2021年度獎



Our Central-Mid-Levels Escalator and Walkway System modernisation project won the first place in the “Escalators, Modernisation” category of the Elevator World’s 2021 Project of the Year contest. The prestigious award once again put us among the world’s best in the industry. Congratulations to Anlev team!

The project involves the replacement and modernisation of 18 escalators and three moving walkways in the hilly heart of the city, posing numerous engineering challenges. Using creativity, technologies, meticulous planning and community engagement while stressing safety and sustainability, we have beaten tight deadlines without disrupting the normal life of

neighbouring communities. The project is expected to be completed in August 2022 as scheduled.

我們憑藉中環半山自動扶梯系統更新工程項目獲得《ELEVATOR WORLD》2021年「年度項目」比賽的「自動梯現代化」類別冠軍。這項殊榮足證安樂工程的實力，讓我們再次躋身國際最佳自動梯企業之列，可喜可賀！

這項現代化工程項目涵蓋18部自動梯和3部自動行人道。由於項目位於中環半山，地勢狹隘陡峭，工程團隊遇上不少挑戰。在貫徹施工安全和可持續發展的原則下，我們運用創意、科技及周詳的計劃，並與鄰近社區緊密聯繫，不但在緊迫的限期內完成每一期工程，亦將其影響減至最低。整項工程預計於2022年8月如期竣工。

Elevator World, Inc.

PUBLISHER FOR THE INTERNATIONAL BUILDING TRANSPORTATION INDUSTRY

November 23, 2020

Andy Cheung
Anlev Elevator Limited
13/F Island Place Tower, 510 King's Road, North Point
Hong Kong

Dear Mr. Cheung,

Congratulations! Your project entry “Modernization of Central-Mid-Levels Escalator and Walkway System” won 1st place in the Category: Escalators, Modernization in ELEVATOR WORLD’s 2021 Project of the Year contest. We will highlight your project in the January 2021 issue of ELEVATOR WORLD, along with the 1st place winners in the remaining categories.

You will also receive a 2021 Project of the Year award plaque, which will be mailed to you in January. Included is a list of all 2021 Project of the Year award winners for your records.

Thank you for your participation in this year’s contest.

Best Regards,

Angela C. Baldwin
Managing Editor/Vice President of Editorial
ELEVATOR WORLD magazine

Outstanding Achievements Receive Accolades 集團優秀表現獲得肯定



We are delighted to have won the accolade of “Greater China’s Most Trusted Engineering Services of the Year” in the Hong Kong’s Most Outstanding Service Awards 2020, and will endeavour to continue to be the most trusted engineering partner of our clients.

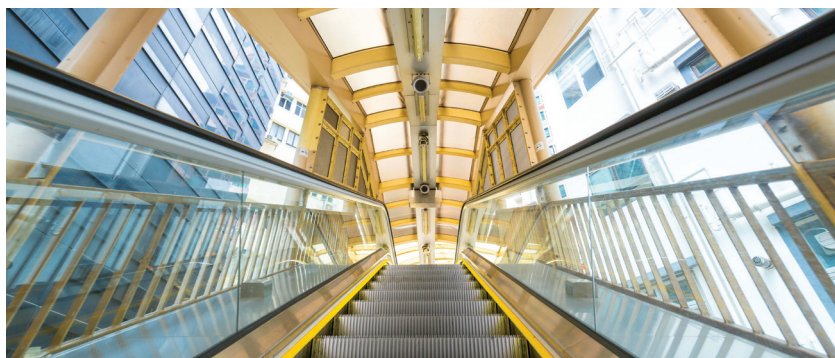
On the other hand, Analogue Holdings Limited, our holding company listed on the Hong Kong Stock Exchange since 2019, has received the prestigious “Listed Company Awards of Excellence” (Main Board category) organised by the Hong Kong Economic Journal. We are honoured to receive the award in our first year after listing and will stay committed to the pursuit of excellence.

We also received the “Outstanding Listed Companies Award 2020” granted by the Hong Kong Institute of Financial Analysts and Professional Commentators Limited (IFAPC). The award aims to recognise those listed companies in Hong Kong that have outstanding performance in enhancing corporate governance, transparency and investor rights.

我們很高興在最優秀企業大獎2020中榮獲「中華區年度最具信譽工程服務」獎項，並將繼續努力成為最值得客戶信賴的服務供應商。

集團的控股公司，即安樂工程集團有限公司，於2019年在香港聯合交易所上市後，隨即獲《信報》頒發「上市公司卓越大獎」（主板組別）。集團很榮幸在上市後首年即獲此殊榮，並將持續追求卓越。

同時，我們也榮獲「香港股票分析師協會—上市公司年度大獎」。該獎項旨在表揚於提高企業管治、透明度及投資者權益方面，都有出色表現的香港上市公司。



Technology Awards Affirm Project Excellence 項目表現傑出榮獲科技獎

ATAL is delighted to have received technology awards, which represent a significant recognition of the company's project excellence and innovative ideas. We won the Autodesk Hong Kong BIM Awards 2020 for the design, build and operation of San Wai Sewage Treatment Works – Phase 1, a project handled by ATAL-Degremont-China Harbour Joint Venture. This prize is a testament to our expertise in adopting BIM technology throughout the project cycle to achieve high-quality results for the project.

Also, our “Smart Energy Optimisation Platform” application at 28 Hennessy Road, a Grade A office building in the heart of Wan Chai, has received the ASHRAE Hong Kong Chapter Technology

Award 2020 for its innovativeness and contribution to the client's energy saving performance and sustainability.

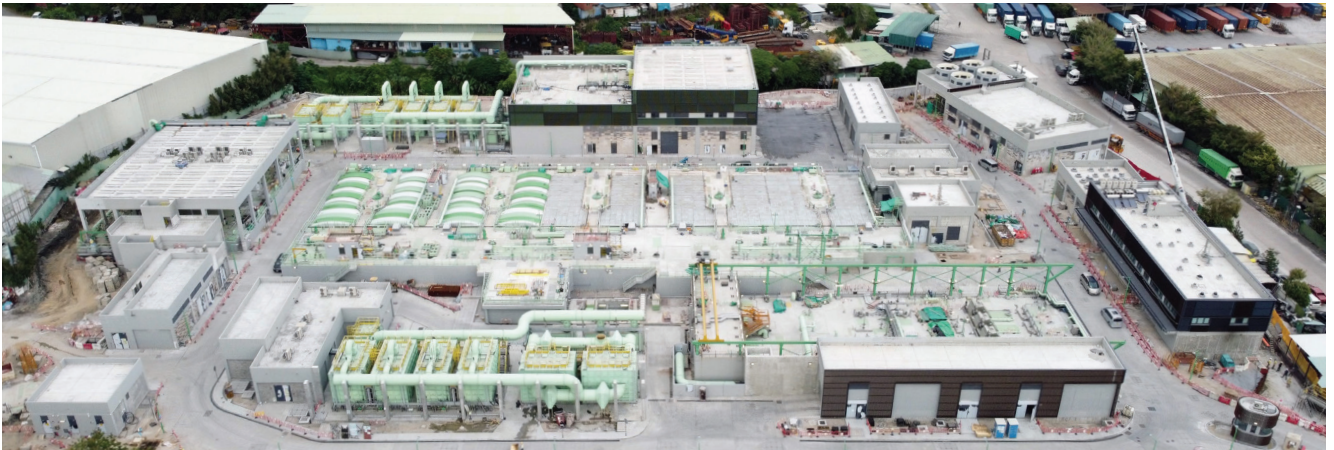
The project has also been awarded the second runner-up for the Region XIII and honourable mention in the Society Level category in the ASHRAE Technology Award 2020/21. Indeed, this inhouse-developed energy management platform has previously won the Silver Award of the Smart Business Award (Big Data and Open Data Applications) in the Hong Kong ICT Awards 2019.

安樂工程憑藉卓越的服務及創新意念，榮獲國際及本地大型獎項，備受業界肯定。安樂-得利滿-中國港灣聯營公司憑着新圍污

水處理廠第一期工程設計、建造及營運項目奪得2020年度Autodesk香港建築信息模擬（BIM）設計大獎。這項殊榮足證集團的專業技術，能透過BIM提升項目質素。

此外，我們為灣仔甲級辦公大樓軒尼詩道28號設計的「智能能源管理平台」，榮獲2020年美國冷凍空調工程師學會（ASHRAE）香港分會科技成就獎，表揚其創新設計，可提升客戶的節能表現和可持續發展。

項目還獲得該學會2020/21年第十三區科技成就獎於季軍及學會級別的榮譽獎兩個獎項。這能源管理平台由安樂工程集團研發，也曾於2019年香港資訊及通訊科技獎中，奪得商業方案組別（大數據及開放數據應用）的銀獎。



Awards for Charitable and Social Capital Building Work 獲頒慈善籌款及社會資本發展獎項

Always mindful of our corporate social responsibilities, ATAL was honoured with the “Community Chest Award of Excellence” at the 2019/2020 Annual Awards Ceremony. The award recognised the Group's fund-raising contributions via charity events. We look forward to participating in more Community Chest events to give back to society.

Meanwhile, our work in community building again received the “Social Capital Builder Awards – Social Capital Builder Logo Awards” for 2020-22 as organised by the Labour and Welfare Bureau. The

award recognises commercial entities or organisations in the public or private sector with achievements in building social capital in Hong Kong.



The Award is a welcome recognition and will further our commitment to community service.

安樂工程一向重視企業社會責任，最近榮獲香港公益金2019/2020年度「公益卓越獎」，表揚集團對公益金籌款活動的支持。希望未來繼續參與，回饋社會。

同時，我們在勞工及福利局舉辦的2020-22年「社會資本動力獎」嘉許計劃中再獲頒發「社會資本動力標誌獎」，對我們在社區發展方面的貢獻給予肯定，更為同事的付出帶來莫大鼓勵。

Striving for Sustainable Growth 致力推動業務持續增長



Analogue Holdings Limited held its first Annual General Meeting in June.

The Group also announced its interim results for the first half of 2020 in August. During the six-month period, total revenue increased by 17.4% to HK\$2.44 billion, while profit attributable to owners of the Company reached HK\$107 million. The period also saw satisfactory order intake valued at HK\$2.6 billion.

According to Group Chairman Dr. Otto Poon, the Group remains confident in its capability to harness opportunities amid the COVID-19 adversity, as business prospects of both the public and private sectors are still optimistic. Organic growth aside, merger and acquisition of

businesses with strengths complementary to the Group's own will be an effective way to widen its scope and geographical footprint.

安樂工程集團有限公司於6月舉行首次股東周年大會。

此外，集團於8月公佈今年中期業績，上半年總收益增長17.4%至24.4億港元，而公司擁有人應佔溢利達1.07億港元。期內新接訂單收益理想，總值26億港元。

集團主席潘樂陶博士表示，縱使新冠肺炎疫情肆虐，但公營和私營業務的發展前景仍然樂觀，因此集團對在逆境中把握市場機遇充滿信心。除了內部增長外，透過合併和收購與集團優勢互補的企業，可擴大業務範疇及拓展市場領域。

Technology Showcase at IE Expo China 中國環博會 展示創新環保技術

ATAL participated in the Hong Kong Pavilion of the 21st IE Expo China held in Shanghai.

We showcased a wide range of environmental engineering solutions and patented technologies for the treatment of water, sewage, solid waste and gas. Our expertise and rich experience in the field attracted many visitors and fellow exhibitors, with productive discussions and business leads.

安樂工程參與了在上海舉行的第21屆中國環博會。於會上，我們展示了多種環境工程方案及專利技術，以及用於處理自來水、污



水、固體廢物和氣體的方案。我們在環境工程方面擁有專業知識和豐富經驗，吸引了許多與會者和其他參展商前來參觀洽談，積極拓展合作商機。

Sharing Experiences at Industry Webinars 網上論壇分享經驗

ATAL took part in various online forums, including the Electrical (Power) Engineering Forum 2020 in which Dave Chan, Chief Executive of Information, Communications and Building Technologies shared how to use big data to enhance building energy efficiency. In addition, Pan Lee, Assistant Technical Manager of Intelligent & Green Building Solutions spoke at the Building Services Operation and Maintenance Executives Society's (BSOMES) 10th Guangdong-Hong Kong-Macao Greater Bay Area Conference on ATAL's sustainable AI-driven Smart Energy Analytics Platform.

Meanwhile, Ronny Lo, Associate Director of Data Centre Infrastructure spoke at a webinar organised by the Royal Institute of Chartered Surveyors (RICS) on the future prospects of Hong Kong's data centre market, sharing information on technical requirements of data centre infrastructure and the opportunities and risks in transforming industrial premises into data centres.



安樂工程早前獲邀出席多個網上論壇，包括2020年電力工程網上論壇。會上，首席資訊、通訊及屋宇科技總監陳志雄就如何利用大數據來提升建築物能源效益發表演說。此外，於屋宇設備運行及維修行政人員學會舉辦的第十屆粵港澳大灣區網上研討會上，我們的智能及綠色屋宇系統助理技術經理李彬亦介紹了由集團開發的人工智能能源分析平台。

另一方面，數據中心基建副總監盧書聰則應邀出席皇家特許測量師學會舉辦的網上研討會，分析香港數據中心市場的未來前景，並分享數據中心基建的技術要求，及將工廠轉型為數據中心的機遇和風險。

“Life First” Campaign Boosts Construction Site Safety 「生命第一」推廣活動加強工地安全

In view of a number of serious construction accidents from May to July in which at least ten workers tragically lost their lives, the Construction Industry Council (CIC) organised the “Life First” five-day campaign in August to alert all industry stakeholders to take immediate actions to step up safety.

Always putting safety first, ATAL joined the initiative and rolled out its “ATAL Life First” campaign modelled on the CIC “Life First” framework. The campaign began from 7 August onwards when four senior executives of the Group, together with senior management from our clients, such as the Electrical and Mechanical Services Department, Water Supplies Department, Airport Authority, MTR Corporation and iAdvantage, kicked off a series of five-day campaigns at their respective project sites. The senior executives spent Day One of the campaign to review site operation safety with frontline staff. This was

followed by a site walk and delivery of key safety messages to all site staff.

The next four days of the campaign consisted of identifying and reviewing high risk activities such as work-above-ground, lifting operation and electrical work together with all levels including frontline supervisors, sub-contractors’ in-charge persons, and workers. All of them had actively participated in the campaign and provided suggestions to jointly resolve safety issues and improve site conditions and management.

Moving forward, ATAL will organise more safety campaigns to further elevate our safety standard at sites and mitigate potential risks.

今年5月至7月期間，建造業發生多宗嚴重工業意外，至少十名工友不幸身故。建造業議會隨即於8月舉辦了「生命第一」全方位建築

安全推廣活動，提醒業界所有持份者馬上採取措施，提升工地安全。

安樂工程一直以安全為先。早前響應建造業議會呼籲，參考其「生命第一」活動的綱要，推出「安樂生命第一」活動。活動於8月7日展開，集團四位高層管理人員，聯同多位客戶代表，包括機電工程署、水務處、機場管理局、港鐵公司及互聯優勢有限公司的管理層，分別在相應工程的工地舉辦一連五日的安全推廣活動。在活動首日，各位管理人員與前線同事一起檢視工地安全情況，並巡視工地，向全體人員宣傳安全訊息。

隨後四日，各級工地員工，包括前線管工、分判商負責人和工友均一起識別及審視各類高危工作的安全隱患，例如高空工作、大型吊運和帶電工作等。工友們亦積極參與，並就解決工地安全問題、改善工地環境和管理方面，提供多項建議。

今後，我們將舉辦更多推廣工地安全的活動，進一步提升安全標準和提防意外發生。



“Happy at Home” Online Classes with Celebrities 「樂·在家」星級名人網上興趣班



COVID-19 has greatly reduced social life and recreational activities. ATAL has launched a series of online classes including yoga, photography and cooking, so that staff could have fun at the comfort of their homes.

Celebrity and professionals were invited to conduct the live sessions, including yoga master cum actress Elva Ni and

winner of the National Geographic Photo Competition Kira Lee. An experienced coach and a Towngas tutor were also invited to host online fitness training and cooking classes. The sessions were well received, enriching life under COVID-19 for our colleagues and their families.

在新冠肺炎疫情影響下，同事們都減少了社交及休閒活動。有見及此，集團特別推出了

一系列網上興趣班，包括瑜伽、攝影和烹飪班等，讓員工可足不出戶，在安全舒適的環境下參與有關活動。

興趣班邀請了星級名人及專業導師主持，包括瑜伽女神兼藝人倪晨曦和《國家地理》雜誌攝影大賽得獎者千紅（李維樂）。資深健身教練及煤氣公司烹飪導師分別負責主持健體訓練及烹飪班。這些網上興趣班大受歡迎，為同事及其家人在疫情中增添了生活趣味。

“Happy Together” Photo Contest 「樂·在一起」攝影比賽

Despite the challenges of the pandemic, it is heartening to see that families and friends are spending more time together. ATAL has organised a “Happy Together” photo contest to encourage staff to capture their happy moments with families and friends.

Led by Group Chairman Dr. Otto Poon,

the judging panel comprised Managing Director Raymond Chan, Chief Financial Officer Peter Cheng and winner of the National Geographic Photo Competition Kira Lee. The prize presentation ceremony was held in September.

儘管疫情大流行，反而令我們有更多時間陪伴家人與親友。集團早前舉辦「樂·在一

起」攝影比賽，鼓勵員工以相機捕捉與親友相聚的歡樂時光。

比賽評審團由集團主席潘樂陶博士、董事總經理陳海明、首席財務總監鄭偉強及《國家地理》雜誌攝影大賽得獎者千紅（李維樂）組成。頒獎禮已於9月圓滿舉行。



Champion 冠軍



First Runner-up 亞軍



First Runner-up 亞軍



Second Runner-up 季軍

Analogue Holdings Limited
(Incorporated in Bermuda with limited liability)
安樂工程集團有限公司
(於百慕達註冊成立之有限公司)

Analogue Technical Agencies Limited
安樂工程貿易有限公司

Anlev Elex Elevator Limited
安力電梯有限公司

Anlev (HK) Limited
安諾電梯有限公司

ATAL Building Services Engineering Limited
安樂機電設備工程有限公司

ATAL Data Centre Infrastructure Limited
安樂數據中心基建有限公司

ATAL Engineering Limited
安樂工程有限公司

ATAL Technologies Limited
安樂科技工程有限公司

Analogue Building Service (Macao) Limited
安諾屋宇服務(澳門)有限公司

ATAL Building Services (Macao) Limited
安樂屋宇服務(澳門)有限公司

ATAL Engineering (Macao) Limited
安樂工程(澳門)有限公司

Analogue Technical Agencies (Shanghai) Limited
安樂建築工程服務(上海)有限公司

ATAL Engineering (Shanghai) Limited
安樂設備安裝工程(上海)有限公司

Nanjing Anlev Elevator Limited
南京安諾電梯有限公司

Nanjing Canatal Data-Centre Environmental Tech Company Limited
南京佳力圖機房環境技術股份有限公司

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