

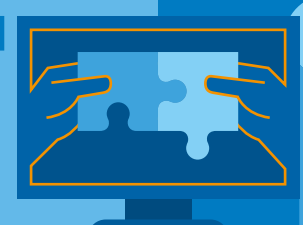
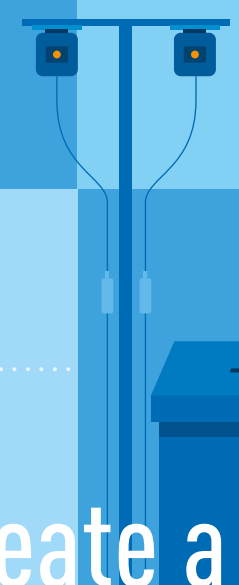


# VOICE LINK

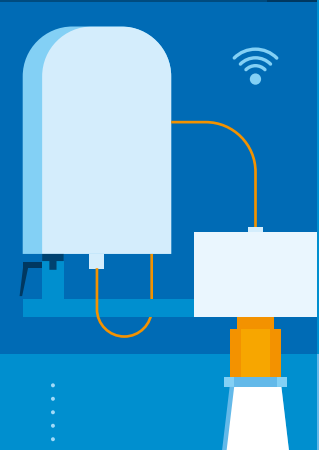
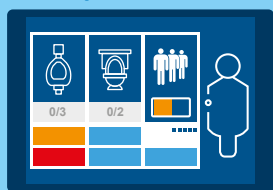
機電  
傳聲



GWIN



Co-create a  
Smart City



# 地下渠道無線通訊系統 應對挑戰 提升效能

## Embraces Challenges and Elevates Performance with the Wireless Communication System for Underground Drains

地下公共設施遍布全港，每日全天候支援廣大市民的日常生活需要。地下渠道系統錯綜複雜，維修與保養一直極具挑戰。有見及此，機電工程署（機電署）與香港中文大學（中大）電子工程系合作研發應用於沙井公共設施的嶄新無線通訊方案，並與渠務署及水務署緊密合作，以創新科技突破現有限制，應對挑戰，提升設施監測與保養工作效率。該方案更於去年年底成功取得專利。

一般而言，要在地下裝置建立無線通訊系統並非易事，信號電波需要穿透厚重的沙井蓋，將數據傳送至附近的基站，再通過無線網絡發放至操作人員手中的裝置，以進行分析。系統信號被沙井蓋阻擋會減弱，這點成為應用無線裝置管理地下設施的一項重大障礙。另一項主要挑戰是傳統的無線裝置耗電量大，經常需要人手換電，令管理成本相應增加。

機電署統籌的地下渠道無線通訊方案，由改善通訊網絡入手，採用中大研發的一種四臂螺旋天線（普遍應用於衛星通訊），結合政府物聯通的優勢，解決沙井蓋令信號減弱問題，提升地下設施無線電通訊的效能，無線裝置的功耗同時亦得以減少，無需頻繁更換電池。新裝置在實驗室環境經過多次調節，並進行實地測試，天線效能更強，信號接收與發射的成功率亦相應提高。

這項創新方案旨在用於不同的地下公共設施，可應用於雨水排水道的水浸黑點及食水管道系統等。新研發的裝置可協助收集數據，接近實時監測設施狀況，監察設施是否如常運作及管道有否滲漏情况等，達至長期接近實時的監測，有助維護智慧城市的地下設施。

四臂螺旋天線  
Quadrifilar Helix Antenna

工程人員在雨水排水道的水浸黑點安裝天線，以進行接近實時的監測。

Engineering personnels installed antennas at flooding blackspots in stormwater drainage systems for near real-time monitoring.



機電署和中大聯手研發創新方案，採用普遍應用於衛星通訊的四臂螺旋天線，並配合政府物聯網，有助加強監測地下公共設施，研發成果更取得專利。

The EMSD and the CUHK have jointly developed an innovative solution which seeks a synergy of a QHA for satellite communication and GWIN to enhance the monitoring of underground utilities. The research and development results have been patented.

Extensive underground utilities are located all over Hong Kong, supporting the everyday life of the general public round-the-clock. The complexity of underground drainage system has, however, posed numerous challenges on maintenance and repair. In view of this, the Electrical and Mechanical Services Department (EMSD) and the Department of Electronic Engineering of the Chinese University of Hong Kong (CUHK) have jointly developed a new wireless communication solution for underground utilities in the manholes. The EMSD and the CUHK have been working closely with the Drainage Services Department and Water Supplies Department to overcome limitations and to embrace challenges with innovative technologies in order to enhance the monitoring and maintenance of the utilities. We also successfully patented the solution by the end of last year.

Generally speaking, it is not an easy task to establish a wireless communication system for devices deployed in an underground environment, as Radio Frequency (RF) signals have to penetrate heavy and thick manhole covers to transmit data to nearby base stations. The data would then be sent to operators' devices through wireless network for analysis. One of the major challenges for applying wireless devices to manage underground utilities is that RF signals would be weakened when blocked by manhole covers. Another major challenge is the large power consumption of traditional wireless devices, which results in frequent manual replacement of batteries, and hence increased management cost.

Co-ordinated by the EMSD, this innovative solution works on improving the communication channel by seeking a synergy of complementing the Quadrifilar Helix Antenna (QHA) (antenna generally used for satellite communications) developed by the CUHK with the advantages of the Government-Wide Internet of Things Network (GWIN) to solve the problem of signal blockage of manhole covers. It helps increase the effectiveness of radio communication in underground environment, and reduce the power consumption of wireless devices and the frequency of batteries replacement. With numerous laboratory adjustments and on-site tests, the new device has achieved stronger antenna effectiveness and relatively higher signal reception and transmission success rate.

The innovative solution is designed to benefit various underground utilities and it can be implemented at flooding blackspots of stormwater drainage systems and freshwater piping systems. The newly developed device is capable of assisting data collection and providing near real-time monitoring of condition of utilities, ensuring their normal operation and checking leaks in the pipes, etc. With such functions, a long-term near real-time monitoring is achieved, protecting the underground utilities of the smart city.

水位監測傳感器  
Water Level Monitoring Sensor



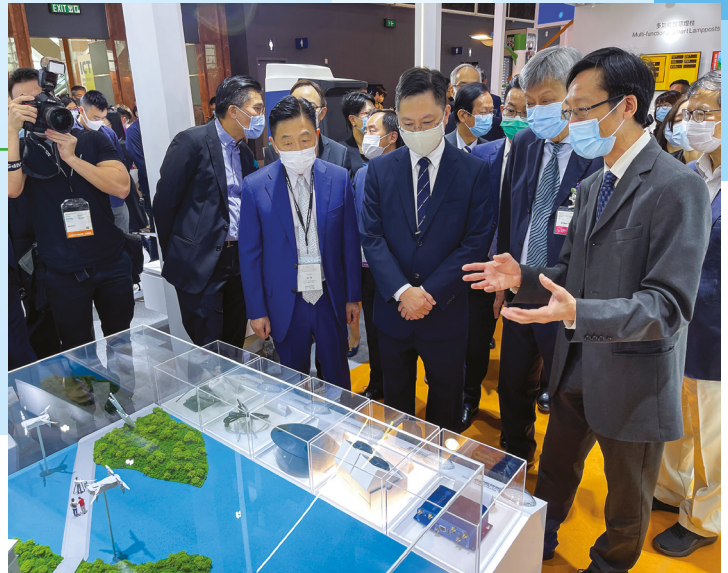
# 智慧廁所系統 強化管理 提升服務質素

## Smart Toilet System Enhances Management and Service Quality

機電署總工程師/數碼科技李子傑先生(右一)向創新及科技局局長薛永恒先生(右三)介紹政府物聯網的各項應用,包括智慧廁所系統。Mr. Lee Che-kit, Chief Engineer/ Digitalisation and Technology of the EMSD (1st right) introduced various applications of the GWIN, including the smart toilet system, to Mr. Alfred Sit, the Secretary for Innovation and Technology (3rd right).

機電署於香港會議展覽中心舉辦的國際資訊科技博覽2021中展示有關政府物聯網的資訊。

The EMSD displayed information on the GWIN at the International ICT Expo 2021 held at the Hong Kong Convention and Exhibition Centre.



為響應《香港智慧城市藍圖2.0》，機電署積極推動創新科技應用，並與多個政府部門合作支援智慧城市措施，包括與食物環境衛生署(食環署)及康樂及文化事務署(康文署)合作推行智慧廁所試驗計劃(試驗計劃)。智慧廁所系統(系統)利用物聯網技術，在公廁部署各類傳感器，用以收集由政府物聯網傳輸的數據。系統亦會詳盡分析有關數據，協助客戶部門提升廁所的管理效率及服務質素。

系統的應用範圍廣泛，可收集不同類型數據，包括公廁的使用量(例如人流、廁格/尿廁佔用情況)、環境參數(例如溫度、濕度、臭味)、設備(例如乾手機、吹風機、廁所水箱)的運作狀態、消耗品(例如消毒液、視液、廁紙)的使用情況。此外，部分廁所亦設有免觸式裝置或二維碼，用以收集廁所使用者的意見，讓客戶部門根據意見作出所需調整。

試驗計劃主要涵蓋兩類地方，包括本港使用率較高的公廁，一般位於旅遊景點或熱門郊遊路線附近，以及位處偏遠地區而有政府物聯網覆蓋的廁所。試驗計劃的工程已於2021年年底陸續展開，並於部分廁所率先安裝系統，包括荃灣的德華公園公廁及川龍村公廁。整個試驗計劃將涵蓋食環署及康文署轄下17個廁所，而當系統全面啟用後，將有助加強廁所的管理效率及服務質素，以及提升本港作為智慧城市的形象。

此外，機電署一直透過機電創科網上平台收集與系統應用有關的創新意念，以進一步優化系統。

In response to the Smart City Blueprint for Hong Kong 2.0, the EMSD has been actively promoting the application of innovative technology and co-operating with various government departments to support smart city initiatives, including the smart toilet pilot programme (pilot programme) in collaboration with the Food and Environmental Hygiene Department (FEHD) and the Leisure and Cultural Services Department (LCSD). The smart toilet system (system) utilises Internet of Things technology to deploy various sensors in public toilets to collect data transmitted by the GWIN. The system will also analyse the data in detail, assisting client departments in improving management efficiency and service quality of the toilets.

The system has a wide range of applications and is able to collect different types of data, including usage of public toilets (e.g. user flow, occupancy status of toilet cubicles/urinals), environmental parameters (e.g. temperature, humidity, odour), operation status of equipment (e.g. hand dryers, floor fans, flushing cisterns), usage of consumables (e.g. sanitisers, liquid soap, toilet paper). Besides, some toilets are also equipped with touchless devices or QR codes to collect feedback from toilet users, enabling client departments to make necessary adjustments based on the feedback.

The pilot programme mainly covers two types of venues, including public toilets with high utilisation rate in Hong Kong (usually located near tourist spots or popular country trails), and toilets in remote areas covered by the GWIN. The construction work of the pilot programme has commenced gradually at the end of 2021, and the system has been installed first in some toilets, including Tak Wah Park Public Toilet and Chuen Lung Village Public Toilet in Tsuen Wan. The entire pilot programme will cover 17 toilets under the FEHD and the LCSD. When the system is in full operation, it will help enhance the management efficiency and service quality of the toilets, as well as the image of Hong Kong as a smart city.

In addition, the EMSD has been collecting innovative ideas on the application of the system through the E&M InnoPortal for further system optimisation.

# 善用創新科技全力支援立法會換屆選舉

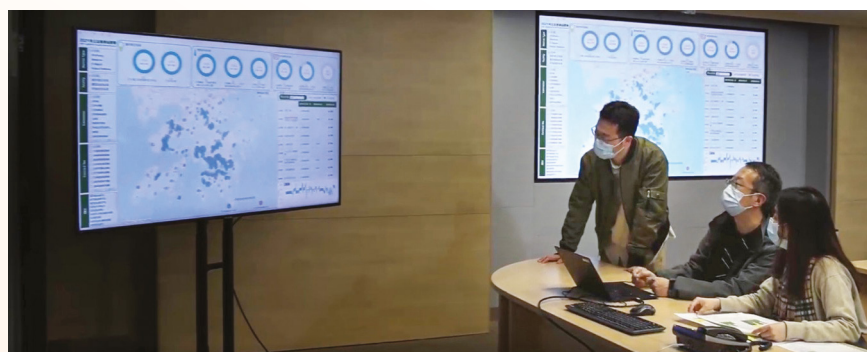
## Leveraging Innovative Technology to Fully Support the Legislative Council General Election

去年12月19日為2021年立法會換屆選舉投票日，機電署受選舉事務處委託，利用創新科技制訂了一系列嶄新的配套措施，以支援選舉順利進行。在投票日，機電署派出約1 600名員工擔任投票站不同崗位的工作人員，以及動員超過1 500名同事及承辦商員工為選舉提供技術支援。

機電署負責多項須在短時間內完成的選舉籌備職務，包括安裝及測試投票站和點票站的照明、機電和電子設備及紅外線發燒偵測系統，以及協調各部別為超過1 000名支援選舉的工作人員，包括機電署及承辦商員工，籌辦多場宣誓活動。為了方便管理及應對緊急事件，機電署團隊研發了一個利用物聯網和流動技術的數碼管理系統，可實時監察香港每個投票站的安裝工作進度。團隊亦於12月18至20日設立緊急應變中心，透過數碼平台監察工作進度和實時作出合適的人手安排，以便提供即時支援服務。此外，由於是次選舉首次使用電子選民登記冊系統派發選票，機電署特別加強政府數據中心的監察，確保政府雲端網絡穩定運作。

在有限時間內妥善籌備大規模活動並非易事，當中涉及不少挑戰，而參與同事需具備豐富的項目管理經驗及團隊默契。例如要於短時間內為全港693個投票站和超過600個點票站進行安裝及測試工作，便需要多個團隊的配合和支援。在時間和資源有限的情况下，善用創新科技能提升效率和效能。

憑藉機電署團隊的應變經驗和能力、事前準備及周密協調，加上妥善應用創新科技，令2021年立法會換屆選舉的支援工作順利完成，成果有目共睹。



機電署團隊於緊急應變中心監察各投票站的安裝工作進度，方便統籌及協調人手，提供緊急支援。

The EMSD team is monitoring the installation work progress of the polling stations at the Emergency Response Centre to facilitate the co-ordination of manpower and provide emergency support.

With a view to supporting the 2021 Legislative Council General Election (2021 LCGE) Polling Day on 19 December last year, the EMSD was commissioned by the Registration and Electoral Office to formulate a series of new complementary measures using innovation and technology (I&T) for the smooth running of the election. On the polling day, the EMSD deployed approximately 1 600 staff to work in different positions at the polling stations and mobilised more than 1 500 colleagues and contractor staff to provide technical support to the election.

The EMSD was responsible for a number of election preparatory duties that had to be completed within a short period of time, including installing and testing the lighting, electrical and mechanical (E&M) and electronic equipment and infrared fever screening systems at the polling and counting stations, and co-ordinating with various divisions to organise multiple oath-taking ceremonies for over 1 000 election supporting workers, including EMSD and contractor staff. To facilitate management and emergency response, the EMSD team developed a digital management system utilising Internet of Things and mobile technologies to monitor the installation progress of each polling station in Hong Kong in real time. The team also set up an Emergency Response Centre from 18 to 20 December to monitor the work progress and make appropriate staffing arrangements in real time through digital platforms in order to provide immediate support services. In addition, as the Electronic Poll Register system was used for the first time to distribute ballot papers, the EMSD especially strengthened the monitoring of government data centres to ensure the stable operation of government cloud networks.

It was no easy task to prepare properly for a large-scale event within a limited time. It involved many challenges, and the participating colleagues must have extensive project management experience and teamwork. For instance, the installation and testing of 693 polling stations and over 600 counting stations in Hong Kong within a short period of time required the co-operation and support of multiple teams. With limited time and resources, leveraging on the use of I&T could enhance efficiency and effectiveness.

Thanks to the EMSD team's response experience and capabilities, prior preparation and thorough co-ordination, as well as the proper application of I&T, the support work for the 2021 LCGE was completed smoothly and the achievements made are evident to all.



工作人員在投票站進行安裝及測試工作，確保選舉順利進行。

Staff is carrying out installation and testing work at a polling station to ensure the smooth running of the election.

# 機電創科網上平台 創科願望一同實踐

## Make an I&T Wish at the E&M InnoPortal

機電署一直致力擔任政府「創新促成者」的角色，推動香港的創科發展。在2018年3月，機電署推出機電創科網上平台(網上平台)，以「互通」、「共享」、「同創」為核心理念，供初創企業、大學及科研機構的創科方案與政府部門及公營機構的機電服務需求進行配對，共同促進研發成果的應用，實現客戶部門的創科願望。

The EMSD has been committed to acting as the Innovation Facilitator for the Government to promote the development of I&T in Hong Kong. The EMSD launched the E&M InnoPortal (InnoPortal) in March 2018. With the core concepts of "Connect", "Share" and "Co-Create", it matches the E&M service needs of government departments and public organisations with the I&T solutions of start-ups, universities and research institutes, so as to jointly promote the application of research and development achievements as well as realising the I&T wishes of our client departments.



### 機電創科成果(截至2022年2月) E&M-related I&T Achievements (As at February 2022):



以合作備忘錄方式，與多個本地及粵港澳大灣區的創科方案主要提供者建立策略伙伴關係。  
Establishes strategic partnership with a number of major I&T solution providers in Hong Kong and the Guangdong-Hong Kong-Macao Greater Bay Area through memoranda of co-operation.

部分成功配對的試驗項目 Some of the successfully matched trial projects are as below:

	<p><b>邊境口岸智能發燒偵測系統</b> Smart Fever Screening System at Boundary Control Points</p> <p>提升邊境口岸健康檢查的效率及減低人員受感染的風險 Enhances the efficiency of health screening at boundary control points and reduces the risk of infection among staff</p>		<p><b>自主化無人機系統</b> Autonomous Unmanned Aerial Vehicle System</p> <p>便利檢查機電設備 Facilitates inspections of E&amp;M installations</p>
	<p><b>智能洗手間</b> Smart Toilets</p> <p>提升公共服務質素 Enhances the quality of public services</p>		<p><b>風機盤管裝置</b> Fan Coil Unit</p> <p>更具能源效益及易於維修 More energy-efficient and maintenance-friendly</p>

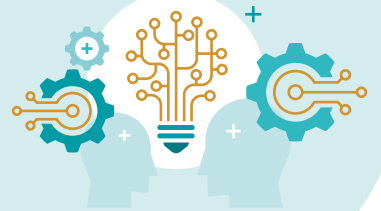
歡迎客戶部門掃描二維碼或登入網址，提出你的創科願望！  
<https://inno.emsd.gov.hk/it-wish-list/it-wish-list-form/index.php>



Client departments are welcome to scan the QR code or visit the website to make an I&T wish!  
<https://inno.emsd.gov.hk/en/it-wish-list/it-wish-list-form/index.php>

# 機電創科日促進智慧方案合作發展

## E&M I&T Day Promotes Collaborative Development of Intelligent Solutions



一眾嘉賓出席活動並獲頒發紀念品，機電工程署署長彭耀雄先生（左七）感謝協辦機構及各個支持機構的協作及努力。

Guests attending the event received souvenirs. Mr. Pang Yiu-hung, the Director of Electrical and Mechanical Services (7th left) thanked the co-organisers and supporting organisations for their collaboration and efforts.

一年一度的「機電創科日2021」已於2021年12月7日至8日在香港科學園圓滿舉行。活動有超過250名來自不同政府部門、創科行業、機電行業、大專院校、公營機構等的人士參與，其直播亦吸引約1 000人次觀看。活動以實體及虛擬形式同步進行。透過展覽攤位及講座，參加者分享智慧城市及智慧建築領域的創新方案。活動除了邀請本地大學和大灣區科研機構進行分享外，機電署亦聯同食物環境衛生署、運輸署及民眾安全服務隊的代表分享多個智慧城市項目，包括智慧廁所試驗計劃、自動泊車系統、行山安全試驗計劃等的成果及最新發展。機電署作為政府機電工程服務的提供者及「創新促成者」，會繼續與不同伙伴合作，全力支援客戶部門落實智慧城市措施。

The annual E&M I&T Day 2021 was successfully held at the Hong Kong Science Park from 7 to 8 December 2021. Over 250 participants from different government departments, the I&T industry, the E&M industry, tertiary institutions, public organisations, etc. attended the event. Its live broadcast also attracted about 1 000 viewers. The event was held in both physical and virtual formats. Through exhibition booths and seminars, participants shared innovative solutions in the field of smart city and smart building. Apart from inviting local universities and research and development institutions in the Greater Bay Area for sharing, the EMSD also collaborated with the representatives of the Food and Environmental Hygiene Department, the Transport Department and the Civil Aid Service to share the achievements and latest development of a number of smart city projects, including the smart toilet pilot programme, the automated parking system, the trial scheme of hiker safety initiative, etc. As the service provider and Innovation Facilitator of E&M engineering services for the Government, the EMSD will continue to work with various partners to fully support our client departments in implementing the smart city initiatives.

# 機電工程署研討會2022 促進碳中和發展

## EMSD Symposium 2022 for Fostering the Development of Carbon Neutrality

由機電署主辦的機電工程署研討會2022已於1月20日圓滿舉行。是次研討會以「共創無限 實現碳中和」為主題，吸引超過1 400位來自本地、內地及海外政府部門、公營機構、創科界、機電業界及學界的參加者以視像形式參與，反應熱烈。參加者共同為實現碳中和集思廣益，並透過線上展覽區分享有關智慧城市、人工智能及低碳能源的創新方案和研發成果。發展局局長黃偉綸先生及機電工程署署長彭耀雄先生致開幕及歡迎辭時表示，政府一直積極推動香港成為更綠色及智慧的城市，而機電署作為政府的「創新促成者」，會繼續與業界攜手合作，致力爭取在2050年前實現碳中和。

The EMSD Symposium 2022 organised by the EMSD concluded successfully on 20 January. With the theme "CO-innovinity" to promote carbon neutrality and collaboration in innovation, the symposium was held via video conferencing and attracted over 1 400 participants from various sectors, including local, Mainland and overseas government departments as well as public organisations, the I&T sector, the E&M trades and academics. The response was enthusiastic, where the participants pooled collective wisdom on carbon neutrality and shared innovative solutions and research and development outcomes in the fields of smart city, artificial intelligence and low-carbon energy through online exhibition zones. Mr. Michael Wong, the Secretary for Development, and Mr. Pang Yiu-hung, the Director of Electrical and Mechanical Services, said in their opening address and welcoming speech that the Government has been actively shaping a smarter and greener Hong Kong, and the EMSD, as the Government's Innovation Facilitator, will continue to collaborate with the trades to strive to achieve carbon neutrality before 2050.

發展局局長黃偉綸先生以視像形式致開幕辭時表示，政府一直積極推動善用創科促進可持續發展。

Mr. Michael Wong, the Secretary for Development, said in his opening address delivered via video conferencing that the Government has been actively promoting the application of I&T to foster sustainable development.



# 順利為警隊完成 大型項目 Successful Completion of Large-scale Projects for the Police Force

隨着時代進步，香港警務處（警務處）不斷提升科技應用。機電署積極與警務處合作，設計和統籌不同項目，協助有關警隊單位提升指揮能力和運作效能。



警務處西九龍總區指揮官陶輝先生（右四）主持啟用典禮，機電署總工程師/保安及車輛工程簡偉光先生（右一）獲邀出席典禮。

Mr. Rupert Dover, Regional Commander of Kowloon West of the HKPF (4th right) officiated at the opening ceremony, and Mr. Kan Wai-kwong, Raymond, Chief Engineer/ Security & Vehicle of the EMSD (1st right) was invited to attend the ceremony.

## ● 西九龍總區最高指揮中心啟用

機電署協助西九龍總區最高指揮中心（指揮中心）進行為期15個月的系統提升工程，包括重組指揮中心及其指揮室的布局、提升數碼網絡基礎、擴展多個視像幕牆、整合多媒體管理能力，以及為該總區的防衛系統提供一站式控制平台方案。由於有關工程規模較大和繁複，而且指揮中心須在施工期間保持全天候運作，機電署與相關單位緊密合作，確保在整個過程保持高度專業水準和實施全方位協調。最後，工程如期順利完成，而客戶部門亦感到非常滿意。完成改善工程的指揮中心於2021年11月26日舉行啟用典禮，警務處西九龍總區指揮官陶輝先生於典禮上感謝機電署團隊的努力及貢獻。

With the advancement of the times, the Hong Kong Police Force (HKPF) has continuously improved the application of technology. The EMSD actively collaborates with the HKPF in designing and co-ordinating various projects to assist the relevant police units to enhance their command capability and operational efficiency.

## ● 新款高性能電單車投入服務

警務處的高性能新型號電單車於2021年10月6日正式投入服務，由警務處處長蕭澤頤先生主持新舊電單車交接儀式。機電署早前受警務處委託，統籌新型號電單車採購工作，並作出事後跟進和提供培訓。我們配合環境保護署訂明的引擎排放標準，最終選揀高於規定的型號，採購過程甚具挑戰性。

## ● Opening of the Kowloon West Regional Higher Command

The EMSD assisted the Kowloon West Regional Higher Command (Higher Command) in its 15-month system renovation project, which includes restructuring the layout of the Higher Command and its functional rooms, upgrading digital network infrastructure, enlarging a number of video walls, integrating multimedia management capabilities and providing a one-stop control platform solution for the defense system of the regional headquarters. As it was a large-scale and complex project and the Higher Command had to maintain round-the-clock operation during the works period, the EMSD worked closely with the relevant units to ensure maintenance of high professional standards and implementation of all-round co-ordination throughout the process. Finally, the project was completed on schedule and to the complete satisfaction of the client department. At the opening ceremony of the newly renovated Higher Command held on 26 November 2021, Mr. Rupert Dover, Regional Commander of Kowloon West of the HKPF thanked the EMSD team for their efforts and contributions.

## ● New High-Performance Motorcycles Put into Service

The HKPF's new high-performance motorcycles were officially put into service on 6 October 2021. Mr. Siu Chak-ye, Raymond, the Commissioner of Police officiated the handover ceremony of new motorcycles to replace the old model. The EMSD was entrusted earlier by the HKPF to co-ordinate the procurement of new model of motorcycles, as well as to handle subsequent follow-ups and provide training. We eventually selected a model with higher engine emission standards than the requirement of the Environmental Protection Department, which was a challenging process.

新型號比舊型號更高效能、可靠和安全，而且可穩定加速和設有可調校風擋。警務處新界南總區交通部警司暨警隊護送組主管表示：「新電單車的性能超卓，其操控系統及高速行駛穩定性都有所提升，加上電腦輔助流暢煞車系統，令交通部人員執勤時更具信心及保障。」由此可見新款電單車的整體效能更佳，能更有效保障道路交通安全。

The new motorcycles are more efficient, reliable and safer than the old model, with stable acceleration and adjustable windscreens. Superintendent of Traffic New Territories South cum Officer Commanding of Force Escort Group of the HKPF said, "The new motorcycles have excellent performance. With an improved control system and high-speed riding stability, coupled with the computer-assisted braking system, the new motorcycles can enhance frontline traffic officers' safety and confidence in performing duties." This shows that the overall performance of the new motorcycles is better and can safeguard road traffic safety more effectively.



警務處處長蕭澤頤先生（左）向機電署簡偉光先生（右）致送紀念匾。

As a token of appreciation, the Commissioner of Police, Mr. Siu Chak-ye, Raymond (left) kindly presented a memento to Mr. Kan Wai-kwong, Raymond (right) of the EMSD.

# 機電署繼續與醫院管理局並肩前行

## The EMSD Continues to Strive Forward with the Hospital Authority

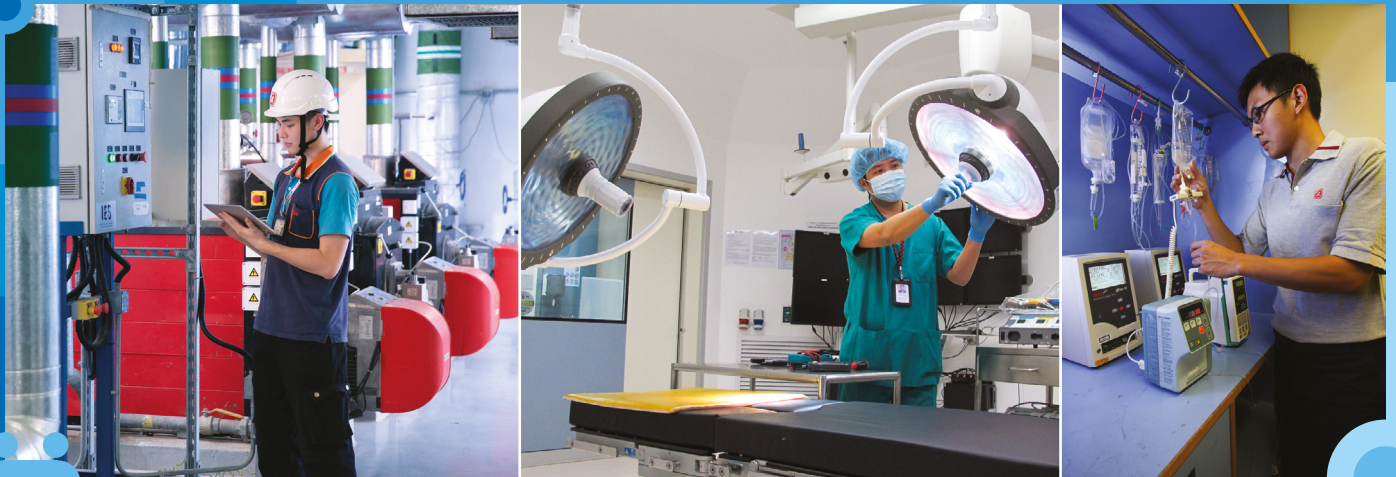


機電工程營運基金積極參與醫院管理局（醫管局）工程服務的公開招標，並於本年初接獲醫管局正式通知，成功取得三份五年期合約，即機電冷氣和屋宇裝備的操作及維修保養服務合約、電子醫療儀器的維修保養服務合約，以及手術室設備維修保養服務合約。

機電署一直是醫管局的可靠伙伴，多年來為醫管局轄下的公立醫院和普通科門診診所的機電設備提供維修保養服務。面對疫情，機電署致力維持相關設施的運作，同時積極協助客戶應對疫情衍生的服務需求。我們衷心感謝客戶的信任和支持，以及同事多年來努力不懈工作。展望未來，我們會繼續為客戶提供優質及具成本效益的服務。

The Electrical and Mechanical Services Trading Fund actively participated in the Hospital Authority (HA)'s open tender for engineering services and was formally notified by the HA early this year that we have been successfully awarded three five-year contracts, i.e. contract for operation and maintenance services for electrical, mechanical, air-conditioning and building services, contract for maintenance services for medical equipment, as well as contract for maintenance services for operating theatre equipment.

The EMSD has been a reliable partner of the HA and has been providing maintenance services for E&M equipment in public hospitals and general out-patient clinics under the HA for many years. In the face of the epidemic, the EMSD strived to maintain the operation of relevant facilities, and at the same time actively assisted our clients to cope with service needs arising from the epidemic. We sincerely thank our clients for their trust and support, as well as our colleagues for their relentless efforts over the years. Going forward, we will continue to provide quality and cost-effective services to our clients in the future.



我們已準備就緒，在未來五年繼續為醫管局提供優質的維修保養服務。

We are well prepared for continuing to provide quality maintenance services to the HA in the next five years.

您的寶貴意見對我們非常重要！如大家對《機電傳聲》有任何意見，請隨時聯絡我們，讓我們不斷改進。

如果您希望我們更新/刪除您的聯絡資料，或您的同事有興趣收取本通訊，歡迎以電郵(ccsd@emsd.gov.hk)通知我們。

Your opinion is very important to our continuous improvement in VoiceLink! If you have any comments on the newsletter, please do not hesitate to let us know anytime. In case you wish to update, remove your contact information, or your colleagues are interested in subscribing our newsletter, feel free to e-mail us at ccsd@emsd.gov.hk.

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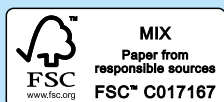
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