



Citilabs Cube交通模型軟體培訓課程通知

時間：108 年 2 月 19 - 21 日 上午 9:30 至 下午 5:30

地點：逢甲大學第四國際會議廳（臺中市西屯區文華路100號）

主辦單位：Citilabs

協辦單位：逢甲大學智慧運輸與物流創新中心、中區區域運輸發展研究中心、台北市交通工程技師公會

報名費用：一般-200美元/台幣6000元；大學及公部門- 100美元/台幣3000元

報名網址：<https://goo.gl/cPdEzZ>

聯繫窗口：逢甲大學智慧運輸與物流創新中心 - 郭松庭 (04-24517250 ext.6642)

課程講師：Vipul Modi – Senior Transportation Engineer, Citilabs

Based out of Singapore, Vipul is a key member of Citilabs support team for last 7 years and has developed travel demand and micro-simulation models for clients in the United States, Europe and Asia. He was an integral member of the Transportation Institute at University of Florida for 5 years with focus on traffic operations and research studies. Vipul obtained a master's degree from University of Florida, Gainesville and a bachelor's from Indian Institute of Technology Bombay (IIT Bombay), Mumbai.

課程說明：

感謝逢甲大學建設學院院長林良泰教授的支持以及台北市交通技師公會的協助。Citilabs 很榮幸能在逢甲大學舉辦這個三天的培訓課程。本課程主要介紹如何使用 Citilabs 所開發之 Cube Voyager 軟體來進行巨觀模擬, Cube Avenue 來進行中觀模擬與 Cube Dynasim 來進行微觀模擬。課程中也包括如何模擬大眾運輸。

這次培訓中最特別的是會介紹一個簡化的 Tour-based 模型。近年來全世界的趨勢是由傳統的四階段模型轉成更合理的 Tour-based 模型。但由於要成功的轉換需要投入大量的時間與人力資源。以致轉型不易。Citilabs 開發了一個簡化的 Tour-Base 模型並以成功地應用在幾個成功的案例。此一簡化的 Tour-based 模型可以達到 Tour-based 模型的大部分的好處但只需投入相對較少的資源。這將是本公司第一次將這個主題納入在培訓中。此外，這次培訓也將包括一個近年來很熱門的話題。那就是如何在模型中考來量自駕車的影響。

在培訓的頭半天我們很榮幸請到逢甲大學運輸與物流學系的師生來介紹他們很成功的交通規劃課程，很值得其他大學的參考與學習。此外 Citilabs 也將報告他們近年來在大數據的應用方面的研發成果以及 Cube 軟體的更新計畫。

參加培訓者請自備電腦(PC)。

培訓課程表

時間	活動	負責人
二月 19 日 星期二		
09:00 – 9:30	報到	
09:30 – 10:15	Citilabs 最新大數據研發成果與 Cube 的更新計畫	鄭立宏主任
10:15 – 11:00	CDIO 於運輸規劃之教學應用	逢甲師生
11:00 – 11:15	休息	
11:15 – 12:30	Cube 運輸規劃軟體，包含其規劃邏輯、模式建構與 Cube 的更新計畫	鄭立宏主任
12:30 – 13:30	午餐時間	
13:30 – 15:15	• Introduction to travel demand modeling • Understanding a Cube model and basic exercises	Mr. Vipul Modi
15:15 – 15:30	休息	
15:30 – 17:30	• Introduction to public transport modeling with Cube Voyager	Mr. Vipul Modi
二月 20 日 星期三		
09:00 – 9:30	報到	
09:30 – 11:00	• Review a simplified tour-based model and basic exercises	Mr. Vipul Modi
11:00 – 11:15	休息	
11:15 – 12:30	• How to model autonomous vehicles	Mr. Vipul Modi
12:30 – 13:30	午餐時間	
13:30 – 15:15	• Dynamic traffic assignment with Cube Avenue	Mr. Vipul Modi
15:15 – 15:30	休息	
15:30 – 17:30	• Dynamic traffic assignment with Cube Avenue	Mr. Vipul Modi
二月 21 日 星期四		
09:00 – 9:30	報到	
09:30 – 11:00	• Introduction to traffic simulation with Cube Dynasim	Mr. Vipul Modi
11:00 – 11:15	休息	
11:15 – 12:30	• Introduction to traffic simulation with Cube Dynasim	Mr. Vipul Modi
12:30 – 13:30	午餐時間	
13:30 – 15:15	• How to simulate parking with Cube Dynasim	Mr. Vipul Modi
15:15 – 15:30	休息	
15:30 – 17:30	• How to simulate parking with Cube Dynasim	Mr. Vipul Modi





Event Name: Training on Integrated Macro-Meso-Micro Modeling, Tour-Based Model & Modeling Autonomous Vehicles

Date: 9:30-17:30 19-21 Feb 2019

Location: Conference Room 4, International Conference Center, Feng Chia University, Wenhua Road, Xitun District, Taichung City, Taiwan 407

Local Co-host: Fengchia University Innovation Center for Intelligent Transport and Logistics, Regional Center for Transportation Development – Central Region, Taipei Traffic Engineers Association

FEE: USD\$200 per person, USD\$100 for public agency employees and university staff and students

Register: <https://goo.gl/cPdEzZ>

Inquiry: Citilabs – Luke Cheng, cheng@citilabs.com

Instructor: Vipul Modi - Based out of Singapore, Vipul is a key member of Citilabs support team for last 6 years and has developed travel demand and micro-simulation models for clients in the United States, Europe and Asia. He was an integral member of the Transportation Institute at University of Florida for 5 years with focus on traffic operations and research studies. Vipul obtained a master's degree from University of Florida, Gainesville and a bachelor's from Indian Institute of Technology Bombay (IIT Bombay), Mumbai.

Thanks to the support of Dr. Liang-Tay Lin, Professor and Dean of College of Construction and Development and Director of Innovation Center for Intelligent Transportation and Logistics, Citilabs is pleased to offer this rare opportunity to learn how to do Integrated modeling using Cube Voyager for MACROSCOPIC modeling, Cube Avenue for MESOSCOPIC DYNAMIC TRAFFIC ASSIGNMENT and Cube Dynasim for traffic MICROSIMULATION. The important subject of modeling public transport with Cube will also be covered.

At the beginning of the training, professors and students of the Department of Transportation Technology and Management of Fengchia University will share how they have successfully incorporated Cube into their course curriculum. They will present the design of their transportation planning course. Students will also share their term project reports.

For the first time, this training will cover how to develop a **simplified tour-based model** using Cube. For years, modelers have been wanting to move from traditional 4-step models to the more theoretically sound tour-based model. But the move has been hindered by extensive demand in terms of data and cost. Citilabs has developed and successfully implemented a process of building a simplified tour-based model that achieve much of the benefit of a tour-based model at a fraction of cost.

Another hot-topic that will be covered in the training (also for the first time) is how to model **autonomous vehicles** which is fast becoming a reality. How to include the effects of AVs in a model is an important challenge for today's modelers. Citilabs Cube Voyager is very flexible and can be easily used to model any new situations that need to be considered. This training will cover a simple process we developed to model AVs.

The focus then will be on how to apply **Cube Avenue** to do **dynamic traffic assignment** for a sub area or corridor. Finally, it will cover traffic micro-simulation using **Cube Dynasim** emphasizing on simulating traffic within and around **parking** facilities. The purpose of the course is to give a practical, hands-on overview of using Cube Voyager, Cube Avenue and Cube Dynasim to do Integrated modeling of MACRO, MESO and MICRO level of modeling and simulation.

Pre-Requisite: Some basic understanding of travel demand modeling or traffic micro-simulation is preferred. Attendees are required to bring their own laptop PC (not Mac).

TOPICS WILL INCLUDE

- Introduction to travel demand modeling
- Introduction to the Cube software suite
- Understanding a Cube model and basic exercises
- Review a simplified tour-based model and basic exercises
- How to model autonomous vehicles
- Introduction to public transport modeling with Cube Voyager
- Dynamic traffic assignment with Cube Avenue
- Introduction to traffic simulation with Cube Dynasim
- How to simulate parking with Cube Dynasim

About Taichung City

Taichung is the 2nd most populous city of Taiwan, located in the middle of Taiwan Island. Taichung has beautiful scenery and the best weather in Taiwan. It is only about 1-hour train ride away from Taoyuan International Airport (TPE) via Airport Transit then connecting to Taiwan High Speed Rail. There is also a smaller airport in Taichung (RMQ) with limited flights from several Asia cities.

Fengchia University is located right next to the world famous Fengchia night market. A great place to check out in the evening to get a taste of local culture and delicious and somewhat exotic food. Taichung World Flora Exposition is on-going and will run through April 24, 2019. This will be a great place to visit after the training.

<https://eng.taiwan.net.tw/m1.aspx?sNo=0002019&lid=079947>

You may search for hotels near Fengchia University in any popular hotel booking websites. There are quite a few to choose from. You may consider In Sky Hotel, In One City Inn, Kun Hotel or any others according to your own preference.

