



Smart Over-height Vehicle Detection System

智能超高車輛偵測系統



《中九龍幹線通訊》電子版本
 Electronic version of "Central Kowloon Route Newsletter"
 為響應環保，《中九龍幹線通訊》現正推行以電子版本取代印刷本。歡迎透過流動裝置掃描以下二維碼訂閱電子通訊。
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智能超高車輛偵測系統

Smart Over-height Vehicle Detection System



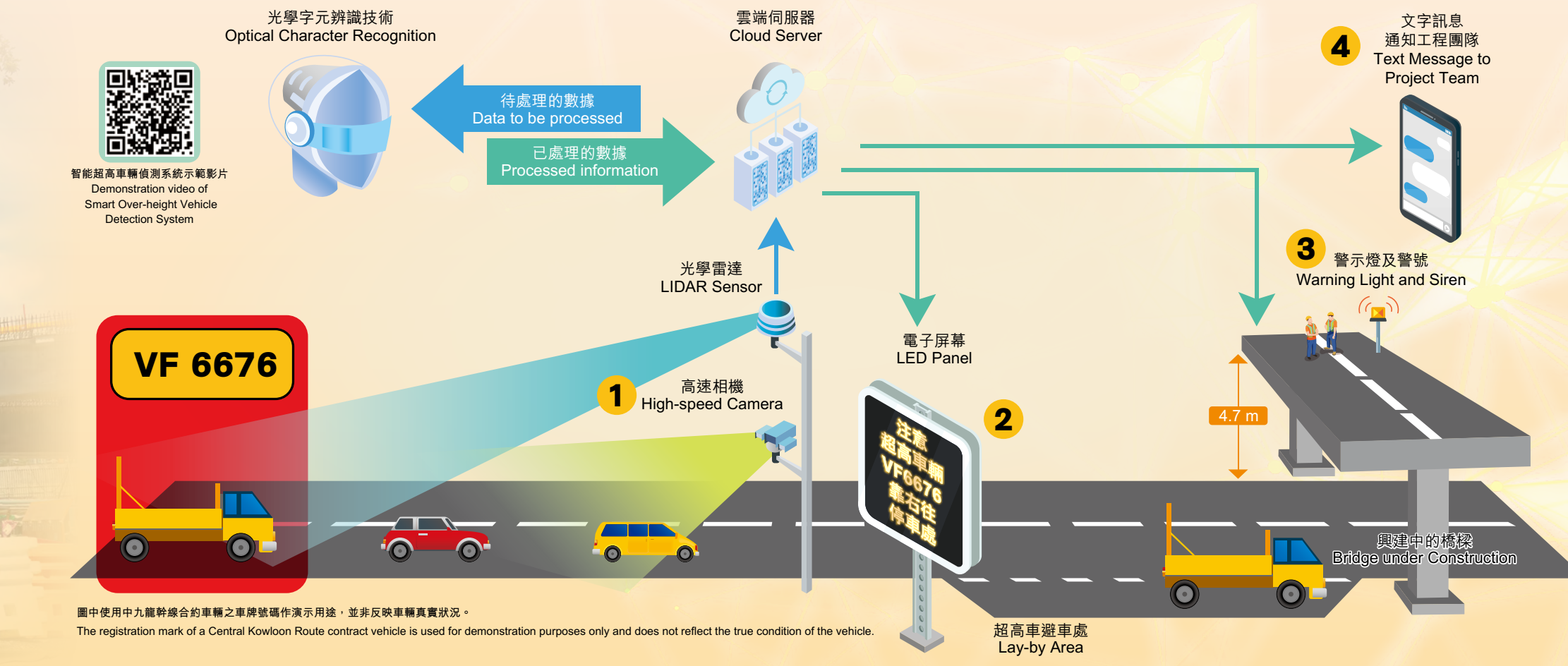
當過高的車輛意外通過建造中的橋樑時，可能會對臨時支撐和工作平台造成損壞，導致嚴重後果，例如道路損壞、工地設施及車輛損毀，甚至可能引發人命傷亡。這些意外也可能導致道路需要封閉和嚴重交通擁堵。使用智能超高車輛偵測系統可以有效減少因封路而對交通的影響。
 When over-height vehicles accidentally pass under a bridge under construction, they may cause damage to the temporary structure and working platform, leading to serious consequences such as damage to road, construction facilities and vehicles, and even possible casualties. Such accidents can also lead to road closures and significant traffic congestion. The implementation of Smart Over-height Vehicle Detection System can effectively reduce the traffic impact of road closures.

中九龍幹線油麻地西工程團隊成立的一個專項小組，成功在香港研發了首套「智能超高車輛偵測系統」。這套系統採用先進技術，全天候偵測道路上的超高車輛。系統檢測到超高車輛後會於3秒內顯示包括車牌號碼在內的警告信息，以提醒駕駛者將超高車輛於天橋前的避車處停下，從而保障道路使用者和橋上工人的安全。油麻地西工程於2022年4月開始應用「智能超高車輛偵測系統」，系統在提前攔截超高車輛方面取得了非常成功的效果，使用後沒有發生超高車輛撞橋事故。這個系統亦推廣到中九龍幹線啟德東工程合約，以進一步提高工地安全。

The Central Kowloon Route Yau Ma Tei West project team established a task force and successfully developed the first "Smart Over-height Vehicle Detection System" (Smart OVDS) in Hong Kong. The system adopts advanced technology to detect over-height vehicles on the road round the clock. When an over-height vehicle is detected, the system will display a warning message within 3 seconds, including the vehicle's registration number, to alert the driver to move the over-height vehicle to the lay-by area in front of the bridge, ensuring the safety of both road users and workers on the bridge. The Yau Ma Tei West Contract implemented the Smart OVDS in April 2022. The system has been proven very successful in soft-stopping over-height vehicles and there has no bridge collision incidents. The system has also been extended to the Central Kowloon Route Kai Tak East Contract to further enhance site safety.



位於油麻地的光學雷達和高速相機正在掃描車輛高度和車牌號碼
 The LIDAR sensor and high-speed camera at Yau Ma Tei are scanning the vehicle height and the registration mark



圖中使用中九龍幹線合約車輛之車牌號碼作演示用途，並非反映車輛真實狀況。
 The registration mark of a Central Kowloon Route contract vehicle is used for demonstration purposes only and does not reflect the true condition of the vehicle.

- 系統設有光學雷達及高速相機，能準確偵測駛經車輛的高度，並利用人工智能即時分析車牌號碼。
The system is equipped with LIDAR sensor and high-speed camera which can precisely detect the height of passing vehicles and leverages artificial intelligence (AI) to identify vehicle registration marks in real time.
- 一旦發現超高車輛，路旁電子屏幕會顯示警告訊息及超高車輛牌號碼，提醒司機將超高車輛駛至避車處。
Upon detecting an over-height vehicle, a warning message which includes the over-height vehicle registration mark, is displayed on the LED panel at the roadside to alert the driver to move the over-height vehicle to the lay-by area.
- 同時，施工範圍旁邊的警示燈會亮起及發出警號，提醒橋上工人盡快疏散。
Warning lights and sirens positioned at the works site are activated simultaneously to ensure swift evacuation of workers from the bridge.
- 雲端伺服器亦會即時發送訊息通知工程團隊協助超高車輛離開。
The cloud server also promptly sends a message to notify the project team to assist in the departure of over-height vehicles.



啟德東工程合約應用「智能超高車輛偵測系統」之路段
 Road section of the Kai Tak East Contract where Smart OVDS is applied

光學雷達和智能相機偵測車輛高度和車牌號碼
 LIDAR sensor and high-speed camera detect vehicle height and registration mark

注意
 超高車輛
 VF6676
 請勿靠近
 避車處
 電子屏幕顯示警告訊息及超高車輛牌號碼
 LED panel displays warning message and the over-height vehicle's registration mark

超高車輛避車處
 Lay-by area for the over-height vehicle



系統獲得知識產權署批予短期專利予香港特別行政區政府和服務供應商。
 The system has been granted a short-term patent to the Government of Hong Kong SAR and the service provider by the Intellectual Property Department.



工程團隊一直積極推廣「智能超高車輛偵測系統」在建造業的應用，旨在為所有工人創造更安全的工作環境。
 The project team actively promotes the application of Smart OVDS within the construction industry, aiming to create a safer working environment for all workers.



工程團隊憑「智能超高車輛偵測系統」榮獲 HKMA/HKT 環球創新獎 2022/23 創新機構獎——卓越獎（大型機構）。
 The project team was awarded the Innovation Organization Award — Excellence Award (Large Organizations) in the HKMA/HKT Global Innovation Award 2022/23 for the Smart OVDS.

工程進度 Works Progress

連翔道的連接橋橋面建造工程
Bridge deck construction of connection bridges at Lin Cheung Road

海泓道的園景平台結構建造工程
Structural works of landscaped deck at Hoi Wang Road

海泓道的通風坑道建造工程
Construction of ventilation adit at Hoi Wang Road

甘肅街的隔音罩擴建工程
Extension of noise enclosure at Kansu Street

近新碼頭街的馬頭角明挖回填隧道建造工程
Construction of Ma Tau Kok cut-and-cover tunnel near San Ma Tau Street

隧道襯砌工程
Construction of tunnel lining

馬頭角明挖回填隧道結構建造工程
Structural works of Ma Tau Kok cut-and-cover tunnel

近啟德跑道區的第二期海底隧道結構建造工程
Structural works of Stage 2 Underwater Tunnel near the Kai Tak runway

啟德低於地面道路的鋪設道路設施工程
Construction of road facilities of Kai Tak Depressed road

啟德西 Kai Tak West

啟德東 Kai Tak East

中段隧道 Central Tunnel

橫跨啟福道的行車天橋建造工程
Construction of vehicular bridges across Kai Fuk Road

橫跨啟德河的行車天橋建造工程
Construction of vehicular bridges across Kai Tak River

啟福道的地下行車道建造工程
Construction of underpass at Kai Fuk Road

油麻地西 Yau Ma Tei West

油麻地
Yau Ma Tei

油麻地東 Yau Ma Tei East

甘肅街的明挖回填隧道建造工程
Construction of Cut-and-Cover Tunnel at Kansu Street

加士居道天橋重置工程
Repositioning of Gascoigne Road Flyover

加士居道天橋的隔音罩組裝工程
Installation of Noise Enclosure at Gascoigne Road Flyover

佛光街的文田通風大樓結構工程
Structural works of Ho Man Tin Ventilation Building at Fat Kwong Street

承豐道的啟德通風大樓及行政大樓結構工程
Structural works of Kai Tak Ventilation Building and Administration Building at Shing Fung Road

油麻地交匯處的油麻地通風大樓結構工程
Structural works of Yau Ma Tei Ventilation Building at Yau Ma Tei Interchange

大樓及機電工程 Buildings, Electrical and Mechanical Works

矚目活動 (2024 年 1 月至 3 月) Event Highlights (January to March 2024)

龍年賀歲
Lunar New Year Greetings to Community

工程團隊探訪持份者，並派發揮春，送上賀年祝福。
The project team visited stakeholders and distributed Fai Chun to convey Lunar New Year greetings.

中九龍幹線 - 龍年揮毫迎新歲
Central Kowloon Route Fai Chun Writing Workshop for the Year of the Dragon

香港大學專業進修學院士力工程高級文憑學生參觀社區聯絡中心
HKU SPACE Higher Diploma Students in Geotechnical Engineering Visit to Community Liaison Centre

利是封回收重用大行動 2024
Red Packets Reuse & Recycle Program 2024

如對工程有任何疑問及意見，可透過以下方法聯絡我們
Should you have any enquiries or comments on the project, please contact us via the following channels

路政署 - 中九龍幹線
Highways Department
Central Kowloon Route Project

電話 Telephone : 2762 3601
電郵 E-mail : enquiry@ckr-hyd.hk
網址 Website : www.ckr-hyd.hk

馬頭角社區聯絡中心
Ma Tau Kok Community Liaison Centre

電話 Telephone : 3793 3493
電郵 E-mail : pro@ckr-ktw.com
地址 Address : 土瓜灣朗月街 12 號 (偉恆昌新邨偉景閣 H 座對面)
12 Long Yuet Street, To Kwa Wan (Opposite to Wei Chien Court, Block H, Wyler Gardens)

開放時間:
星期一至五 - 下午 1 時至下午 6 時
星期六 - 早上 9 時至下午 1 時
星期日及公眾假期 - 休息

Opening Hours:
Monday to Friday - 1:00p.m. — 6:00p.m.
Saturday - 9:00a.m. — 1:00p.m.
Sunday & Public Holidays - Closed

24 小時熱線電話 24-hour Hotline
Highways Department - Central Kowloon Route Project

油麻地東工程 Yau Ma Tei East	9129 2027	啟德東工程 Kai Tak East	6391 7037	中段隧道工程 Central Tunnel	6313 0900
油麻地西工程 Yau Ma Tei West	5331 5330	啟德西工程 Kai Tak West	7100 3993	大樓及機電工程 Buildings, Electrical and Mechanical Works	6012 3590

中九龍幹線通訊一意見表
CKR Newsletter Suggestion Form