

# 獲香港工程師學會創意大獎

## Creativity Wins Innovation Awards from the Hong Kong Institution of Engineers

**機**電署針對客戶和社會的需要，應用創新的工程知識，並與大學團隊合作研發最新技術，以期提升公共服務質素，改善市民生活。今年3月，機電署聯同香港科技大學研發的智能發燒偵測系統榮獲「香港工程師學會青年會員創意獎2019（組別 I – 專業發明）大獎」，而機電署團隊的「智能眼碌碌」空調控制系統則在另一個組別（組別 II – 創新應用）贏得優異獎。

智能發燒偵測系統集紅外線熱感成像、人工智能和自動化操作技術於一身，實時自動檢測在既定面積範圍內人體溫度的分布，更可讓職員獲得實時數據分析，追蹤疑似發燒人士。此系統有助提升衛生署在邊境口岸執行健康檢查工作的效率，並減少對人流的阻礙。

智能發燒偵測系統的原型設計已經完成，並獲得創新及科技局的科技統籌（整體撥款）計劃資助，稍後會在選定的出入境管制站進行測試。

獲得優異獎的「智能眼碌碌」空調控制系統適合在人流變化大的場館使用，例如大型展覽場館。該系統可透過影像分析技術，實時收集人流數據，以及根據人流的前後變化而自動調校空調風速，讓市民在更舒適的環境活動。該系統亦可透過人數展示板列出場館各區域的人數，當某區域的人羣達到飽和點時，市民可先轉往其他區域參觀，以收人流管制之效，長遠更可全面提升空調系統的能源效益。



機電署的「智能眼碌碌」空調控制系統設計獲頒「香港工程師學會青年會員創意獎2019（組別 II – 創新應用）優異獎」。  
The design of the EMSD's NeuroSmart Eyes Air-conditioning Control System wins a merit award of the HKIE Innovation Awards for Young Members 2019 (Category II – An Innovative Application of Engineering Theories).



頒獎禮後，機電署署長薛永恒先生與榮獲「香港工程師學會青年會員創意獎2019（組別 I – 專業發明）大獎」的機電署同事合照。  
Pictured are Mr. Alfred Sit, Director of Electrical and Mechanical Services, with the EMSD colleagues, winners of the grand prize of the HKIE Innovation Awards for Young Members 2019 (Category I – An Invention), after the award presentation ceremony.

With a view to enhancing the quality of public services and improving people's lives, the EMSD applies innovative engineering knowledge to meet the needs of clients and the community, and works with university teams to develop state-of-the-art technologies. In March this year, the Smart Fever Screening System jointly developed by the EMSD and the Hong Kong University of Science and Technology (HKUST) was awarded a grand prize of the Hong Kong Institution of Engineers (HKIE) Innovation Awards for Young Members 2019 (Category I – An Invention). Meanwhile, our NeuroSmart Eyes Air-conditioning Control System also won a merit award in another category (Category II – An Innovative Application of Engineering Theories).

Combining infrared thermal imaging, artificial intelligence and automated operation, the Smart Fever Screening System automatically detects in real time the body temperature profile of people in an area of a given size. It also enables staff to obtain real-time data analysis for tracking febrile suspects, thus enhancing the operation efficiency of the Department of Health for health screening at border control points and minimising obstruction to people flow.

機電署與香港科技大學共同研發的智能發燒偵測系統可實時傳送數據分析，讓工作人員更快速和準確地追蹤疑似發燒人士，以便作進一步檢查。  
The Smart Fever Screening System jointly developed by the EMSD and HKUST can transmit data analysis in real time to facilitate prompt and accurate tracking of febrile suspects for further examination.

The prototype of the Smart Fever Screening System has been completed and funding from the Innovation and Technology Bureau's TechConnect (Block Vote) has been secured for trial at selected border control points at a later stage.

The merit award winner, the NeuroSmart Eyes Air-conditioning Control System, is suitable for use at such venues as large exhibition halls with dynamic changes in people flow. With the video analytics technology, the system can collect in real time the data on people flow and adjust the air flow rate according to changes in the crowd density, thus providing a more comfortable environment to the public. Through a display board, the system can also show the level of crowdedness in a specific area. If it reaches a saturation point at a certain exhibition area, visitors can move to other exhibition areas, thus achieving effective control of people traffic. In the long run, it can even enhance energy efficiency of the air-conditioning system.

