機電傳聲
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70th 周年紀念 ANNIVERSARY

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機電工程署
EMSD

促進機電創新科技協作

Facilitating Collaboration in E&M Innovation and Technology

為配合去年《施政報告》關於香港創新科技發展的政策方向，我們於2018/19年度推出的機電工程營運基金(營運基金)第二個五年策略計劃中，創新科技會是重點之一；我們亦會因應全球科技發展這個大趨勢，加強推動與各政府部門、初創企業及大學的協作。根據第二個策略計劃，我們會擁抱創新技術，加強與創科伙伴協作，提升對客戶的機電工程服務；同時，我們也會在部門內營造創新文化及氛圍，鼓勵員工提出智慧方案，支援智慧城市的發展。

今年6月，創新及科技局(創科局)局長楊偉雄先生和發展局局長黃偉綸先生先後來訪及巡視機電署，了解本署在應用創新科技以提升服務水平、促進智慧城市發展，以及支持本地創新企業實踐研發成果方面的工作。此外，我們與香港科技園公司亦再次合辦「創新科技日」，促進創科方面的協作和發展。

To support the policy direction on Hong Kong's innovation and technology (I&T) development outlined in last year's Policy Address, we have affirmed I&T as one of our focuses in the Electrical and Mechanical Services Trading Fund's (EMSTF) Second Five-year Strategic Plan commencing in 2018/19. In response to the global trend of I&T development, we will also strengthen our effort in promoting collaboration among government departments, start-ups and universities. As per our Second Strategic Plan, we will embrace I&T to enhance co-operation with our I&T partners in order to strengthen our E&M engineering services to clients. At the same time, we will create an innovation culture and atmosphere within the Electrical and Mechanical Services Department (EMSD), encouraging our colleagues initiate smart solutions for Hong Kong's smart city development.

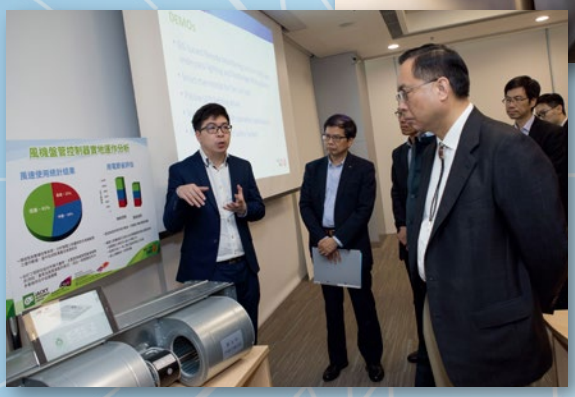
In June, Mr. Nicholas Yang, Secretary for Innovation and Technology, and Mr. Michael Wong, Secretary for Development, visited EMSD respectively. They were briefed on how we applied I&T to raise service levels, facilitate smart city development and support local start-ups in implementing their research and development (R&D) results. Furthermore, we again co-hosted our Innovative Technology Day with the Hong Kong Science and Technology Parks Corporation (HKSTP), promoting collaboration and development in I&T.

創科局局長及發展局局長先後到訪機電署

創科局局長楊偉雄先生於6月14日到訪機電署。我們向楊局長重點介紹本署推動創新及科技的工作進展。透過這些工作，我們希望促成政府部門及公營機構，與大學及初創企業在創科方面的協作、應用創新科技提升政府部門的服務，並促進本地技術商品化。

同時，我們即場展示多個示範項目，包括由機電署自行開發，用以監測交通信號燈、隧道抽水泵及照明等系統的遙距監測系統；以及四項由初創公司研發的創科產品，包括(一)本地大學團隊在「大學科技初創企業資助計劃」支持下，研發適用於中央冷氣系統的智能風機盤管控制器；(二)本地大學團隊研發的「被動式LED照明電源技術」；(三)經網上創新科技協作平台 E&M InnoPortal，成功配對技術需求和工程方案，促成與初創企業合作開發用以優化升降機運作的視像分析系統；(四)透過機電署支持而獲創新及科技基金旗下「公營機構試用計劃」資助的「4S智能駕駛安全方案」。

楊局長聆聽初創企業代表介紹「被動式LED照明電源技術」。該技術現正於沙田亞公角籃球場內試用。
A start-up representative explaining the "Passive light-emitting diode lighting technology" to Mr. Yang. The project is in trial implementation at A Kung Kok Basketball Court in Shatin.



楊局長聆聽初創企業代表介紹「智能風機盤管控制器」。署方去年底開始在機電署總部大樓裝設多個「智能風機盤管控制器」，並正收集其能效表現數據。
A start-up representative explains to Mr. Yang the Fan Coil Unit Energy Saver, several units of which have been installed in the EMSD Headquarters Building at the end of last year to collect energy efficiency performance data.

楊局長(前排左四)、署理署長戴德謙先生(前排左五)、觀塘區議會主席陳振彬博士(前排左三)、初創企業代表與部門管理層合照。
Mr. Nicholas Yang (4th left, front row), Secretary for Innovation and Technology, Mr. Tai Tak-him (5th left, front row), Acting Director of Electrical and Mechanical Services, Dr. Bunny Chan (3rd left, front row), Chairman of the Kwun Tong District Council take photo with start-up representatives and EMSD's senior management.

發展局局長黃偉綸先生亦在同月28日到訪機電署總部，視察機電署的工作。黃局長對部門在推動創新科技及促進業界和初創企業協作方面作出的努力，表示全力支持。

黃局長當天更親自了解我們研發的「建築信息模擬—資產管理」系統，以及我們為這技術取得香港專利後，如何在本地和海外向建造業和機電業界推廣應用，期望將樓宇維修保養工作朝向高科技發展。我們又介紹遙距監測系統和透過E&M InnoPortal成功配對的試驗項目；並匯報機電署分別與本地業界及廣州市工貿技師學院的人才培訓交流情況，以及回顧機電署70年來與市民息息相關的服務。

Secretary for Innovation and Technology & Secretary for Development Visit EMSD

Mr. Nicholas Yang, Secretary for Innovation and Technology, visited EMSD on 14 June. We briefed him on our work progress in promoting I&T, demonstrating our effort in encouraging collaboration among government departments, public organisations, universities and start-ups. Our aim is to enhance government services with I&T and facilitate the commercialisation of local technology.

On the day, we demonstrated various I&T projects, including the remote monitoring system we developed in-house to monitor traffic lights, and pumping and lighting systems for underpasses and subways. We also showcased four I&T products by start-ups, including (1) a Fan Coil Unit Energy Saver for central air-conditioning system developed by a local university team with funding support from the Technology Start-up Support Scheme for Universities; (2) "passive light-emitting diode lighting technology" invented by a local university team; (3) video analytics for lift operation optimisation, developed by a start-up engaged via our online I&T collaboration platform E&M InnoPortal which was established to match technology needs with engineering solutions; (4) the Safematics Smart Safety System (4S) Solution, an advanced driving assistance system funded by the Public Sector Trial Scheme under the Innovation and Technology Fund with support from EMSD.

On 28 June, Mr. Michael Wong, Secretary for Development, also paid a visit to EMSD Headquarters to inspect our work. Mr. Wong expressed his full support for the Department's effort in promoting I&T and driving collaboration among the trade and start-ups.

During the visit, Mr. Wong experienced first-hand the operation of the Building Information Modelling – Asset Management (BIM-AM) System developed by EMSD, and how we, after obtaining a Hong Kong patent for BIM-AM, promoted its wider application to the construction sector and E&M trades both locally and overseas, with the aim to move building maintenance services towards this advanced technology. We also briefed Mr. Wong on various remote monitoring systems, as well as pilot projects successfully matched via the E&M InnoPortal. He was also updated on EMSD's sharing of talent training experiences with the local trade as well as the Guangzhou Industry and Trade Technician College, in addition to an overview of EMSD's services to the public in our past 70 years' history.

黃局長聆聽本署匯報有關人才培訓方面的工作。
Mr. Wong being briefed on EMSD's work on talent training.

黃局長了解由本署研發的「建築信息模擬—資產管理」系統。
Mr. Wong finding out more about the BIM-AM System developed by EMSD.

機電署署長薛永恒先生向黃局長介紹由本署自行開發的遙距監測系統示範。該系統協助署方監察全港約 1 800 支交通燈，以及約 300台安裝在行人天橋的升降機及自動梯。
Mr. Sit Wing-hang, Director of Electrical and Mechanical Services, introduces a remote monitoring system developed by EMSD to Mr. Michael Wong, Secretary for Development. The system can monitor about 1 800 traffic lights and 300 lifts and escalators installed on footbridges throughout Hong Kong.

創新科技日
Innovative Technology Day

繼去年12月成功舉辦「創新科技日」後，我們於今年6月29日再次與香港科技園公司在機電署總部大樓合辦該活動，邀請了十間來自科學園的初創企業進行專題演講，並與政府部門和公營機構的客戶代表交流，推動本地創新企業實踐研發成果的工作。當日活動由創新及科技局副局長鍾偉強博士擔任主禮嘉賓，他亦為機電署的協作平台 E&M InnoPortal 主持啟動儀式。

機電署署長薛永恒先生在活動上致歡迎辭時指出，自去年首次舉辦「創新科技日」後，機電署已持續開展推動創科的具體工作，包括成立創新辦公室，統籌部門的創科項目開發；設立E&M InnoPortal，將初創企業及大學的科技成果，以及政府部門、公營機構、機電業界的科技需求加以配對，在短短三個月間已累積超過100多個技術開發需求和解決方案，涵蓋物聯網、自動化科技、人工智能及能源效益等範疇，並成功配對10多個試驗項目，成績令人鼓舞。

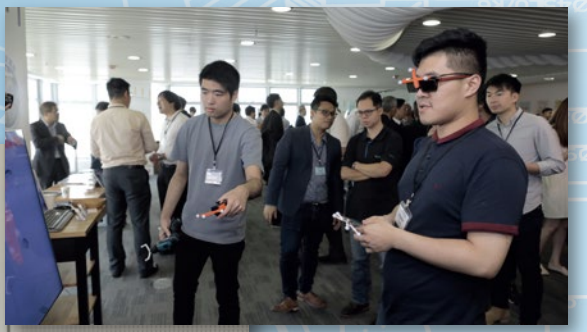
我們歡迎客戶部門、機電業界、大學及初創企業提供技術需求清單和解決方案以作配對。請致電 2808 3879 與高級工程師林鑫駿先生聯絡，或瀏覽網址 www.emsd.gov.hk/inno以獲取相關資訊。

創新及科技局副局長鍾偉強博士(中)與機電署及香港科技園公司代表主持E&M InnoPortal啟動儀式。
Dr. David Chung, Under Secretary for Innovation and Technology (middle) and representatives from the EMSD and HKSTP officiating the launch of E&M InnoPortal.

Following on the success of our first Innovative Technology Day last December, we repeated the event once again with the HKSTP on 29 June this year at EMSD Headquarters. Ten start-ups from the Science Park were invited to present on specific topics and share their experiences with representatives from different government departments and public organisations. The aim is to promote the R&D results of local I&T start-ups. Officiating guest of the day Dr. David Chung, Under Secretary for Innovation and Technology, also officiated the launching ceremony of EMSD's in-house developed E&M InnoPortal, an online platform which promotes I&T collaboration.

Mr. Sit Wing-hang, Director of Electrical and Mechanical Services, pointed out in his welcoming address that ever since our first Innovative Technology Day held in 2017, EMSD has been driving specific tasks to promote I&T. These included setting up an Inno-Office, coordinating EMSD's I&T projects; as well as setting up our E&M InnoPortal which aims to match the R&D results of start-ups and universities with the technological needs of government departments, public organisations and the E&M trade. In just three months, the E&M InnoPortal has accumulated more than 100 technological development needs and R&D solutions, covering the Internet of Things, automation technology, artificial intelligence and energy efficiency technologies. We have also successfully matched more than 10 pilot projects with potential users – an encouraging number.

We welcome client departments, the E&M trade, universities and start-ups to provide their wish-lists of technology needs and solutions for matching. Please contact Mr. Tommy Lam, Senior Engineer, at 2808 3879 or visit www.emsd.gov.hk/inno for relevant information.



「創新科技日」展出的虛擬實境創意方案，將會應用於今年9月成立的機電學院，用以訓練技術人才，提升我們對客戶的服務。
This creative virtual reality solution, displayed at the Innovative Technology Day, will be deployed in our E&M Academy to be set up this September for technician training to enhance our services to clients.

鍾博士在「創新科技日」鼓勵業界、政府部門、大學及初創企業合作，促進創新科技的發展。
At the Innovative Technology Day, Dr. Chung encourages collaboration among the trade, government departments, universities and start-ups to promote I&T development.

流動製冷系統獲設計專利

Mobile Chiller System Earned Design Patent

機電署一直以來，致力推動創新科技和研發新系統。為此，我們研發「流動製冷系統」，並花了一年半時間完成設計和建造工作。「流動製冷系統」憑其創新設計、實用性高，成為環球市場首例，並成功獲得香港專利。

為確保公營醫院和診所在空調系統突然出現故障或定期維修時保持穩定的空調供應，我們設計了容易組裝的「流動製冷系統」，可隨時隨地運送、安裝並接駁到固定的中央空調系統，提供緊急冷凍水後備供應。醫管局讚揚此系統的成效，能為醫院的中央製冷系統提供緊急支援，從而提高醫院的運作水平。

「流動製冷系統」靈活性高，四台製冷機可合併運作，也可因應需要分拆到不同地方，獨立提供臨時空調，以便在不同環境、不同建築物，甚至供不同界別(例如建造業)使用。此外，又可在冷水機組更換期間提供備用冷凍水，避免集中安排在冬季更換機組，有助紓緩人手不足，為客戶降低工程成本和加快工程進度。

我們樂意與客戶分享「流動製冷系統」的應用和運作，如有興趣，請致電 3155 4003 與高級工程師張敏婕女士聯絡。

「流動製冷系統」先後在青山醫院(上圖)、大埔王少清家庭醫學中心和將軍澳醫院進行實地測試，只需數小時就能完成安裝接駁。

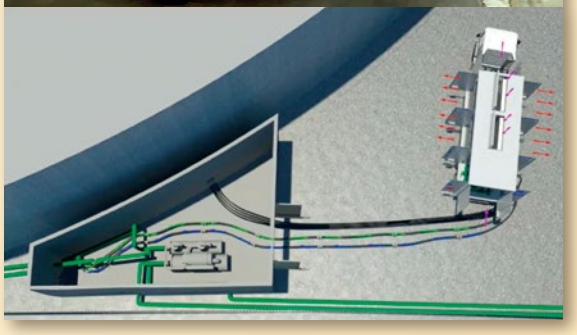
The test run of the Mobile Chiller System has been conducted at Castle Peak Hospital (as shown in the picture above), Wong Siu Ching Family Medicine Centre in Tai Po and Tseung Kwan O Hospital. It only takes a few hours to complete the installation and connection.

The EMSD has always been committed to promoting innovative technologies and developing new systems. To this end, we have developed the Mobile Chiller System and spent one and a half years completing the design and construction work. With an innovative design and high practicality, the Mobile Chiller System is the first of its kind in the global market and has successfully obtained a patent in Hong Kong.

The easily assembled Mobile Chiller System is designed to sustain air-conditioning service for public hospitals and clinics during abrupt breakdowns or regular maintenance of their air-conditioning systems. It can be transported, installed and connected to a central air-conditioning system anywhere and anytime, providing emergency backup chilled water supply. The system is highly regarded by the Hospital Authority for its effectiveness in offering emergency support to central chiller systems in hospitals, thereby enhancing their operational capability.

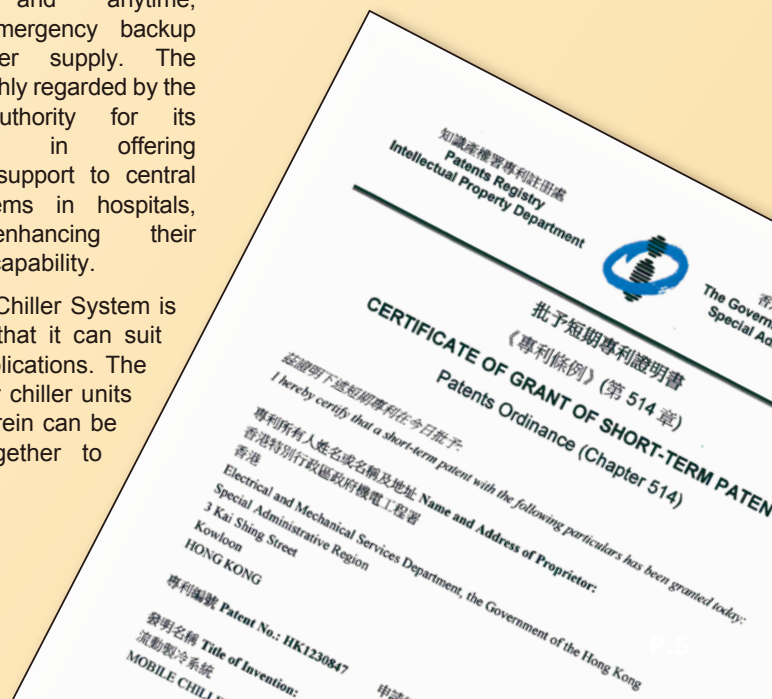
The Mobile Chiller System is versatile in that it can suit different applications. The four modular chiller units installed therein can be grouped together to perform tasks. In order to meet operational needs, they can also be separated to provide air-conditioning individually, at different locations, under different environments, in different buildings, or even for different sectors, e.g., the construction industry. Furthermore, it provides backup chilled water supply to an air-conditioning system during the replacement of its chiller units, enabling chiller replacement work to be carried out throughout the year rather than concentrated in the winter season. This helps relieve manpower shortage, and allows our clients to reduce costs and time.

We are happy to share with our clients the applications and operation of the Mobile Chiller System. Please contact our Senior Engineer, Ms. Jovian Cheung, at 3155 4003.



虛擬的三維設計不但營造良好視覺效果，而且有助進行精準的數據分析和場景模擬。我們採用「建築信息模擬」為主要繪圖工具，在設計和安裝「流動製冷系統」時起重要作用。

The virtual 3D design not only creates good visual effect, but also facilitates precision data analysis and scenario simulation. Building Information Modelling is used as a drawing tool which plays an important role in the design and installation of the Mobile Chiller System.



優化航空障礙燈系統
Enhancement of Obstacle Light System

為客戶部門提供安全可靠的服務，一直是機電署堅守的承諾。位於赤鱲角的香港國際機場是全球最繁忙的機場之一，每天飛機起降量超過 1 100 架次。機電署與民航處長期緊密合作，以確保航空安全。為此，我們主動建議在所有航空障礙燈基站加裝不間斷供電系統，避免電源故障對航空障礙燈遠程監察系統造成影響。有關建議獲民航處支持。我們以不影響客戶運作為前提，並在確保現有航空障礙燈系統維持正常運作的情況下，於短短三個月內完成所有安裝工作。客戶部門感謝我們積極推動優化設備的工作，使障礙燈基站的停機檢查時間顯著減少。

民航處在赤鱲角機場航道的周邊山嶺上，設置了八座航空障礙燈基站，提示機師飛經附近山嶺時注意飛行安全。機電署設有24小時全天候無線電信號系統，實時遠程監控航空障礙燈基站的運作情況。當電源不穩定或中斷時，遠程監察系統的無線電信號便會受到影響或停止，令工程人員不能實時監控航空障礙燈的運作，對航空交通構成風險。我們亦須攀山越嶺到基站作實地檢查，才能確定電源間斷對航空障礙燈系統所造成的影響，並予以跟進。

航空障礙燈基站加裝不間斷供電系統後，可確保在電源出現故障時，航空障礙燈遠程監察系統仍能無間斷地正常運作，把障礙燈的運作數據及時傳回控制中心，讓我們作遠程診斷，以便即時找出故障原因，加快跟進航空障礙燈系統的情況。這樣既能減省不必要的實地檢查所需的人力和時間，亦有助加強航空障礙燈系統的可用性，以保障航空交通安全。

位於赤鱲角機場民航處總部的機電署控制中心，透過遠程監察系統，全天候監控八座航空障礙燈基站的運作情況，可即時找出障礙燈系統出現故障的原因。
The EMSD's control centre in the CAD Headquarters at the Chek Lap Kok Airport monitors the operation of eight OLS round the clock through the remote monitoring system to immediately identify the reasons for any failure of the obstacle light system.

基站安裝不間斷電力供應系統後，可減少前線工作人員進行緊急維修的次數。小圖為航空障礙燈。
The installation of UPS system at the station can reduce the frequency of frontline staff conducting emergency repair. Shown in the circled picture is the obstacle lights.

Providing safe and reliable services to client departments has been a persistent commitment of the EMSD. The Hong Kong International Airport at Chek Lap Kok is one of the busiest airports in the world, with over 1 100 take-offs and landings every day. The EMSD has all along been working closely with the Civil Aviation Department (CAD) in ensuring aviation safety. To this end, we proactively proposed the installation of uninterruptible power supply (UPS) systems at all obstacle light stations (OLS) to prevent the remote monitoring system of obstacle lights from being affected by power supply failure. The proposal was supported by the CAD. All the installation works were completed in just three months on the premise of not affecting our clients' operation and of ensuring that all existing OLS maintained normal operation. Our client departments have expressed appreciation for our efforts in actively promoting facility enhancement, which have significantly reduced the OLS downtime required for inspection.

The CAD deploys eight OLS on mountains near the flight paths of the Chek Lap Kok Airport to alert pilots of flight safety when navigating across the nearby mountains. A 24-hour radio signal system is available at the EMSD to provide real-time and remote monitoring of the operation of the OLS. When the power supply is unstable or interrupted, radio signals of the remote monitoring system will be affected or stopped, preventing engineering personnel from monitoring the real-time operation of the obstacle lights, thus posing risks to aviation safety. It is also necessary for us to make strenuous climbs across the mountains to conduct on-site inspection of the station in order to identify the impact of power interruption on the obstacle light system for follow-up action.

The installation of UPS systems at the OLS can ensure that the remote monitoring system of obstacle lights operates normally in an uninterrupted manner at times of power supply failure, and transmits operational data of the obstacle lights to the control centre in time for remote diagnosis and immediate identification of the reasons for the failure, thereby expediting follow-up work on the obstacle light system. This not only reduces the manpower and time required for making unnecessary on-site inspection, but also enhances availability of the obstacle light system to safeguard aviation safety.

主辦亞太經濟合作組織能源工作組會議

Hosting Asia-Pacific Economic Cooperation Energy Working Group Meetings

機電署與國際組織積極合作，就重要能源議題進行討論，分享能源發展的最新信息，以推動和實行有效的節能政策及措施。今年5月14至18日，環境局聯同機電署代表中國香港在本港主辦亞太經濟合作組織（亞太經合組織）能源工作組第55次會議，共有超過180位來自亞太經合組織成員經濟體的代表及能源專家出席，討論相關地區的能源機遇和挑戰。

與會者的討論主要環繞其共同目標，即以2005年為基準年，於2035年之前將能源強度減少45%，以及於2030年之前把可再生能源的比例提升至2010年的兩倍。亞太能源研究中心在會議上發表最新數據，指出亞太經合組織經濟體在2015年的能源強度比2014年下降了3.5%，這是十年來最大的降幅。

能源工作組的專家指出，要實現以上節能目標，單靠規管措施並不足夠，市民大眾必須一同參與，從小改變行為模式及態度。為此，我們在5月15日特別舉辦了「年輕人與亞太經合組織專家交流會」，鼓勵年輕人裝備自己，提升能源效益及節能的意識，了解可持續發展的重要性。

今年5月，環境局聯同機電署代表中國香港在本港主辦亞太經合組織能源工作組第55次會議。
In May this year, the Environment Bureau and the EMSD jointly hosted the 55th APEC Energy Working Group meetings in Hong Kong on behalf of Hong Kong, China.

The EMSD actively co-operates with international organisations to discuss important energy issues and share the latest information on energy development to promote and implement effective energy conservation policies and measures. On 14 to 18 May this year, the Environment Bureau and the EMSD jointly hosted the 55th Asia-Pacific Economic Cooperation (APEC) Energy Working Group (EWG) meetings in Hong Kong on behalf of Hong Kong, China. Over 180 delegates and energy experts from APEC member economies attended the meetings to discuss energy challenges and opportunities in the region.

Discussion of participants mainly focused on their common goals, i.e. reducing energy intensity by 45% by 2035 using that of 2005 as the baseline, and doubling the renewable energy proportion by 2030 compared to that of 2010. During the meetings, the Asia-Pacific Energy Research Centre released the latest data indicating that the APEC economies' energy intensity fell by 3.5% year-on-year in 2015, the biggest drop in a decade.

Experts of the EWG pointed out that we could not rely solely on regulatory measures to achieve the above energy saving targets. Every member of the society must work together to change behavioural patterns and attitudes from an early age. To this end, the "Youth Dialogue with APEC Experts" was organised on 15 May 2018 with the objective of encouraging the youth to equip themselves, raise their awareness of energy efficiency and conservation, as well as to understand the importance of sustainability.

「年輕人與亞太經合組織專家交流會」由機電工程署副署長／規管服務賴漢忠先生和亞太經合組織能源工作組代表共同主持。
The "Youth Dialogue with APEC Experts" co-chaired by Mr. Lai Hong-chung, Deputy Director of Electrical and Mechanical Services / Regulatory Services, and representatives of the APEC EWG.

作為後備中心，馬灣海上交通控制站的設施和性能可媲美上環的航監中心。
The facilities and performance of the Ma Wan Marine Traffic Control Station, as a backup centre, are on a par with those of the VTC in Sheung Wan.

協助加強船隻航行監察服務

Assisting in Strengthening Vessel Traffic Services

為應付港口的急速發展及不斷增加的海上交通流量，並加強海上交通管理和提升港口安全，海事處委託機電署為其船隻航行監察服務系統(航監系統)進行更換及升級工程。是次工程把馬灣海上交通控制站的功能全面提升，使其成為與船隻航行監察中心(航監中心)同步運作及互補的後備中心。這個能支援並聯操作的後備中心設備完善，系統性能亦可媲美位於港澳客運碼頭的航監中心。

新的馬灣航監中心的系統設計極具彈性，不但可以作為後備航監中心，於緊急情況時維持海事處的日常航監運作，而且能配合海事處的未來發展，讓海事處人員可同時在馬灣和上環兩個航監中心內工作。我們成功突破地域界限，以微波和全數碼化通訊系統把馬灣和上環的航監系統無縫地連接起來，提供近雲端式環境，讓航監系統實時存取資料和同步運作，使兩個航監中心得以實現並聯操作。

第三代航監系統採用最先進的監察及通訊科技系統和技術，包括固態數碼雷達、高速數據及影像處理系統、以網際規約為本的甚高頻無線電通訊系統等，有效提高航監系統的整體效率、可靠性和靈活性，當中提升馬灣海上交通控制站的後備航監中心設計，更是整個工程項目的亮點之一。

設計大型的航監系統是我們的專長。客戶如有任何查詢，歡迎致電 3757 6027 與高級工程師彭國強先生聯絡。

In order to cope with the rapid development of the port and the increasing volume of marine traffic, as well as to enhance control of marine traffic and safety in port, the EMSD was entrusted by the Marine Department (MD) to replace and upgrade the Vessel Traffic Services (VTS) System. In this project, the functions of the Ma Wan Marine Traffic Control Station were fully upgraded to make it a backup centre which operates in parallel with the Vessel Traffic Centre (VTC) and complements its functions. This well-equipped backup centre supports parallel operation and its system performance is also on a par with that of the VTC at the Hong Kong-Macau Ferry Terminal.

With a highly flexible system design, the new VTC in Ma Wan not only serves as a backup VTC to maintain daily operation of the MD in the event of emergency, but also allows the staff of the MD to work simultaneously at the VTCs in Ma Wan and Sheung Wan, so as to tie in with the future development of the MD. We have overcome the geographical constraints and seamlessly connected the VTS Systems in Ma Wan and Sheung Wan by using microwave and full digital communication systems, thus providing a near-cloud-based environment for real-time data access and simultaneous operation of the VTS Systems and enabling parallel operation of the two VTCs.

The third generation VTS System adopts the most advanced monitoring and communication systems and technologies, including solid-state digital radars, high-speed data and image processing systems, Internet Protocol-based very high frequency radio communication systems, etc., which effectively enhance the overall efficiency, reliability and flexibility of the VTS System. Upgrading the Ma Wan Marine Traffic Control Station as the backup VTC is one of the highlights of the project.

Designing large-scale VTS Systems is our specialty. For any enquiry, you are welcome to contact Mr. Pang Kwok-keung, Senior Engineer, at 3757 6027.

馬灣海上交通控制站的新系統於今年2月完成安裝，標誌着第三代航監系統的升級工作全部完成。
The successful installation of the new system at the Ma Wan Marine Traffic Control Station in February this year marked the full completion of the upgrading work of the third generation VTS System.

粵港合作培訓人才
Hong Kong and Guangdong Co-operate in Talent Training

機電署致力培訓年青技術員，以傳承專業技術和推動機電業發展。為加強粵港兩地技術培訓機構的協作及交流，並提升兩地機電業技術員的水平，機電署於今年6月1日與廣州市工貿技師學院簽訂人才培訓合作備忘錄。是次合作不但打破地域界限，更為雙方長遠合作培訓機電業人才和實現共同發展目標揭開序幕。此外，我們亦希望藉此提升技術員的水平，從而提高客戶服務質素和維護客戶的機電資產。

機電署署長薛永恒先生在備忘錄簽署儀式上指出，香港與內地合作培訓技術人員，長遠能為香港機電業與內地建立合作關係，不但有利機電業的整體發展，更有助推動兩地技術員的互動和協作，為香港青年開拓發展空間，進一步促進粵港澳大灣區人才共融。

根據備忘錄，機電署未來三年將分批派遣不同職級的技術人員，參加由廣州市工貿技師學院提供的技術培訓課程，共同提升空調製冷專業人才的水平。同時，雙方亦計劃為2019年第45屆世界技能大賽提供聯合集訓，以促進文化和技術交流。

當日出席簽署儀式的嘉賓來自粵港兩地不同機構，包括廣州市人力資源和社會保障局、中央人民政府駐香港特別行政區聯絡辦公室、發展局、香港機電業推廣工作小組、合作培訓技術員先導計劃參與機構、第44屆世界技能大賽機電代表團、職業訓練局學徒事務署、香港生產力促進局等。

在廣州市人力資源和社會保障局副局長何士林先生(左一)和機電工程署署長薛永恒先生(右一)的見證下，廣州市工貿技師學院院長湯偉群女士(左二)和機電工程署助理署長陳志偉先生(右二)代表合作雙方簽署人才培訓合作備忘錄。

Witnessed by Mr. He Shilin, Deputy Director of the Guangzhou Municipal Human Resources and Social Security Bureau (1st left), and Mr. Sit Wing-hang, Director of Electrical and Mechanical Services (1st right), Ms. Tang Weiqun, Principal of the GITTC (2nd left), and Mr. Chan Chi-wai, Assistant Director of Electrical and Mechanical Services (2nd right), signed a memorandum of co-operation for talent training on behalf of both parties.

The EMSD is committed to training young technicians for passing on professional skills and promoting E&M trade development. To strengthen collaboration and exchanges between technical training institutions in Guangdong and Hong Kong, as well as to enhance the professional standards of E&M technicians in both places, the EMSD and the Guangzhou Industry and Trade Technician College (GITTC) signed on 1 June this year a memorandum of co-operation for talent training. This memorandum not only broke the geographical boundaries, but also kick-started the long-term co-operation between both parties in training E&M talents and achieving their common development goals. Through this, we also hope to upgrade the professional standards of technicians, thereby enhancing the quality of our services provided to client departments and safeguarding their E&M assets.

Addressing the signing ceremony of the memorandum, Mr. Sit Wing-hang, Director of Electrical and Mechanical Services, pointed out that Hong Kong's co-operation with the Mainland in training technicians can, in the long term, build a co-operative relationship between the E&M trade in Hong Kong and in the Mainland. This will not only facilitate the overall development of the E&M industry, but also help promote interaction and collaboration between technicians from both places, creating development opportunities for young people in Hong Kong and further promoting integration of talents in the Guangdong-Hong Kong-Macao Bay Area.

According to the memorandum, the EMSD will, in the next three years, send technicians of different ranks in phases to participate in technical training courses provided by the GITTC to jointly enhance the standards of refrigeration and air-conditioning professionals. In addition, both parties plan to conduct a joint training programme for the 45th WorldSkills Competition 2019 to foster cultural and technological exchanges.

Guests attending the signing ceremony include representatives from different organisations in both places, including the Guangzhou Municipal Human Resources and Social Security Bureau, the Liaison Office of the Central People's Government in the Hong Kong Special Administrative Region, the Development Bureau, the Hong Kong Electrical and Mechanical Trade Promotion Working Group, participating organisations of the Pilot Cooperative Apprentice Training Scheme, the E&M delegation to the 44th WorldSkills Competition, the Office of the Director of Apprenticeship of the Vocational Training Council, the Hong Kong Productivity Council, etc.

雙方代表與一眾嘉賓及機電署見習技術員合照留念。

Pictured are representatives of the two parties, guests and the EMSD's technician trainees.

啟德區域供冷開放日
Kai Tak District Cooling Open Day

啟德發展區區域供冷系統是香港首個區域供冷系統。為慶祝部門成立70周年，同時連繫社區以推廣區域供冷系統的能源效益，機電署聯同啟德區域供冷系統營辦商於2018年5月19日在啟德區域供冷系統北廠舉辦首個開放日，以提高市民的環保意識，共同為香港締造健康、宜居及可持續發展的環境。

環境局局長黃錦星先生在開幕禮上指出，區域供冷系統是具能源效益的空調系統。為推動低碳發展，政府正研究為其他新發展區／項目，包括東涌新市鎮擴展計劃、洪水橋新發展區和港珠澳大橋香港口岸人工島上蓋發展項目，提供區域供冷系統。

局長還與區內從聖公會聖十架小學、保良局何壽南小學和文理書院(九龍)選出的「區域供冷大使」對話，聆聽他們分享使用區域供冷的好處。這些「區域供冷大使」將肩負在校內推廣環保及能源效益的重任。開放日當天約有850名市民出席，現場亦設有公眾導賞團，讓大家參觀廠房內的供冷設備，從而加深市民對啟德區域供冷系統的了解。

環境局局長黃錦星先生(右六)、機電署署長薛永恒先生(左六)及一眾嘉賓推廣區域供冷系統的能源效益。
Secretary for the Environment, Mr. Wong Kam-sing (6th right), Director of Electrical and Mechanical Services, Mr. Sit Wing-hang (6th left), and other guests promote the energy efficiency of the DCS.

The District Cooling System (DCS) at the Kai Tak Development is a first-of-its-kind DCS in Hong Kong. To celebrate the 70th anniversary of the EMSD as well as connect with the community to promote the energy efficiency of the DCS, the Department, in collaboration with the operator of the Kai Tak DCS, organised the first Open Day at the North Plant of the Kai Tak DCS on 19 May 2018, with a view to raising public awareness of environmental protection, thus jointly creating a healthy, liveable and sustainable environment for Hong Kong.

Mr. Wong Kam-sing, Secretary for the Environment, pointed out at the opening ceremony that the DCS is an energy-efficient air-conditioning system. To promote low-carbon development, the Government is studying the provision of DCSs for other new development areas/projects, including the Tung Chung New Town Extension project, the Hung Shui Kiu New Development Area and the topside development at the Hong Kong Boundary Crossing Facilities Island of the Hong Kong-Zhuhai-Macao Bridge.

The Secretary also conversed with District Cooling Ambassadors nominated by SKH Holy Cross Primary School, PLK Stanley Ho Sau Nan Primary School and Cognitio College (Kowloon) in the district, and listened to their sharing of the benefits of using district cooling. These ambassadors will be responsible for promoting environmental protection and energy efficiency in their schools. Around 850 citizens in the community attended the Open Day. Public guided tours were also arranged on the Open Day for members of the public to visit the cooling facilities at the plant, thereby enhancing their understanding of the Kai Tak DCS.

參觀者透過導賞團認識冷水供應的廣泛覆蓋範圍。
Visitors learn about the wide coverage of cold water supply through the guided tours.

開放日當天設有以機電署規管服務及能源效益為主題的攤位遊戲，藉此推廣機電安全及節能。
Game booths with the theme of EMSD regulatory services and energy efficiency are featured on the Open Day to promote E&M safety and energy conservation.

推廣區域供冷
Promoting District Cooling

機電署署長薛永恒先生在研討會上指出，區域供冷系統是香港眾多綠色基礎設施之一。根據世界經濟論壇發表的《2017–2018年度全球競爭力報告》，香港的基礎設施發展在137個經濟體中排名第一。
Mr. Sit Wing-hang, Director of Electrical and Mechanical Services, pointed out at the Symposium that the District Cooling System is one of the many green infrastructures in Hong Kong. According to the Global Competitiveness Report 2017-2018 published by the World Economic Forum, Hong Kong's infrastructure development ranked first out of 137 economies.

政府作為「規管者」、「促成者」及「推廣者」，以創新、互動及協作為原則，致力提升香港的機電設備。
As a "regulator", "facilitator" and "promoter", the Government endeavours to enhance Hong Kong's E&M facilities following the principles of being innovative, interactive and collaborative.

行政長官在2017年的《施政報告》中發表施政新理念，強化政府作為「促成者」、「推廣者」和「規管者」的角色，以建設更美好的香港。機電署一直擔當這些角色，並採取具體行動，以創新、互動及協作為原則，促使香港在機電安全及善用能源方面達到世界水平。

為推廣可持續發展，機電署署長薛永恒先生和高級工程師盧潔瑩女士遠赴英國倫敦，出席由英國特許屋宇設備工程師學會主辦的「2018年技術研討會」。我們以「香港區域供冷系統」為演講主題，向海外學者和業界從業員介紹機電署在該項目上所扮演的主導角色，探討如何以創新科技推動可持續發展，並闡述香港在響應《巴黎協定》、應對氣候變化、善用能源和強化城市基礎設施方面作出的貢獻，藉此提升香港的國際地位。

客戶如欲了解更多關於啟德發展區區域供冷系統，歡迎致電3757 6244與我們的高級工程師盧潔瑩女士聯絡。

The Chief Executive announced in the 2017 Policy Address a new philosophy of governance to strengthen the Government's roles as a "facilitator", "promoter" and "regulator", with a view to striving for a better Hong Kong. The EMSD has been actively playing these roles and has taken concrete actions to help Hong Kong achieve world-class standards in terms of E&M safety and effective use of energy, following the principles of being innovative, interactive and collaborative.

To promote sustainable development, Mr. Sit Wing-hang, Director of Electrical and Mechanical Services, and Ms. Denise Lo Kit-ying, Senior Engineer, attended the Technical Symposium 2018 organised by the Chartered Institution of Building Services Engineers, in London, United Kingdom. With "The District Cooling System in Hong Kong" as the presentation topic, we introduced to overseas academics and trade practitioners the leading role played by the EMSD in the project, explored ways of using innovative technologies to promote sustainable development, and highlighted Hong Kong's contribution in supporting the Paris Agreement, addressing climate change, making effective use of energy and strengthening urban infrastructure, so as to enhance Hong Kong's position in the international arena.

If you would like to know more about the District Cooling System at the Kai Tak Development, please contact Ms. Denise Lo Kit-ying, Senior Engineer, at 3757 6244.

機電青少年大使周年聚會

E&M Young Ambassador Annual Gathering

機電署於2009年成立機電青少年大使計劃，致力在社區推廣機電安全、能源效益及機電業發展，計劃推出至今已有約6 000名登記會員。今年4月5日，我們在機電署總部大樓舉辦機電青少年大使周年聚會，作為機電署成立70周年的慶祝活動之一，吸引超過150名會員及親友出席，場面熱鬧。

除了回顧過往的精彩活動和介紹未來的發展動向外，我們還安排了遊戲環節，以及邀請「樂齡科技顯愛心」比賽的得獎隊伍，跟與會者交流設計心得和經驗。

機電青少年大使計劃專為6至21歲的兒童和青少年而設，透過定期舉辦各類活動，向會員傳遞正確的機電知識，同時亦讓會員向家人及朋輩傳遞機電安全、能源效益及機電業發展的資訊，以及期望為本港機電業培育下一代人才。有關計劃細節和登記詳情，請瀏覽機電青少年大使計劃網頁(http://emya.emsd.gov.hk)或掃描右下角二維碼。

我們在機電署總部大樓舉辦機電青少年大使周年聚會，吸引超過150名會員及親友出席，場面熱鬧。
We organised the E&M Young Ambassador Annual Gathering at the EMSD Headquarters Building, attracting over 150 members and their relatives and friends. The event was filled with joyful atmosphere.

「機電定向」遊戲環節讓青少年大使有機會探索機電署總部大樓的環保設施和參與「機電·夢飛翔」展覽館的互動遊戲，有助加深他們對機電安全、能源效益和機電署工作的認識。
The game session "E&M Orienteering" gives young ambassadors an opportunity to explore the environmental protection facilities at the EMSD Headquarters Building and participate in the interactive games of the EMSD Gallery, which helps enhance their understanding of E&M safety, energy efficiency and the work of the EMSD.

Committed to promoting E&M safety, energy efficiency and the development of the E&M trade in the community, the EMSD established the E&M Young Ambassador (EMYA) Programme in 2009, which has about 6 000 registered members since its launch. On 5 April 2018, we organised the E&M Young Ambassador Annual Gathering at the EMSD Headquarters Building as one of the celebrations for the 70th anniversary of the EMSD. Attracting over 150 members and their relatives and friends, the event was filled with joyful atmosphere.

In addition to reviewing past vibrant activities and introducing future developments, we also arranged game sessions and invited winning teams of the Gerontech Youth Challenge to exchange their design insights and experience with participants.

Tailored for children and teenagers aged 6-21, the EMYA Programme passes on correct E&M knowledge to members by organising various activities regularly under the Programme. It also disseminates information on E&M safety, energy efficiency and the development of the E&M trade through members to their families and peers, and nurtures next-generation talents for the local E&M trade. For details of the programme and registration, please visit the website of the EMYA Programme or scan the QR code (right).

http://emya.emsd.gov.hk

您的寶貴意見對我們非常重要！如大家對《機電傳聲》有任何意見或回應，請隨時聯絡我們，讓我們不斷改進。
如果您的同事有興趣收取本通訊及加入郵寄名單，歡迎以電郵（bssd@emsd.gov.hk）或傳真（傳真號碼：2882 1574）方式通知我們。
如果您希望我們從郵寄名單中刪除您的名字，或更新您的資料，請透過電郵（bssd@emsd.gov.hk）與我們聯絡。

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機電傳聲

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