

## 與客為伴 協助民航處發展新總部

## EMSD Partners with Civil Aviation Department in HQ Development



本署機電工程師在新航空交通管制中心內就智能燈光控制系統為客戶進行測試及校驗工作。  
Our electrical and mechanical engineer conducts testing and commissioning works on the intelligent lighting control system for client in the new Air Traffic Control Centre.

**位**於機場島的民航處新總部於2012年6月落成，大大提升了香港的航空樞紐地位。機電工程署在整個項目中提供全方位的專業工程意見和支援，為民航處和市民大眾服務，加強航空安全。我們在機電、電子和屋宇裝備系統各方面的專業參與，涵蓋新總部由規劃以至系統設置、測試和校驗的整個過程。

新總部由三幢大樓組成，分別是航空交通管制大樓、辦公大樓和設施大樓。新航空交通管制中心配備先進的航空交通管制系統及發光二極管照明設備。

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Hong Kong's status as an aviation hub received a boost with the completion of the new headquarters of the Civil Aviation Department (CAD) on Airport Island in June 2012. EMSD provided comprehensive professional engineering advice and support throughout the project to serve CAD and the community in enhancing aviation safety. Our expertise in electrical, mechanical, electronics and building services systems was instrumental to the headquarters development from planning to system installation, testing and commissioning.

The new CAD headquarters comprises three main buildings, namely the Air Traffic Control Building, Office Building and Facility Building.

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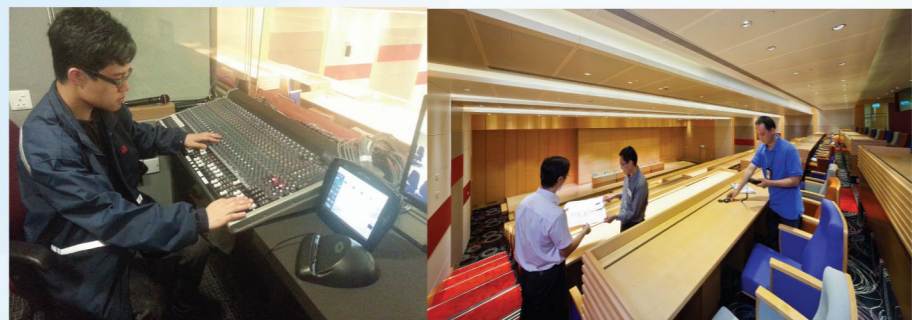
本署技術人員檢查民航處新總部的高能效水冷式冷卻塔。  
Our technician inspects the cooling towers of the energy efficient water-cooled chiller systems at the new CAD headquarters.

(接上頁)

新總部的另一特色，是擁有採用了嶄新視聽科技的世界級水平會議廳。

民航處在新總部亦採用了多種環保節能科技，例如：導光管、光纖太陽能追蹤照明系統、光伏板、水冷空調系統和電動車充電設施等。

為使各項工程系統能夠順利移交民航處，機電工程署進駐新總部的工作隊伍，在高級工程師的帶領下，正為各項新裝置的儀器和系統調校工作提供專業意見，以及協助民航處研究可予提升和改善的地方。在新總部於2013年全面投入運作後，駐場工作隊亦會提供全方位的操作和維修保養服務。



本署機電工程師及電氣監工為這個世界級水平的會議廳，提供各種影音設備，包括即時傳譯系統的設計、安裝、測試及校驗服務。  
Our electrical and mechanical engineer and electrical works supervisor are responsible for the design, installation, testing and commissioning of the audio-visual equipment including Simultaneous Interpretation System at the world-class auditorium.

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The new Air Traffic Control Centre is equipped with advanced air traffic control systems and LED lighting system. A world-class auditorium, outfitted with the latest audio-visual technologies, is another key feature of the new headquarters.

CAD has adopted many energy saving and environment-friendly technologies throughout its new headquarters, including light pipes, a solar tracking fibre optic lighting system, photovoltaic panels, water-cooled chiller systems and electric vehicle charging facilities, to name but a few.

To facilitate the handover of the engineering systems to CAD, a resident team led by senior engineer of EMSD is now providing professional advice on fine-tuning the newly installed equipment and systems and helping CAD identify areas for system



performance improvement. The team will also provide comprehensive operation and maintenance services when the new headquarters becomes fully operational in 2013.



<http://www.emsd.gov.hk/emsd/vl/28/s1.html>  
圖片故事 手機即看  
Shoot and view our slideshow



民航處新總部大樓的光纖太陽能追蹤照明系統，能收集及引導天然日光到大樓內。此系統由本署負責保養。  
A solar tracking fibre optic lighting system maintained by EMSD, collects natural daylight and distributes it into the new CAD building.

香港是世界上最繁忙的港口之一，有效監察港口的船隻航行情況，對港口運作效率、航行安全及海上環境保護都極為重要。海事處最近委託機電工程署，為香港船隻航行監察服務系統（航監系統）的更換及提升工程，提供項目管理服務。

這個項目的總投資約為港幣5.58億元，是機電工程署承接的最大型項目之一。機電工程署負責整體項目管理，包括系統設計、草擬技術規格、招標、測試及校驗等，直至2016/17年該項目完成為止。

要管理規模如此龐大的項目，我們除須掌握航監服務方面的專門知識外，對現行航監系統也要有深入認識，以確保在更換工程進行期間，本港的航監服務能如常進行，不受干擾。機電工程署對航監系統的運作有豐富經驗，有足夠能力勝任這項工作。我們的高級電子工程師和電子工程師團隊自1986年起開始支援海事處推行航監系統，並在2011/12年就航監系統的提升工作為海事處完成了為期12個月的顧問研究。

在設計方面，我們會借鑑世界上其他主要港口的經驗和根據本港的獨特運作環境，為新航監系統研定各項適合的功能。

海事處於2012年11月19日與機電工程署簽訂服務水平協議，並在當日向我們頒發嘉許書，感謝同事們在顧問研究工作的貢獻。我們很高興可以繼續為海事處提供專業的技術支援。雙方多年來建立的緊密伙伴關係，為我們提供了良好的工作環境，並為項目的圓滿完成奠下良好基礎。



海事處的黎志東先生（左）把嘉許書頒發給本署的陳炳新先生，就顧問研究於2011/12年圓滿完成表示謝意。  
Mr. Lai of the Marine Department (left) presents a Letter of Appreciation to our Mr. Chan as a thank you for the successful completion of a consultancy study in 2011/12.



出席簽署儀式的人員：（左起）海事處總經理/船隻航行監察黎志東先生、海事處助理處長/港口管理鍾少文先生、機電工程署助理署長/2張國輝先生及機電工程署總工程師/市政工程陳炳新先生。  
Officials attend the signing ceremony: from left, Mr. Lai Chi-tung, General Manager / Vessel Traffic Services, Marine Department; Mr. Chung Siu-man, Assistant Director / Port Control, Marine Department; Mr. Cheung Kwok-fai, EMSD Assistant Director / 2; and Mr. Chan Ping-sun, Chief Engineer / Municipal, EMSD.

## 機電工程署將為 新船隻航行監察服務系統 提供項目管理服務

### EMSD to Project Manage New Vessel Traffic Services System

Hong Kong is one of the busiest ports in the world and effective harbour traffic monitoring and surveillance are vital to port efficiency, navigation safety, and maritime environment protection. The Marine Department (MD) recently entrusted EMSD with the provision of project management services for replacing and upgrading the Hong Kong Vessel Traffic Services (HKVTS) System.

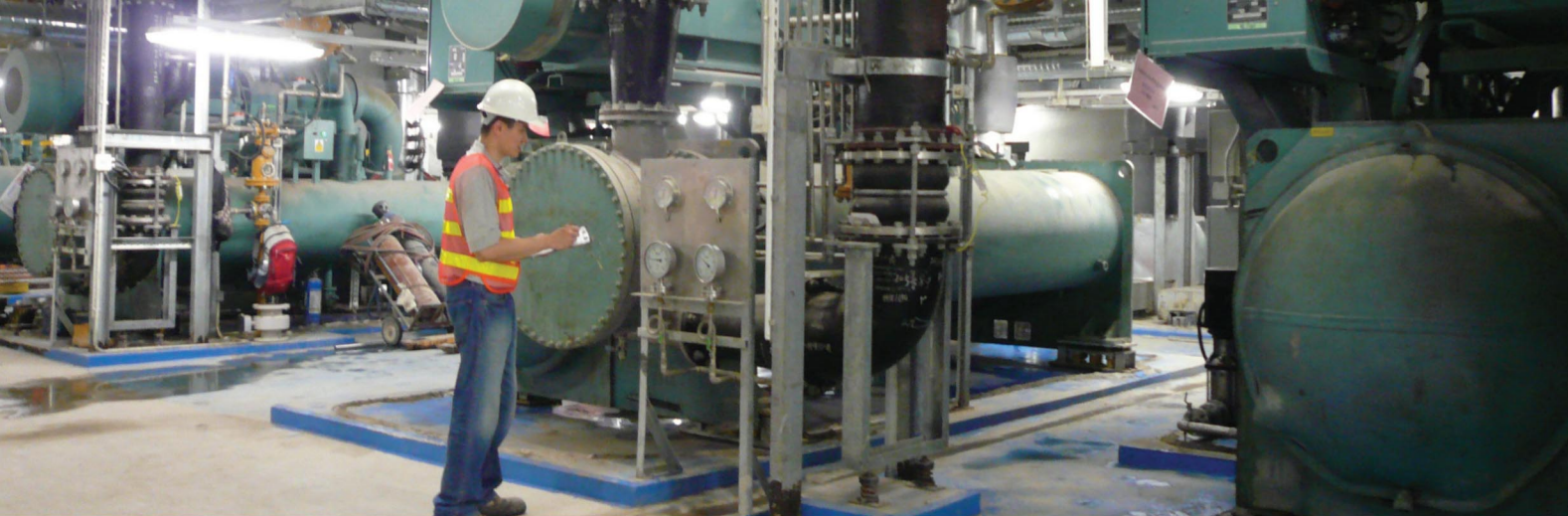
The contract value of the HKVTS System is about HK\$558 million, which is one of the

largest projects undertaken by EMSD. We are responsible for overall project services, including design, preparation of the specifications, tendering, testing and commissioning until project completion in 2016/17.

When it comes to managing such a large-scale project, special VTS knowledge and deep understanding of the existing HKVTS System are essential to ensure that Hong Kong will continue to maintain an uninterrupted VTS during the replacement works. EMSD has extensive prior experience in the HKVTS System and is well positioned to take on this project. Our team of senior electronics engineer and electronics engineers supported MD in the implementation of the HKVTS System since 1986 and completed a 12-month consultancy study on system enhancement during 2011/12.

In design, with experience drawn from other leading ports worldwide, the features and functions of the new HKVTS System will be customised to suit Hong Kong's unique operating environment.

MD and EMSD signed the Service Level Agreement (SLA) on 19 November, 2012, when the client also presented us with a letter of appreciation for our consultancy study. We are delighted to continue to provide professional and technical support to MD. The strong partnership with MD, established over many years, will no doubt add value to our work and contribute to the success of the project.



添

馬立法會綜合大樓、政府總部大樓及行政長官辦公室是香港的政治與公共行政中心。早於2011年各部門開始陸續遷入這座新地標時，機電工程署團隊已作好準備，接手負責添馬各大樓的機電、空調、屋宇裝備及電子系統操作與維修保養工作，克服因建築工程時間緊迫而衍生的各項技術問題。

添馬各幢新大樓的重要系統裝置包括先進精密的高壓和低壓配電系統、製冷量超過7,000千瓦特的中央製冷機組、自動廢物收集系統、升降機和自動梯系統、電子投票系統、即時傳譯系統、電視製作系統、視像幕牆及會議系統。這些系統對立法會議事程序的進行和政府總部的運作，特別是立法會會議廳和政府總部會議廳和演講廳所舉行的會議和活動，發揮十分重要的作用。部分系統，例如自動廢物收集系統，更是首次在香港的政府辦公大樓採用，為操作和維修保養工作帶來種種技術挑戰。

立法會綜合大樓和政府總部備受市民關注，各項系統例如供電、空調、照明、投票、電視製作及視像顯示系統等必須穩妥可靠，這是確保現代化立法機關能以高效和具透明度方式運作的關鍵條件。遇有重大或具爭議性的事件時，立法會綜合大樓和政府總部可能會日以繼夜不停運作，各項系統都必須24小時不停運作無誤。

我們的團隊深明責任重大，為確保能適時和專業地展開各項操作和維修保養服務，我們在2011年成立駐場專責團隊，協助各客戶部門進行系統測試和驗收工作，為日後持續提供具效率的操作和維修保養服務奠下基礎。

展望將來，我們的團隊會繼續致力為添馬各大樓提供優質可靠的機電操作和維修保養服務，以滿足在該處工作的人員、到訪人士及廣大香港市民的需要和期望。

## 服務團隊齊協力

確保添馬各大樓暢順運作

## Team Supports

Smooth Operations at Tamar

The Legislative Council Complex (LCC), Central Government Offices (CGO) and Chief Executive Office at Tamar are the hub of Hong Kong politics and public administration. Since 2011, when the relocation to the new landmark complex was already underway, our team has been well prepared to take up the responsibility for the operation and maintenance of various E&M, air-conditioning, building services and electronic systems in the buildings on the site, overcoming technical hurdles arising from the tight construction schedule.

Key systems at the new Tamar complex include a sophisticated High Voltage and Low Voltage power distribution system, a central chiller plant with capacity over 7,000 kW, an automatic refuse collection system, a lift and escalator system, an electronic voting system, a simultaneous interpretation system, a TV production system and a video wall and conference system. These systems play an essential role in facilitating LCC proceedings and CGO business, in particular for meetings and activities in the Council Chamber and the CGO conference hall and auditorium. Some systems, such as the automatic refuse collection system, are also the first of its kind to be deployed at a government office building in Hong Kong, posing technical challenges in operation and maintenance work.

The LCC and CGO are highly visible in Hong Kong's public life. The requirements for reliable systems such as those for power and air-conditioning supply, lighting, voting, TV production and video display are vital tools to ensure the efficiency and transparency of a modern legislature. When major or controversial issues arise, both venues may operate round the clock, demanding the unflinching performance of the systems.

添馬的中央冷氣系統由本署負責操作及維修。  
The central air-conditioning system at Tamar, operated and maintained by EMSD.

Our team is aware of the great responsibilities vested in them. To ensure that operation and maintenance services could commence in a timely and professional manner, we put together a specialist onsite team in 2011 to assist the various client departments in testing and commissioning their systems. This effort paved the way for our continuing provision of effective operation and maintenance services to Tamar in the long run.

Looking ahead, our dedicated team will continue strive to provide reliable and quality services to meet the needs and expectations of all those who work in and visit the Tamar complex and the wider Hong Kong public.



本署電子督察穩守崗位，確保添馬的電子系統運作穩妥可靠。  
Our electronics inspector stays on guard, ensuring the reliable and efficient operation of electronic systems at Tamar.

香

港國際機場自1998年啟用以來，機電工程署全力為機場管理局（機管局）提供重要的機電維修保養服務，確保香港國際機場的運作暢順，成為世界上最優秀和最繁忙的機場之一，引為香港的驕傲。

繼2012年3月贏得機管局的空氣調節系統維修合約，本署的機場團隊最近再度獲機管局批出三項重要的機場基礎設施維修合約：包括跑道燈系統、行李處理系統和污水處理廠。這批合約在2012年年底生效，總值約港幣1.9億元。

獲得這幾項重大維修合約，再次確認了我們機場工程分部團隊的優質和可靠服務，更突顯我們的價格在競爭激烈的市場上極具競爭力。

合約簽署儀式已於2012年12月中旬舉行，出席者包括機管局的高級管理層。它標誌着機管局與機電工程署長期伙伴關係踏進一個新里程，我們將繼續秉承「以客為本」和「優質服務」的精神，為香港市民和訪港旅客提供無可比擬的機場體驗。

Ever since the Hong Kong International Airport (HKIA) opened in 1998, EMSD has helped ensure its smooth operation by providing vital electrical and mechanical maintenance services to the Airport Authority (AA). The HKIA is one of the best and busiest airports in the world and the pride of Hong Kong.

Further to winning air-conditioning system



本署繼續為香港國際機場提供重要的機場系統維修保養服務：我們的團隊巡視污水處理廠（左）、檢測行李處理系統（中）及機場跑道燈（右）。  
We continue to provide maintenance services for critical airport systems at HKIA: our team members inspect the wastewater treatment plant (left), test the baggage handling system (middle), and airfield ground lighting (right).



機管局工程及維修總經理梁永基先生（前排左）、機電工程署總工程師/機場及車輛工程彭耀雄先生（前排右）、機電工程署副署長/營運服務胡建明先生（後排右三）、機電工程署助理署長/1張丙權先生（後排右二），和機管局及機電工程署其他管理層代表一同出席於2012年12月舉行的合約簽署儀式。  
Mr. Ricky Leung, AA General Manager of Technical Services (seated left), Mr. Pang Yiu-hung, Eric, EMSD Chief Engineer/Airport and Vehicle Engineering (seated right), Mr. Woo Kin-ming, EMSD Deputy Director/Trading Services (3rd from right, back row), Mr. Cheung Ping-kuen, EMSD Assistant Director/1 (2nd from right, back row) and other senior AA and EMSD representatives attended the contract signing ceremony in December 2012.

## 奪得機場重要合約 —

突顯質素與競爭力

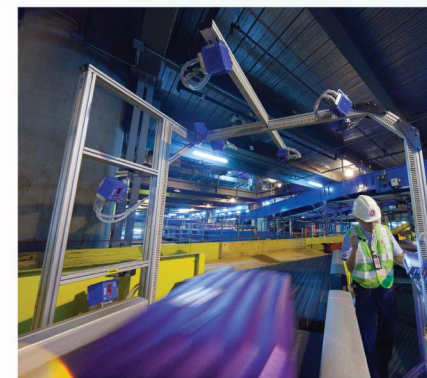
## Major Airport Contract Wins — Highlight Quality and Competitiveness

maintenance contracts from AA in March 2012, our airport team has now secured three more AA maintenance contracts for critical airport infrastructure: airfield ground lighting, baggage handling system and wastewater treatment plant. Commencing in late 2012, these contracts have a total value of about HK\$190 million.

Winning of these contracts has reconfirmed the quality and reliability of our airport team's services, as well as our price

competitiveness in a highly contested market.

The contract signing ceremony, well attended by senior AA managers, was held in mid-December 2012. It marked another milestone in the long-standing partnership between AA and EMSD. We shall continue to deliver customer-oriented and high-quality services for the public and visitors to Hong Kong, giving them an unparalleled airport experience.



# 11條政府行車隧道應用 數碼聲音廣播 Digital Audio Broadcasting Implemented at 11 Road Tunnels

**數**碼聲音廣播這項尖端廣播技術於2011年8月引入本港。為確保道路使用者可以享用無間斷的數碼聲音廣播服務，運輸署委託機電工程署在本港11條政府隧道安裝數碼聲音頻道轉播系統。

工程完成後，駕車人士即使在隧道內，也可透過先進的數碼聲音廣播系統享用無間斷的電台廣播服務。這套轉播系統並具備話音插播功能，可在出現緊急情況時，於數碼廣播節目中插播須向駕車人士發布的實時交通及安全資訊。

本署的工程策劃團隊已完成項目的第一期工程，4條交通流量最高的隧道，即將軍澳隧道、獅子山隧道、香港仔隧道和海底隧道均已安裝數碼聲音廣播系統。第一期工程於2012年1月展開，並提前於2012年12月完成。第二期工程涵蓋餘下的7條隧道，包括城門隧道、啟德隧道、長青隧道、大圍隧道、沙田嶺隧道、尖山隧道和南灣隧道，將於2014年2月完成。

與模擬廣播相比，數碼聲音廣播音質更佳，接收更穩定，除可提供更多節目頻道外，亦可傳送附帶資料和圖像。



本署電子督察對數碼聲音廣播設備進行詳盡檢查。DAB equipment was thoroughly tested by our electronics inspector.



本署電子督察在第一期工程的每條隧道內量度數碼聲音廣播訊號。  
Our electronics inspector measured DAB signals inside each tunnel of Phase I of the project.

Digital Audio Broadcasting (DAB), an advanced broadcasting technology, was introduced to Hong Kong in August 2011. To ensure that road users will be able to enjoy uninterrupted DAB services, the Transport Department has entrusted EMSD to install DAB re-broadcasting systems at 11 government tunnels in Hong Kong.

Once completed, the pioneering DAB



數碼聲音廣播系統控制台顯示各條數碼聲音廣播頻道的情况，並可在發生緊急情況時插播話音信息。  
The DAB control console shows an overview of the DAB channels and allows for emergency voice break-in messages.

systems will provide seamless radio services to motorists inside tunnels and allow voice break-in messages to be broadcast through DAB programme channels in emergency cases when real-time traffic and safety information needs to be conveyed.

Our project team has already successfully completed Phase I of the project, in which DAB systems were installed at the four tunnels with the highest traffic volume, namely Tseung Kwan O Tunnel, Lion Rock Tunnel, Aberdeen Tunnel and Cross Harbour Tunnel. Phase II of the project began in January 2012 and was completed in December 2012, ahead of schedule. Phase II, which covers the remaining seven tunnels, including Shing Mun Tunnels, Kai Tak Tunnel, Cheung Tsing Tunnel, Tai Wai Tunnel, Sha Tin Heights Tunnel, Eagle's Nest Tunnel and Nam Wan Tunnel, will also be completed in February 2014.

Compared with analogue radio services, DAB services offer better sound quality, more stable reception, more programme channels and the capacity to transmit ancillary data and images.

## 「沙士」後十年：我們更堅強、準備更充分 Ten Years after SARS: Stronger and Well Prepared

**「嚴**重急性呼吸系統綜合症」（沙士）在2003年3月爆發，觸動了每個香港人的心靈和生活。瞬間十年，回望過去，機電工程署對每位員工面對挑戰時作出的努力，仍深感驕傲。同事在整個疫症爆發期間，表現了強烈的責任感、靈活性和靈敏的反應，贏得了客戶和社會各界的讚賞。

疫症爆發期間，機電工程署與各大醫院攜手合作，維持緊密的伙伴關係，共同對抗「沙士」。我們有三位同事在醫院工作時不幸染病，在同事及上司的支持與鼓勵下，他們走出陰霾，經治療後已返回工作崗位。對於他們當時所作的貢獻，我們深表感謝。

在那段艱難的抗疫時期，我們在眾多任務中，最重要的就是提升醫院管理局（醫管局）的防護設施。我們的團隊無懼感染「沙士」的危險，士氣高昂，勇敢向前。駐院員工勤奮地工作，用心加強醫院病房的通風設施；而且，我們替醫院內的「沙士」病房安裝負氣壓系統，防止病毒擴散，污染空氣，此舉不僅保障了市民大眾的健康，還為醫院內每位緊守崗位的醫護人員加強保護。在「沙士」爆發初期，這些防護措施大部分都在短短的一個半月內完成。

此外，機電工程署還為邊境檢查站採購和安裝了體溫探測儀；蒐集空氣樣本，協助調查疫症在淘大花園及高威閣爆發的原因；又加強檢查和清洗客戶場地的供暖、通風和空調系統，以及政府車輛，包括救護車的冷氣喉管。

雖然「沙士」已遠去十年，我們仍時刻保持警覺。在2007年啟用、位於瑪嘉烈醫院的全港首間傳染病中心，我們一直受醫管局委託，為該中心負責操作和維修

保養工作。當人類豬型流感於2009年6月襲港時，我們亦協助醫管局在指定流感診所加裝通風設施，檢查空氣淨化器，為醫管局轄下各家大醫院校正紅外線溫度計，並提供其他備用的緊急應變支援。

十年前，我們的同事展示了無畏的精神和熱誠的服務態度，這種精神長存至今。此刻，我們憑藉過去寶貴的經驗，更加準備就緒，迎接新的挑戰。

The outbreak of Severe Acute Respiratory Syndrome (SARS) in March 2003 touched the lives of everyone in Hong Kong. A decade on from the epidemic, we look back with pride at how EMSD staff rose to the challenge. Staff demonstrated a strong sense of responsibility as well as flexibility and responsiveness throughout the outbreak, winning the appreciation of clients and the wider community.

During the outbreak, EMSD worked hand in hand with hospitals as close partners to combat SARS. Three of our colleagues unfortunately contracted SARS while working in hospitals. With the encouragement and support from colleagues and their supervisors, they rode out the storm and returned to their duties after medical treatment. We had deep appreciation to their contributions during the time.

Among the many tasks we undertook during that difficult time, the most significant involved upgrading Hospital Authority (HA) facilities. Undaunted by the risk of SARS



本署技術員與客戶在東區尤德夫人那打素醫院的「沙士」病房內測試通風效能。  
Our technician working with the client to test the ventilation effect in a SARS ward at the Pamela Youde Nethersole Eastern Hospital.



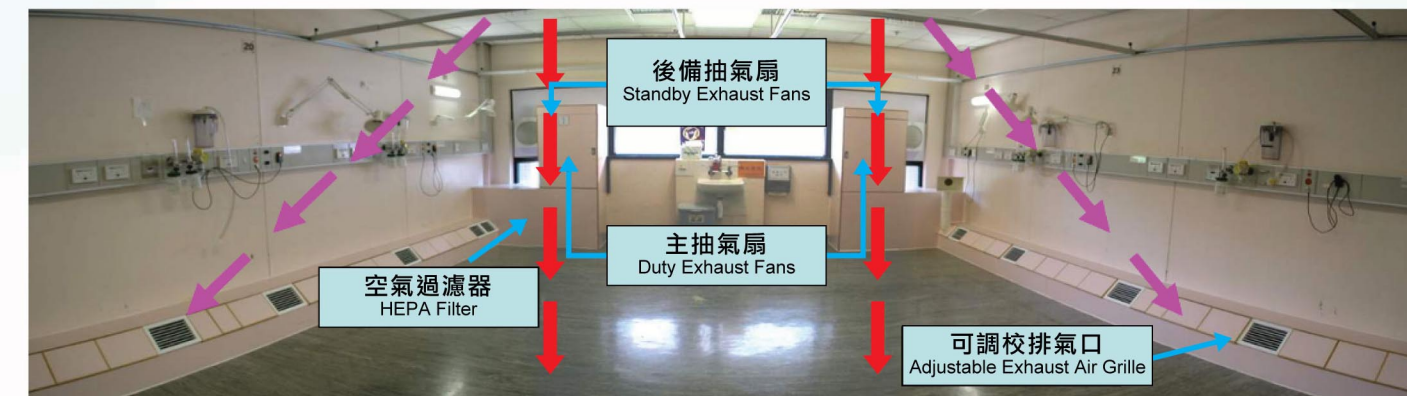
疫症爆發期間，我們的員工穿上保護裝備，為威爾斯親王醫院天台的空調系統更換高效微粒空氣過濾器。該系統為抵抗「沙士」而加建。  
During the SARS outbreak, our staff in protective gear replacing a High Efficiency Particulate Air (HEPA) Filter in an air-conditioning system, added on the rooftop of Prince of Wales Hospital to combat SARS.

infection, our team kept their morale high. Our resident staff worked diligently to enhance ward ventilation facilities in hospitals. At the same time, we also implemented negative pressure systems in SARS wards at hospitals to prevent the SARS virus from contaminating the air, protecting not only the general public but also the dedicated hospital healthcare staff. All these were completed within a short period of one and a half months during the early stage of the SARS outbreak.

EMSD also procured and installed infrared thermal detectors at border control points; collected air samples to aid the investigation of the outbreaks at Amoy Gardens and Koway Court; and stepped up the inspection and cleaning of heating, ventilation and air-conditioning systems at client venues and of air-conditioning pipes in government vehicles, including ambulances.

Though SARS is now behind us, we continue to be vigilant. We were entrusted by HA to operate and maintain Hong Kong's first Infectious Disease Centre, which opened in the Princess Margaret Hospital in 2007. When the human swine flu pandemic hit Hong Kong in June 2009, we assisted HA in ventilating its designated flu clinics and checking air purifiers, calibrating the infrared thermometers used at major hospitals as well as providing other stand-by contingency support.

Ten years ago our colleagues demonstrated the spirit of service with great courage and dedication. This spirit has lived on. Drawing on our valuable experience, we are now even better prepared to take on new challenges.



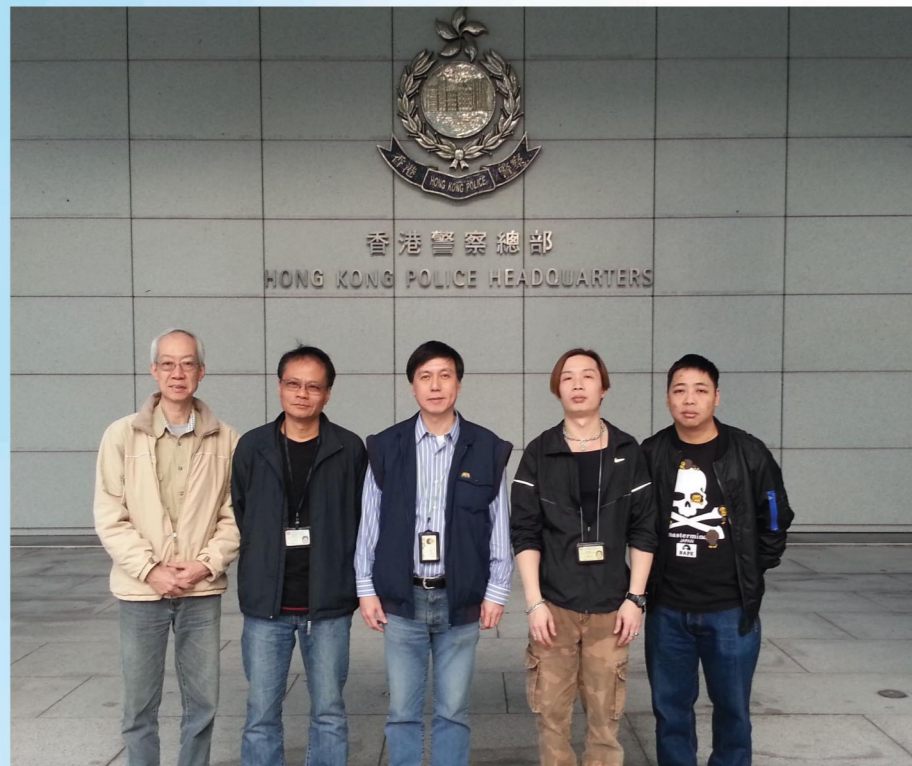
安裝在「沙士」病房的通風系統一直沿用至今。  
Ventilation system in the SARS ward, still in use today.

# 實施員工建議

提升服務效率

## Staff Suggestions

Boost Service Efficiency



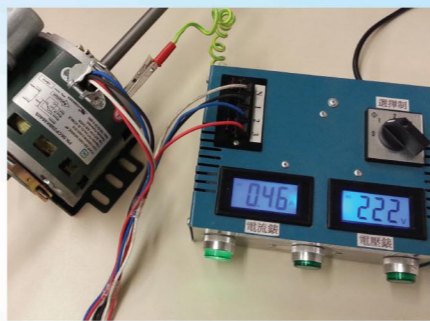
檢測裝置由我們致力提供優質服務的工作團隊研發。  
The tester was developed by our dedicated working team.

## 機

電工程署最近實施兩項透過員工建議書計劃提出的建議，大大提高對主要客戶的服務質素。這兩份得獎建議書不但展示了機電工程署員工的卓越才能和創新精神，也彰顯了員工建議書計劃的成效。該計劃在1993年成立，目的是推動員工提出構思和建議，以提升我們的服務效率。

香港警察總部大樓有超過3,000部盤管風機，這些風機所裝設的電動機達4,000多個。逐一就每個電動機重複進行速度測試，不但冗長費時，更有潛在危險，但有關測試工作卻是進行預防性保養及緊急維修時必不可少的。

就此，我們的空氣調節督察率領員工，建議簡化測試程序。同事利用循環再造的工場物料研製了一部檢測裝置，讓工作人員只需進行一個程序，即可對電動機的不同段速作出測試。新的檢測裝置把每個電動機總共所需的測試時間，由15分鐘縮減至5分鐘，大大節省時間和



為香港警察總部研發的檢測裝置，讓員工透過一個程序即可測試電動機的不同段速。  
The tester developed for use at the Hong Kong Police headquarters evaluates different fan motor speeds via a single test procedure.

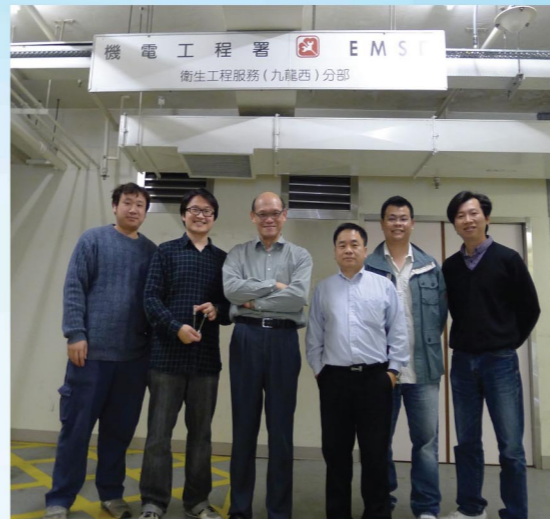
Two proposals made via the Staff Suggestion Scheme have been recently implemented to improve our performance for key clients. These winning proposals demonstrate the innovation of our talented staff and the effectiveness of the Staff Suggestion Scheme, which was established in 1993 to motivate staff to share their ideas on how we can enhance our service efficiency.

The Hong Kong Police Force headquarters building has more than 3,000 fan coil units containing some 4,000 fan motors. Repeated speed testing of each fan motor is tedious, time-consuming and potentially dangerous, but is necessary as part of preventive maintenance and emergency repairs.

Staff led by air-conditioning inspector suggested simplifying the testing procedure. Our colleagues devised a tester, built from recycled workshop materials, to evaluate different fan motor speeds via a single procedure. This new tester reduces total testing time from 15 minutes to 5 minutes per fan motor, saving substantial time and staff cost. The tester is inexpensive to make and the simplified procedure is also much safer.

In the second winning proposal, a team of colleagues led by senior inspector developed a simple and cost-effective way to ensure effective operation of an essential system in a hospital. Princess Margaret Hospital uses a pneumatic tube transport system to deliver patient blood samples, medicines and documents, etc. to eight working zones and more than 65 workstations throughout the hospital complex. This essential system operates non-stop 24 hours a day. Frequent usage has caused the system's workstation-mounted chassis to loosen easily and also led to air leakage and the dislocation of some workstation gates.

Staff proposed a simple and cost-effective solution to this problem. The team developed a way to use stainless steel rods of suitable length and thickness to fix and support the chassis. This simple but effective upgrade can even be carried out while the system is operating, avoiding disruption to normal hospital operations and the need to replace the costly workstations. It is highly appreciated by hospital staff.



我們卓越的維修保養團隊為瑪嘉烈醫院提出簡單而合乎經濟效益的改善方案。  
Our talented maintenance team proposed a simple and cost-effective solution for Princess Margaret Hospital.



瑪嘉烈醫院使用的氣動輸送系統（左圖）。利用不銹鋼絲桿固定和支撐站台底盤（中圖及右圖）。  
The pneumatic tube transport system (left) used at Princess Margaret Hospital and the application of stainless steel rods to fix and support the chassis (middle and right).

## 創新科技嘉年華2012

展示邊界圍網保安系統

## InnoCarnival 2012

Showcases Border Fence Security System

由創新科技署舉辦的「創新科技嘉年華2012」於去年11月3日至11日假香港科學園舉行，機電工程署參與其中並以互動展示形式，吸引了大批市民的興趣。是次活動有超過20萬名市民到場參觀並透過展覽認識更多日常生活中的創新科技。

本署參展攤位展示了香港邊境採用的先進保安和進出管制技術。我們透過一套結合震動感應電纜、熱能影像系統、閉路電視技術的模擬邊界圍網保安裝置，讓參觀者透過互動模擬系統，了解這套系統如何偵測和辨識入侵者。攤位內亦設置了一些採用影像分析和生物辨識技術的先進進出管制設備，例如指紋和臉部辨識系統，讓市民親身體驗。我們的團隊積極向市民講解及示範，並提供關於邊界保安技術原理和應用的資訊。

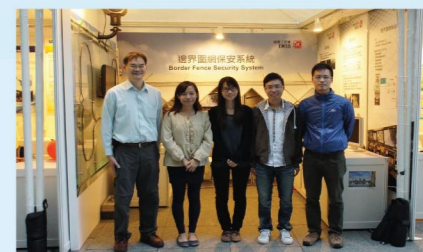


本署攤位吸引了大批市民參觀。  
InnoCarnival visitors flocked to our booth.

The EMSD booth showcased the application of up-to-date technologies for security and access control at Hong Kong border. Visitors could interact with a border fence security model to realize how vibration sensor cables, thermal imaging system and CCTV



本署攤位內的模擬邊界圍網保安系統，展示多個科技如何一起運作，保障邊界的安全。  
A model of the border fence security system created for our booth showed how a range of technologies working together to ensure border security.



我們專業的工程人員努力不懈，確保活動順利舉行。  
Our professional and technical colleagues worked hard behind the scenes to ensure the success of the event.

technology are integrated to detect and identify intruders. State-of-the-art access control equipment using video analytics and biometrics technologies such as fingerprint and facial recognition systems were also set up for visitors to have first-hand experience on their application. The fascinating demonstrations were explained by an enthusiastic team of EMSD staff who provided visitors with information about the theory and application of border security technologies.

# 活動花絮：「機電安全嘉年華」及《車輛維修工場約章》計劃啟動典禮

## Events Highlight: E&M Safety Carnival and Vehicle Maintenance Workshops Charter Launch

**機**電工程署最近舉辦的兩項活動不但得到市民廣泛支持，同時也吸引到業界踴躍參與，彰顯了我們在公眾教育方面的重要角色。

「機電安全嘉年華2012」於2012年11月17日和18日在葵涌運動場舉行，共有約12,000名市民入場參加。「機電安全嘉年華2012」是「機電安全香港通2012」的壓軸項目，透過攤位遊戲、展覽、歌星表演和話劇等精彩活動，提升市民對機電安全和能源效益的認識。嘉年華由機電工程署與14間本地機構攜手合辦，並由環境局常任秘書長／環境保護署署長王倩儀女士主持開幕儀式。

「機電安全香港通」自2001年起舉辦，至今已成為全港最大規模的公眾教育活動之一。2012的「機電安全香港通」，為學校、公眾和協辦機構舉辦了一系列與機電安全和能源效益相關的活動和比賽。

2013年1月10日，車輛維修技術諮詢委員會和機電工程署推出《車輛維修工場約章》計劃，以提高本港車輛維修業的服務質素。約章計劃的啟動典禮在機電工程署總部大樓舉行，由運輸及房屋局常任秘書長（運輸）黎以德先生作主禮嘉賓。



運輸及房屋局常任秘書長（運輸）黎以德先生（後排左起第9位）與機電工程署署長陳帆先生（後排左起第10位）、車輛維修技術諮詢委員會成員及其他機電工程署成員一起出席《車輛維修工場約章》計劃啟動典禮。Mr. Joseph Lai, Permanent Secretary for Transport and Housing (Transport) (9th from left, back row) joins Mr. Chan Fan, Director of Electrical and Mechanical Services (10th from left, back row), other members of the Vehicle Maintenance Technical Advisory Committee and EMSD to attend the Vehicle Maintenance Workshops Charter Launching Ceremony.



「機電安全嘉年華2012」設有話劇表演，提升市民對機電安全和能源效益的認識。Drama performance help enhance public awareness of E&M safety and energy efficiency at the E&M Safety Carnival 2012.

《車輛維修工場約章》計劃是一項自願計劃。維修工場簽署約章，即表示承諾遵守車輛維修工場實務指引，提供不低於指引所要求的服務質素。指引訂明的車輛維修服務要求，涵蓋技術、環保、安全、員工、培訓、服務和文件記錄等方面。

工場負責人簽署約章後，可在工場內展示約章的標誌，表示服務質素有保證。這些工場的資料亦會上載機電工程署的網站，方便車主參考，在選定維修工場時作出明智選擇。預期約章計劃有助提高車輛安全和改善路邊空氣質素。至目前為止，已有超過120個維修工場簽署約章。

機電工程署會繼續向業界、車主和市民推廣約章計劃。

有關上述兩項活動的詳情，請瀏覽機電工程署網站[www.emsd.gov.hk](http://www.emsd.gov.hk)。



《車輛維修工場約章》的標誌醒目搶眼，是優質服務的標記。The eye-catching Vehicle Maintenance Workshops Charter logo is a sign of service quality.

Underscoring our important educational role, two recent EMSD events have attracted extensive community support and trade participation.

The E&M Safety Carnival 2012 welcomed about 12,000 visitors to Kwai Chung Sports Ground where it was held on 17 and 18 November, 2012. A highlight of the 2012 E&M Safety Campaign, the Carnival again helped raise public awareness of E&M safety and energy efficiency with a lively mix of game booths, exhibitions and canto-pop and drama performances. Jointly organised by EMSD and 14 local organisations, the Carnival was officiated by Ms Anissa Wong, Permanent Secretary for the Environment / Director of Environmental Protection.

Since its debut in 2001, the E&M Safety Campaign has grown to become one of the largest public education activities in Hong Kong. The 2012 Campaign offered a host of E&M safety and energy efficiency related activities and competitions throughout the year for schools, the public and participating organisations.

On 10 January, 2013, the Vehicle Maintenance Technical Advisory Committee and EMSD launched the Vehicle Maintenance Workshops Charter to enhance the service quality of the vehicle maintenance trade in Hong Kong. Mr. Joseph Lai, Permanent Secretary for Transport and Housing (Transport) officiated the Charter at EMSD Headquarters.



為期兩天的「機電安全嘉年華」在戶外舉行，市民不分老幼，盡情參與各項活動，樂在其中。Visitors of all ages joined in the fun at the two-day, outdoor E&M Safety Carnival.



環境局常任秘書長／環境保護署署長王倩儀女士（後排左起第8位）、機電工程署署長陳帆先生（後排左起第9位）及協辦機構代表為「機電安全嘉年華2012」主持開幕儀式。Ms Anissa Wong, Permanent Secretary for the Environment / Director of Environmental Protection (8th from left, back row), Mr. Chan Fan, Director of Electrical and Mechanical Services (9th from left, back row) and representatives of participating organisations open the E&M Safety Carnival 2012.

The Charter is a voluntary scheme. By subscribing to the Charter, vehicle maintenance workshops pledge to abide by the *Practice Guidelines for Vehicle Maintenance Workshops* and to operate their workshops at a level of quality not lower than that specified. The *Guidelines* stipulate service requirements in technical, environmental, safety, staffing, training, service and documentation aspects of vehicle maintenance.

Signatory workshops have the right to display the Charter logo, a symbol of service quality. Their contact details will also be available on the EMSD website to

help car owners make informed choices. The Charter scheme is expected to help enhance vehicle safety and improving roadside air quality. So far, the Charter has attracted over 120 workshops to sign up.

EMSD will continue to promote the Charter to the trade, car owners and the public.

Details of both events are available on the EMSD website [www.emsd.gov.hk](http://www.emsd.gov.hk).



# 比賽奪佳績 畢業學徒喜獲鼓舞

## EMSD Apprentice Graduate Inspires with Auto Competition Win



在「2012年度最佳汽車學徒比賽」中獲取亞軍的黃子健先生，接受機電工程署署長陳帆先生頒發見習旅遊大獎。  
Mr. Wong Chi-kin, first runner-up in the 2012 Best Apprentice Competition, received the study tour award from Mr. Chan Fan, Director of Electrical and Mechanical Services.

**在**職業訓練局汽車業訓練委員會主辦的「2012年度最佳汽車學徒比賽」中，本署汽車技工畢業學徒黃子健先生勇奪亞軍。黃子健先生名列賽事頭六名頂級表現的學員，獲得現金獎，以及見習旅遊大獎，前往英國遊學。

比賽今年已是第27屆，一直以來志在鼓勵年輕人投身汽車業、提升專業水平，並提升僱主對正規培訓的關注和重視。總決賽於2012年11月1日假職業訓練局葵涌大樓舉行，十名出線的學徒施展渾身解數，於30分鐘時限內檢修一輛汽車。

機電工程署署長陳帆先生於當日的頒獎典禮上致辭時表示，車輛的安全有賴妥善的維修保養及經驗豐富的維修人員。事實上，機電工程署已透過「車輛維修技工自願註冊計劃」，提升車輛維修業的服務水平及專業地位，計劃自2007年推行至今，已有超過一萬名汽車技工成功註冊，並有約七千名技工獲得續期註冊。

黃子健先生於上年8月完成了機電工程署學徒訓練計劃（現名為技術員訓練計劃），現職機電工程署車輛維修站的技術員，在此衷心恭賀他獲獎！

**E**MSD vehicle craft apprentice graduate Mr. Wong Chi-kin has been named first runner-up in the 2012 Best Apprentice Competition organised by the Vocational Training Council (VTC) Automobile Training Board. Mr. Wong was among six top performers who won cash prizes and a study tour to the UK.

Now in its 27th year, the Competition continues to encourage young people to join the auto industry, to enhance professional standards, and to raise employers' awareness of the importance of proper training. The final round of the contest was held on 1 November, 2012 at the VTC Kwai Chung Complex where 10 finalists demonstrated their skills by repairing a vehicle within a 30-minute time limit.

Speaking at the prize presentation ceremony held on the same day, the Director of Electrical and Mechanical Services, Mr. Chan Fan, noted that proper maintenance by experienced mechanics was crucial to vehicle safety. Indeed, EMSD had also worked towards enhancing the service levels and professional status of the vehicle maintenance industry through the Voluntary Registration Scheme for Vehicle Mechanics, in which more than 10,000 vehicle mechanics have successfully registered since 2007, with some 7,000 registration renewals.

Mr. Wong, who graduated from the EMSD Apprentice Training Scheme (currently known as Technician Training Scheme) in August 2012, now works as a technician in one of EMSD's vehicle maintenance depots. Our congratulations to Mr. Wong!



本署汽車技工畢業學徒黃子健先生參賽時的情況。  
Our vehicle craft apprentice graduate Mr. Wong Chi-kin taking part in the competition.

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，歡迎以電郵 (bssd@emsd.gov.hk) 或傳真 (傳真號碼：2882 1574) 隨時聯絡我們，讓我們不斷改進。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。

Your opinion is very important to our continuous improvement in VoiceLink!

If you have any comments or feedback for the newsletter, please do not hesitate to let us know anytime.

Feel free to e-mail or fax us at bssd@emsd.gov.hk or 2882 1574. In case you wish to remove your name from our newsletter mailing list, or to update your information in the future, please e-mail to bssd@emsd.gov.hk.

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