



Northeastern

Department of Civil and Environmental Engineering Distinguished Seminar Series

Transport Smart in Congested Road Networks

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Chair Professor and Head

Department of Civil and Environmental Engineering

The Hong Kong Polytechnic University

Thursday, April 6, 2017 12:00 pm-1:00pm

458 Richards Hall

Abstract

Reliable real-time traffic information is essential for road users in making timely decisions on departure times and route choices in congested road networks with stochastic travel time variations. In this presentation, an overview of recent development of intelligent transportation systems (ITS) in Hong Kong will be given together with further extensions. It will cover the development of ITS for the provision of real-time road traffic information using limited available data from multiple sensor systems (on-line data) in combination with historical data (off-line data); and a reliability-based path-finding (RPF) system. This RPF system could recommend the most reliable path at a specified on-time arrival probability based on the preferred departure or arrival time given by the user. Future research on this important topic will also be discussed together with the related research works that have recently been carried out in the Hong Kong Polytechnic University.

Biographical Sketch

Ir Prof William H.K. Lam is a Chair Professor of Civil and Transportation Engineering and Head of the Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, Hong Kong. He is also an Honorary Professor at the Institute for Transport and Logistics Studies, The University of Sydney, Australia. He is the founding Editor-in-Chief of the SCI Journal – *Transportmetrica* and is now one of the Co-Editors-in-Chief of *Transportmetrica A: Transport Science* (<http://www.tandf.co.uk/journals/ttra>). Ir Prof. Lam is currently the Convenor of the International Advisory Committee of the International Symposium of Transportation and Traffic Theory (ISTTT) (www.isttt.org) and the President of the Hong Kong Society for Transportation Studies (HKSTS) (<http://www.hksts.org>). He is the past Chairman of Logistics and Transportation Division of the Hong Kong Institution of Engineers (HKIE) in 2014/15 and the past Chairman of Civil Division of the HKIE in 2002/03. Ir Prof. William H.K. Lam has over 35-year professional experience in research and practice for planning and design of transport infrastructures. He is the author of more than 250 SCI journal papers together with 70 consultancy reports. His research interests include transport network modeling and infrastructure planning, travel demand forecasts and risk assessment, ITS technology and planning, public transport and pedestrian studies.



Ir Prof William H.K. Lam

**Chair Professor and Head,
Department of Civil and Environmental Engineering,
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Education

- **PhD in Transportation Engineering, *UNIVERSITY OF NEWCASTLE, U.K., 1992***
- **M.Sc. in Civil Engineering, *UNIVERSITY OF CALGARY, CANADA, 1980***
- **B.Sc. in Civil Engineering, *UNIVERSITY OF CALGARY, CANADA, 1978***

Research Interests

- **Transport planning and traffic forecasting**
- **Traffic surveys and simulation**
- **ITS technology and planning**
- **Public transport and pedestrian studies**

Selected Service

- **Prof. Lam has over 35-year professional experience and is the author of over 500 international journal and conference papers together with consultancy reports**
- **President, Hong Kong Society for Transportation Studies (HKSTS)**
- **Co-Editor-in-Chief of the SCI Journal of Advanced Transportation**