

# 提供可靠行車資訊的智能交通系統 Reliable Intelligent Transportation Systems for Drivers

為香港主要路線提供準確實時的交通資訊

Provide accurate real-time traffic information on major routes in Hong Kong

此智能交通系統包含一種創新的算法，能夠整合三種交通數據，包括(1)從車輛自動識別檢測器中實時收集且經過濾的數據；(2)從視頻檢測器收集到的實時數據；以及(3)預先預測的行車時間，從而實時估算預選路線的平均行車時間和車速，並每兩分鐘更新一次。香港的行車時間顯示系統及行車速度屏系統已採用此整合算法，這些系統透過公路路牌顯示替代路線的行車時間及分段行車速度的顏色，協助駕駛者選擇合適路線，以避開交通擠塞的道路，同時協助運輸當局監察交通狀況，以便改善交通管理。



位於加士居道(東行線)近香港理工大學的行車時間顯示器  
The Journey Time Indicator over Gascoigne Road (eastbound) near The Hong Kong Polytechnic University

## 特色與優點

- 整合不同來源的交通數據，並按有限的數據估算當前交通狀況
- 估算的行車時間及速度與實際結果極為接近，準確率達 95%

## 應用

- 行車時間顯示系統 - 提供預選路線的實時行車時間估算。目前九龍區已安裝六組行車時間顯示器
- 行車速度屏系統 - 提供預選路線的實時行車時間和分段車速的顏色估算。現時有三組行車速度屏設於新界東，另兩組設於新界西

## 獎項

- 2015年香港公路學會高速公路與運輸卓越獎-嘉許狀(2015年12月)
- 傑出運輸項目獎 - 東亞運輸研究學會(2011年6月)



位於屯門公路近井財街的行車速度屏  
The Speed Map Panel over Tuen Mun Road near Tseng Choi Street

The intelligent transportation systems use an advanced algorithm to integrate and optimize three types of traffic data, including (1) filtered real-time automatic vehicle identification data; (2) real-time video detector data; and (3) offline travel time forecasts. The integrated data is used for real-time estimation of average journey time and traffic speed on selected routes which is updated once every two minutes. This integrated algorithm has been adopted in Hong Kong's Journey Time Indication System and Speed Map Panel System, which display alternative route journey time and sectional traffic speed colour on traffic sign boards, to help motorists choose the most appropriate routes in order to avoid traffic congestion, and to help transport authorities monitor the traffic conditions for better traffic management.

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## Special Features and Advantages

- Integrates traffic data from different sources and uses limited available data to estimate traffic conditions in real time
- Estimated journey time and traffic speeds are very close to actual results, with accuracy rate of 95%

## Applications

- Journey Time Indication System – to provide estimates of average journey time on selected routes. Six sets of journey time indicators are installed in Kowloon area
- Speed Map Panel System – to provide real-time estimates of journey time and sectional traffic speed colour on selected routes. Three sets and 2 sets of panels are installed in New Territories East and New Territories West respectively

## Awards

- Commendation Award - HKIHT Highways and Transportation Excellence Award 2015 (Dec 2015)
- Outstanding Transportation Project Award - Eastern Asia Society for Transportation Studies (June 2011)



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