

OVERVIEW 2003-2007

1. Introduction

This report summarizes the activities of the Institute of Transport Studies (ITS) and its members at the University of Hong Kong from 2003-2007.

1.1 Background

Transport is important to the people and economy of Hong Kong. Many millions of dollars could have been saved if we spend less time on transport. There are over 6.9 million people in Hong Kong. If everyone in Hong Kong could save 10 minutes a day on transport through the use of intelligent transport system and better land use-transport planning and the saving is just 1 dollar per minute, we could have saved 69 million dollars a day and over 25,000 million dollars a year. This amount would have been even much higher if we include the time that could be saved in transporting goods. Transport also closely affects the air quality and sustainability of our environment. We could save much energy and have a cleaner environment if we use more public transport and mass transit system and cleaner fuel. Although compared with other cities in Asia, we already have a very good transport system in Hong Kong, there is still much research to be carried out to improve the efficiency, equity, safety, comfort, services, and environmental friendliness of our transport system for a better Hong Kong. For example, we will have a much better living environment and make Hong Kong more competitive if we can reduce the air pollution from our transport system.

The transport sector has played a role of fundamental importance in the development of Hong Kong and will continue to do so in the future. Hong Kong's status as a global city derives in large part from the role that it plays as a key hub in the international air transport and maritime shipping systems. The future development of Hong Kong will be closely linked to its continuing role as the leading port in southern China.

1.2 Mission & Objectives

The Institute of Transport Studies is a university centre. It seeks to identify research programmes as mission oriented activities and not by traditional academic disciplines alone. In doing so it would undertake to:

- establish a database of all academic staff and research students in the University engaged in transport related research, their areas of special expertise, the titles of the projects in which they are engaged,
- promote through its activities collaboration within the University on multi- and inter-disciplinary transport research and the application of research grants,
- promote inter-institutional, regional and international cooperation in transport studies,
- publicize locally and internationally the image of the University as an institution committed to transport studies in Hong Kong, the region and worldwide, and
- organize seminars, conferences, and workshops on transport studies.

1.3 Membership

The following are Institute Fellows of ITS during the review period.

Professor C.C. Chan is Honorary Professor at the Department of Electrical and Electronic Engineering, and President of the Electric Vehicle Association of Asia Pacific. He is Academician of the Chinese Academy of Engineering, China, and Fellow of the Royal Academy of Engineering, U.K. His fields of interests include electric and hybrid electric vehicles and intelligent transportation system.

Dr. Timothy Doe-kwong Hau is Associate Professor at the School of Economics and Finance. His fields of interests include transportation economics, project evaluation, applied discrete choice econometrics, and public economics.

Dr. P.C. Lai is Associate Professor at the Department of Geography. Her fields of interests include geographic information systems design and applications, transport geography and network analysis, digital mapping and cartographic visualization, and urban and network geodata modeling.

Dr. Wong-hing Lam is Assistant Professor at the Department of Electrical and Electronic Engineering. His fields of interests include mobile radio communications, and intelligent transport services/systems.

Professor Dennis Y.C. Leung is Professor at the Department of Mechanical Engineering. His fields of interests include vehicular emission control, air pollution control, dispersion modeling, and energy conversion. Professor Leung was elected Fellow of the Hong Kong Institute of Acoustics in 2003, and appointed Honorary Professor of the Guangzhou Institute of Energy Conversion of the Chinese Academic of Science from 2005-2007.

Dr. Becky Pui-ying Loo is Associate Professor and Associate Dean of the Faculty of Social Sciences. Her fields of interests include transportation (infrastructure, road safety, sustainable urban transport and travel behaviour), spatial analysis (surveys, applied GIS and data modeling), and economic geography (globalization and information society). Dr. Loo was awarded the Outstanding Young Research Award from the University of Hong Kong in 2005.

Dr. Grantham K.H. Pang is Associate Professor at the Department of Electrical and Electronic Engineering. His fields of interests include intelligent transportation systems, LEDs for signaling and communication intelligent control, and fuzzy system and neural net. Dr. Pang was invited to be a contributor to the Encyclopedia of Life Support Systems published by United Nations Educational, Scientific and Cultural Organization (UNESCO). The contributed article is entitled "Blackboard Architecture for Intelligent Control".

Dr. Chung-on Tong is Associate Professor at the Department of Civil Engineering. His fields of interests include network modeling, and dynamic networks. Dr. Tong (with Professor S.C. Wong) received the Research Prize of the Civil Engineering Paper of the Year Award 2003 from the Civil Division of the Hong Kong Institution of Engineers in 2003.

Dr. James Jixian Wang is Associate Professor at the Department of Geography. His fields of interests include port-city relationship, transportation geography, travel behavior modeling, time budget/use studies, urban public transport in Hong Kong and China, and container port systems.

Professor S.C. Wong is Professor at the Department of Civil Engineering, and Assistant Director of ITS. His fields of interests include traffic signals, network modeling, continuum modeling, urban taxi services, and road safety. Professor Wong received the NSFC Young Researcher Award from the National Natural Science Foundation of China in 2007.

Dr. Nelson Yung is Associate Professor at the Department of Electrical and Electronic Engineering, and Assistant Director of ITS. His fields of interests include intelligent transportation systems, digital image processing, and fast algorithms.

Professor Anthony G.O. Yeh is Chair Professor and Head of Department of Urban Planning and Design, and Director of ITS. He is Academician of the Chinese Academy of Science. His fields of interests include land use planning, GIS, transport information system, and road signs.

2. Activities

The following activities were organized from 2003-2007:

Seminar on "Cost-Based versus Time-Based User-Equilibrium and System Optimum Assignment: Transferred by Tolling" by Professor Hai-Jun Huang, School of Management, Beijing University of Aeronautics and Astronautics, jointly organized with Department of Civil Engineering, The University of Hong Kong and Hong Kong Society for Transportation Studies, on 19 February 2003.

Seminar on “Measurement of Real-world Emissions from Heavy-duty Diesel Vehicles: the State-of-the-art” by Professor Mridul Gautam, Professor and Director, National Research Center for Alternative Fuels, Engines and Emissions, West Virginia University, USA, jointly organized with Department of Mechanical Engineering, The University of Hong Kong, on 25 February 2003.

Seminar on “Short-term Forecasting of Traffic Conditions: Methods, Limitations and Predictability of Traffic” by Professor Wei Hua Lin, Department of Systems and Industrial Engineering, The University of Arizona, jointly organized with Department of Civil Engineering, The University of Hong Kong and Hong Kong Society for Transportation Studies, on 17 March 2003.

Seminar on “Choice Set Generation for Route Choice in a Transport Network” by Professor Yasuo Asakura, Department of Architecture and Civil Engineering, Kobe University, Japan, jointly organized with Department of Civil Engineering, The University of Hong Kong and Hong Kong Society for Transportation Studies, on 27 March 2003.

Mini-Workshop on “Positioning using Mobile Phone Technology” by Professor Yasuo Asakura, Department of Architecture and Civil Engineering, Kobe University, Japan, and Dr. Nelson Yung, Department of Electrical and Electronic Engineering, The University of Hong Kong, jointly organized with Department of Electrical and Electronic Engineering, The University of Hong Kong, on 29 March 2003.

Seminar on “Application of a Dynamic Traffic Assignment Model and Algorithm” by Professor Michael Florian, Department of Computer Science and Operations Research, University of Montreal, Canada, jointly organized with Department of Civil Engineering, The University of Hong Kong, and Hong Kong Society for Transportation Studies, on 8 December 2003.

Seminar on “Path Finding under Uncertainty” by Professor Anthony Chen, Department of Civil & Environmental Engineering, Utah State University, USA, jointly organized with Department of Civil Engineering, The University of Hong Kong, and Hong Kong Society for Transportation Studies, on 23 December 2003.

Technical Visit to Zhongshan University and South China Polytechnic University, Guangzhou on 7 April 2004.

Seminar on “New Worldwide Trends in Developing Biodiesel as Automotove Fuel” by Werner Korbitz, Dipl.-Ing. Chairman, Austrian Biofuels Institute, jointly organized with Department of Mechanical Engineering, The University of Hong Kong, on 10 November 2004.

Seminar on “Current Economic Trend and Supply Chain Management in China”, jointly organized with The Baptist University, Centre for Supply Chain and Logistics Management, The Chinese University of Hong Kong, Department of Economics and Finance, City University of Hong Kong, and Centre for Supply Chain Research and Development, Beijing University, on 15 January 2005.

Research Postgraduate Seminar 2005, by Miss S.W.C. Fung, Department of Civil Engineering, Mr. H.W. Ho, Department of Civil Engineering, and Miss Yue Yang, Centre of Urban Planning and Environment Management, on 15 October 2005.

Workshop on “Design of Pedestrian and Vehicular Traffic Signs” by Professor Anthony Yeh, Chair Professor, Centre of Urban Planning and Environment Management, The University of Hong Kong, and Ir Julian T.H. Kwong, Independent Traffic Engineering Consultant, jointly organized with The Chartered Institute of Logistics and Transport in Hong Kong, on 22 October 2005.

Research Postgraduate Seminar 2007, by Mr. N.N. Sze, Department of Civil Engineering, Mr. Yinhua Xia, Department of Civil Engineering, Miss Wenjun Sun, Department of Civil Engineering, and Mr. Jiasong Zhu, Centre of Urban Planning and Environment Management, on 4 December 2007.

3. Services

3.1 International

3.1.1 *Editorial Board Membership*

ASCE Journal of Urban Planning and Development (Editorial Board Member & Guest Editor: S.C. Wong)
China Intelligent Transportation System (Editorial Board Member: S.C. Wong)
Computers, Environment and Urban Systems (Associate Editor: Anthony Yeh)
Control and Computers (Editor: G.K.H. Pang)
Environment and Planning B (Editorial Board Member: Anthony Yeh)
Hong Kong Institution of Engineers Transactions (Editor: Dennis Leung).
IEEE Transactions on Intelligent Transportation Systems (Associate Editor: S.C. Wong)
International Journal of Intelligent Control and Systems (Editor: G.K.H. Pang)
International Journal of Shipping and Transport Logistics (Editorial Board Member: Becky Loo, S.C. Wong)
International Journal of Sustainable Transportation (Editor-in-Chief: S.C. Wong; Editorial Board Member: Becky Loo)
Journal of Advanced Transportation (Associate Editor & Guest Editor: S.C. Wong)
Journal of Electronic Imaging (Guest Editor: Nelson Yung)
Journal of Global Environment Engineering (Regional Editor: Dennis Leung)
Journal of Intelligent Transportation Systems (Editorial Board Member & Guest Editor: S.C. Wong)
Journal of Transportation Systems Engineering and Information Technology (Editorial Board Member & Guest Editor: S.C. Wong)
Machine Intelligence and Robotic Control (Editor: G.K.H. Pang)
Network and Communication Studies (Associate Editor: Becky Loo)
Open Environmental Sciences (Editorial Board Member: S.C. Wong)
The Open Ergonomics Journal (Editorial Board Member: Becky Loo)
The Open Geography Journal (Editorial Board Member: Becky Loo)
The Open Transportation Journal (Editorial Board Member: Becky Loo, S.C. Wong)
The Open Urban Studies Journal (Editorial Board Member: Becky Loo, S.C. Wong)
Transportation (Editorial Board Member: Becky Loo; Guest Editor: S.C. Wong)
Transportation Research Part B (Editorial Board Member: S.C. Wong)
Transportmetrica (Editor-in-Chief: S.C. Wong; Associate Editor: Timothy Hau, Becky Loo)

3.1.2 *Committees*

Asia GIS Association (Secretary-General: Anthony Yeh)
Asia Pacific Hydrogen Association (Director: Dennis Leung)
Asia Planning Schools Association (Secretary-General: Anthony Yeh)
Association of American Geographers (AAG) (Member: Becky Loo)
Canadian Society for Fuzzy Information and Neural Systems in Ontario, Canada (Vice-President: G.K.H. Pang)
CIFAL Shanghai Scientific Seminar, United Nations (invitation by the United Nations Institute for Training and Research (UNITAR)) (Invited Member: Becky Loo)
Committee of Application of Advanced Technologies in Transportation, American Society of Civil Engineers (ASCE), USA (Member: S.C. Wong)
Committee on Traffic Flow Theory and Characteristics, Transportation Research Board, USA (Member: S.C. Wong)
E-Atlas Project, the Groupe de REcherches SOCio-Economiques (GRESOC), University of Toulouse-Le Mirail, France (Member: Becky Loo)
International Institute for Critical Infrastructures (Chairman of Computer Division: Nelson Yung)
International Scientific Committee, Eastern Asian Society for Transportation Studies (Member: S.C. Wong)
Network Modeling Committee, Transportation Research Board, USA (Member: S.C. Wong)
Steering Committee, Geography of Information Society Commission (C 10), International Geographical Union (Member: Becky Loo)
World Conference on Transport Research Society (Member: Becky Loo)

3.1.3 Conference Organizations

- Investment Grade Energy Audit Workshop (Chairman of Organizing Committee: Dennis Leung)
The 6th International IEEE Conference on Intelligent Transportation Systems, Shanghai, P.R. China, 12-15 October 2003 (Member of International Programme Committee: S.C. Wong)
- The Eighth Conference of Hong Kong Society for Transportation Studies, Hong Kong, 13-14 December 2003 (Chair of Organizing Committee: Becky Loo; Member: S.C. Wong)
- 2004 IEEE International Conference on Networking, Sensing and Control, Taipei, Taiwan, 21-23 March 2004 (Member of Program Committee: S.C. Wong)
- The Fourth International Conference on Traffic and Transportation Studies, Dalian, P.R. China, 2-4 August 2004 (Member of International Scientific Committee: S.C. Wong)
- The Ninth Conference of Hong Kong Society for Transportation Studies, Hong Kong, 11 December 2004 (Member of Organizing Committee: Becky Loo, S.C. Wong)
- Post-conference Workshop of The Ninth International Conference of the Hong Kong Society for Transportation Studies on Sustainable Urban Transportation: Concepts, Policies and Methodology, Hong Kong, 13 December, 2004 (Chair of Organizing Committee: Becky Loo)
- 2005 IEEE International Conference on Networking, Sensing and Control, Tucson, Arizona, USA, 19-22 March 2005 (Member of Program Committee: S.C. Wong)
- The First International Conference on Transportation Logistics, Singapore, 27-29 July 2005 (Member of International Programme Committee: S.C. Wong)
- 2005 IEEE International Conference on Vehicular Electronics and Safety, Xi'an, P.R. China, 6-8 October 2005 (Member of Programme Committee: S.C. Wong)
- The 4th Asia Pacific Conference on Transportation and the Environment, Xi'an, P.R. China, 8-10 November 2005 (Member of International Advisory and Technical Committee: S.C. Wong)
- The Tenth International Conference of Hong Kong Society for Transportation Studies, Hong Kong, 10 December 2005 (Member of Organizing Committee: Becky Loo, S.C. Wong)
- The Eighth Asia Pacific Intelligent Transport Systems Forum and Exhibition, Hong Kong, 10-13 July 2006 (Secretary of Technical Committee: S.C. Wong)
- The Fifth International Conference on Traffic and Transportation Studies, Xi'an, P.R. China, 2-4 August 2006 (Member of Scientific Committee: S.C. Wong)
- Second International Symposium on Road Safety, Hong Kong, 5 August 2006 (Chair of Organizing Committee: Becky Loo; Co-Chair: S.C. Wong)
- The Ninth International IEEE Conference on Intelligent Transportation Systems, Toronto, Canada, 17-20 September 2006 (Member of International Program Committee: S.C. Wong)
- 2006 IEEE International Conference on Systems, Man, and Cybernetics, Taipei, Taiwan, 8-11 October 2006 (Member of Program Committee: S.C. Wong)
- Symposium of Air Transportation, Brasilia, Brazil, 25-27 October 2006 (Member of Scientific Committee: S.C. Wong)
- The Eleventh International Conference of Hong Kong Society for Transportation Studies, Hong Kong, 9-11 December 2006 (Chair of Organizing Committee: S.C. Wong; Member: Becky Loo)
- Symposium on Emerging Gas Economy, 8 June 2007 (Vice Chairman of Organizing Committee: Dennis Leung)
- The Tenth International IEEE Conference on Intelligent Transportation Systems, Seattle, Washington, USA, 30 September - 3 October 2007 (Member, Program Committee (Associated Editor): S.C. Wong)
- 2007 IEEE International Conference on Systems, Man, and Cybernetics, Montreal, Quebec, Canada, 7-10 October 2007 (Member of Program Committee: S.C. Wong)
- The Fifth Asia Pacific Conference on Transportation and the Environment, Singapore, 7-8 December 2007 (Member of International Advisory Committee: S.C. Wong)
- The Twelfth International Conference of Hong Kong Society for Transportation Studies, Hong Kong, 8-10 December 2007 (Member of Organizing Committee: Becky Loo, S.C. Wong)

3.2 Local

3.2.1 HKSAR Government

Appeal Board Panel, Gas Safety Ordinance (Ch. 51) (Member: Dennis Leung)
Biodiesel Trial Monitoring Committee of the Hong Kong Environmental Protection Department (Member: Dennis Leung)
Diesel Oxidation Catalysis Monitoring Committee of the Hong Kong Environmental Protection Department (Member: Dennis Leung)
Expert Panel on Sustainable Transport Planning and Central Wan Chai Bypass, Sub-Committee on Wan Chai Development Phase II Review, Harbour-front Enhancement Committee (Member: S.C. Wong)
Harbour-front Enhancement Committee (Member: S.C., Wong)
Public Transport Services Sub-Committee, Transport Advisory Committee (Member: S.C. Wong)
Radio Spectrum Advisory Committee of OFTA (Member: W.H. Lam).
Road Safety and Traffic Management Sub-Committee, Transport Advisory Committee (Member: S.C. Wong)
Road Safety Council (Member: S.C., Wong)
Road Safety Research Committee, Road Safety Council (Member: Becky Loo, S.C. Wong)
Transport Advisory Committee (Member: S.C., Wong)
Transport Complaints Unit Sub-Committee, Transport Advisory Committee (Chairman: S.C. Wong)
Tuen Mun Road Traffic Incident Independent Expert Panel (Member: S.C. Wong)

3.2.2 Professional

Civil Division Committee, The Hong Kong Institution of Engineers (Member: S.C. Wong)
Environmental Division, Hong Kong Institution of Engineers (Co-opt Member: Dennis Leung)
Hong Kong Geographical Association (Chair: Becky Loo)
Hong Kong Society for Transportation Studies (Vice-President: S.C. Wong; Board Member: Timothy Hau, Becky Loo)
Publication Committee, Hong Kong Institution of Engineers (Deputy Chairman: Dennis Leung)
The Chartered Institute of Logistics and Transport in Hong Kong (Vice-President: S.C. Wong; Council Member: Timothy Hau, Becky Loo, Anthony Yeh)
The Hong Kong Quality Assurance Agency (Council Member: Dennis Leung)

3.2.3 Community Services

Academic Committee, Advanced Certificate in Logistics and Transport Studies, SPACE, HKU (Member: Becky Loo)
Academic Committee, Higher Diploma in Logistics and Transport Management, SPACE, HKU (Member: Becky Loo)
Academic Committee, Professional Diploma in Logistics and Transport Management, SPACE, HKU (Member: Becky Loo)
Appointments Committee, HKU SPACE, Community College (Member: Becky Loo)
Aviation Policy and Research Center, The Chinese University of Hong Kong (Member: Becky Loo)
Board of Governors, Friends of the Earth Hong Kong (Member: Dennis Leung)
ISO 14001 Technical Committee, HKQAA (Chairman: Dennis Leung)
Joint School Science Exhibition (Adjudicator & Advisor: Dennis Leung)
Quality Education Fund (External Advisor/Reviewer: Becky Loo)
Sun Hung Kai Properties Environmentally Friendly Joint Actions Committee (Member: Dennis Leung)
Swire Scholars Association (Member: Becky Loo)
The HK Jockey Club Large Vehicle Testing & Emission Centre (Honorary Advisor: Dennis Leung)
The Master of Arts in Transport Policy and Planning Alumni Association (Honorary Advisor: Becky Loo)

4. Research

4.1 Research Projects

A Multi-period Lane-based Optimization Method for Signalized Network with Explicit Consideration of Spatial Queues, funded by Hong Kong Research Grants Council (Principal Investigator: S.C. Wong)

A Spatial Analysis of Road Accidents in Tuen Mun Area, funded by Committee on Research and Conference Grants, The University of Hong Kong (Principal Investigator: Becky Loo)

An Analysis of Bicycle Crashes in Hong Kong: Where? How? And What?, funded by Committee on Research and Conference Grants, The University of Hong Kong (Principal Investigator: Becky Loo)

An Experimental Study of Age Differences on Road Crossing Behaviour, funded by Committee on Research and Conference Grants, The University of Hong Kong (Principal Investigator: Becky Loo)

Conducting Spatial Enquiry in the New Senior Secondary Geography Curriculum, funded by Education and Manpower Bureau, Government Secretariat, Government of the Hong Kong Special Administrative Region: Partnership Scheme with Subject-related Organization (Principal Investigator: Becky Loo)

Contract Research: Feasibility Study of using Water Scrubber for Ferry (Principal Investigator: Dennis Leung)

Cordon-based Congestion Pricing in a Continuum Traffic Equilibrium System, funded by Hong Kong Research Grants Council (Principal Investigator: S.C. Wong)

Development of Environmentally Friendly Fuel Additive (Principal Investigator: Dennis Leung)

Dynamic Macroscopic Modeling of Pedestrian Flows, funded by Hong Kong Research Grants Council (Principal Investigator: S.C. Wong)

Electric Variable Transmission, supported by National Science Foundation, China, conducted at Harbin Institute of Technology (Principal Investigator: C.C. Chan)

From the Black Spot to "Black Zone" Methodology in Road Safety Research: A Case Study of Hong Kong, funded by Hong Kong Research Grants Council (Principal Investigator: Becky Loo)

GIS Road Network Data Model for the Display and Navigation of Multi-Lane Complex Intersection Transport Network, funded by Hong Kong Research Grants Council (Principal Investigator: Anthony Yeh)

Observational before-and-after study methodology for road safety measures, funded by Committee on Research and Conference Grants, The University of Hong Kong (Principal Investigator: S.C. Wong)

Obstacle Behavior Prediction for Vehicle Collision Avoidance in Dynamically Changing Environments, funded by Hong Kong Research Grants Council (Principal Investigator: Nelson Yung)

Planning of a Land Use and Transportation System with Multiple Market Segments, funded by Hong Kong Research Grants Council (Principal Investigator: S.C. Wong)

Production of Biodiesel from Waste Oil (Principal Investigator: Dennis Leung)

Research on Hot Zones: Facing the Theoretical and Methodological Challenges, funded by Hong Kong Research Grants Council (Principal Investigator: Becky Loo)

The Redistribution of Container Truck Traffic among Different Land-based Customs Check-points after the Opening of the Shenzhen Western Corridor, funded by Route 3 (CPS) Company Limited (Principal Investigator: Becky Loo)

The Role of Residents' Coaches in Shaping Hong Kong's Urban and Transport Development, funded by Hui Oi Chow Trust Fund (Principal Investigator: Becky Loo)

Visual Resolution of Multiple Severely Occluded Vehicles in Monocular Image Sequence, funded by Hong Kong Research Grants Council (Principal Investigator: Nelson Yung)

4.2 Research Postgraduate Students Graduated

4.2.1 *Doctor of Philosophy*

Hing-yip Chung (2003) A Quadrilateral-based Method for Object Segmentation and Tracking, Ph.D. Thesis (Supervisor: Nelson Yung)

Shiu-kai Fung (2003) Non-model Based Vehicle Shape Reconstruction from Outdoor Traffic Image Sequences, Ph.D. Thesis (Supervisor: Nelson Yung)

Xui-zhi Yang (2003) Discriminative Fabric Defect Detection and Classification using Adaptive Wavelet, Ph.D. Thesis (Supervisor: Nelson Yung)

H.W. Ho (2005) A Continuum Modeling Approach to Traffic Equilibrium Problems, Ph.D. Thesis (Supervisor: S.C. Wong)

Chun-cheong Pang (2005) A Methodology for Resolving Multiple Vehicle Occlusion in Visual Traffic Surveillance, Ph.D. Thesis (Supervisor: Nelson Yung)

Yang Yue (2005) Spatial-temporal Dependency of Traffic Flow and its Implication for Short-term Traffic Forecasting, Ph.D. Thesis (Anthony Yeh)

Wai-leung Lam (2006) 3D Reconstruction of Road Vehicles based on Textual Features from a Single Image, Ph.D. Thesis (Supervisor: Nelson Yung)

Xiaochen He (2007) Feature Extraction from Two Consecutive Traffic Images for 3D Wire Frame Reconstruction of Vehicles, Ph.D. Thesis (Supervisor: Nelson Yung)

Chi-kit Ngai (2007) Reinforcement Learning Based Autonomous Vehicle Navigation in a Dynamically Changing Environment, Ph.D. Thesis (Supervisor: Nelson Yung)

Jiasong Zhu (2007) A Self-learning Short-term Traffic Forecasting System through Dynamic Hybrid Approach, Ph.D. Thesis (Anthony Yeh)

4.2.2 *Master of Philosophy*

Sylvia Wei-chi Fung (2005) Calibration and Validation of Transit Network Assignment Models, M.Phil. Thesis (Supervisor: C.O. Tong & S.C. Wong)

Shing-tat Wong (2005) Disaggregate Analyses of Stated Preference Data for Capturing Parking Choice Behavior, M.Phil. Thesis (Supervisor: C.O. Tong & S.C. Wong)

Ka-wing Yim (2005) A Reliability-based Land Use and Transportation Optimization Model, M.Phil. Thesis (Supervisor: S.C. Wong & C.O. Tong)

Miu-kuan Tsui (2006) Pedestrian Safety in Hong Kong, M.Phil. Thesis (Supervisor: Becky Loo)

Wenqin Chen (2007) An Analytical Shock-fitting Approach to the Solution of the Lighthill-Whitham-Richards Traffic Flow Model, M.Phil. Thesis (Supervisor: S.C. Wong)

4.3 Publications

- Bandara J.M.S.J. and Wong S.C. (2005) Editorial, Special Issue: Some recent advances in transportation modeling. *Journal of Advanced Transportation*, 39, 241-245.
- Bie J., Lo H.K. and Wong S.C. (2005) The effect of lane utilization on the capacity of multi-lane traffic roundabout. *Proceedings of the Tenth International Conference of Hong Kong Society for Transportation Studies*, 10 December, Hong Kong, pp 431-440.
- Bie J., Lo H.K., Wong S.C., Hung W.T. and Loo B.P.Y. (2004) Modeling potential conflict of traffic roundabout. *Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies*, 11 December, Hong Kong, pp 340-349.
- Bie J., Lo H.K., Wong S.C., Hung W.T. and Loo B.P.Y. (2005) Safety analysis of traffic roundabout: conventional versus Alberta-type markings. *Journal of the Eastern Asia Society for Transportation Studies*, 6, 3309-3324.
- Cang Y., Yung N.H.C. and Wang D. (2003) A fuzzy controller with supervised learning assisted reinforcement learning algorithm for obstacle avoidance. *IEEE Transactions on Systems, Man and Cybernetics*, 33, 17-27.
- Chan C.C. (2003) Challenges of electric vehicles. Invited Speech, Taipei Power Forum, December 2003.
- Chan C.C. (2003) Clean, efficient and intelligent electric vehicles. Keynote Speech, International Conference on Electric Machines and Systems, November, Beijing.
- Chan C.C. (2003) Method for Battery Residual Capacity Estimation in Electric Vehicles, UK Patent No. GB 0206316.2.
- Chan C.C. (2003) World class university, high technology and capital market. Invited Speech, China Association of Science and Technology (CAST) Annual Meeting, September, Shenyang.
- Chan C.C. (2004) Challenges and opportunity of electric vehicles and their requirement for batteries. Invited Speech, Euroforum: Batteries 2004, June, Paris.
- Chan C.C. (2004) Challenges of electric vehicles: clean transportation means for the 21st century. Invited Speech, International Forum and Exhibition of Environment Protection Automobiles, February, Haikou, Hainan Island, China.
- Chan C.C. (2004) Industrial ecology. Invited Speech, China Association of Science and Technology Annual Meeting 2004, November, Haikou, Hainan Island, China.
- Chan C.C. (2004) Present status and future trends of electric vehicles. Keynote Address, Third Asian Electric Vehicles Conference, March, Seoul, Korea.
- Chan C.C. (2004) Recent advances in global electric vehicles. Keynote Speech, International Conference on Electric Engineering (ICEE 2004), July, Sapporo.
- Chan C.C. (2004) The challenges and opportunity of electric vehicles in the new century. Invited Speech, China International Battery Forum, April, Beijing.
- Chan C.C. (2004) The challenges of industrial ecology in the new century. Invited Speech, World Engineers' Convention (WEC 2004), November, Shanghai.
- Chan C.C. (2004) The state of the art of electric vehicles technology. Keynote Speech, International Conference on Power Electronics and Motion Controls (IPEMC 2004), August, Xi-an, China.
- Chan C.C. (2004) The state of the art of electric vehicles. Invited Speech, World Engineers' Convention (WEC 2004), November, Shanghai.
- Chan C.C. (2005) Electric Vehicle Battery Residual Capacity Estimation Method, China Invention Patent No. 0214428.1.
- Chan C.C. (2005) Energy development strategy and industrial ecology. Shanghai Forum, 17 May.
- Chan C.C. (2005) Energy development strategy, industrial ecology and power grid interconnection in Northeast Asia. International Conference on Electrical Engineering (ICEE 2005), 11 -13 July, Kunming, China.
- Chan C.C. (2005) Energy development strategy, industrial ecology and challenges to electric machines systems. *Proceedings of the Eighth International Conference on Electrical Machines and Systems (ICEMS)*, 27-29 September, Nanjing, China, pp. 12- 17.
- Chan C.C. (2005) International Conference on Cycle Economy & Industrial Ecology, 17-18 October, Wuhan, China.
- Chan C.C. (2005) Recycle economy and industrial ecology. China Association of Science and Technology Annual Meeting 2005, 20-22 August, Urumuqi, China.
- Chan C.C. (2005) The challenge of sustainable mobility. *IEEE Vehicles Power and Propulsion Conference (VPPC 2005)*, 7-9 August, Chicago, USA.

- Chan C.C. (2005) The challenges of sustainable mobility - clean, efficient and intelligent vehicles. Fourth Asian Electric Vehicles Conference (AEVC-4), 26-28 November, Osaka, Japan.
- Chan C.C. (2006) Challenges of sustainable mobility and light electric vehicles. Proceedings of China Light Electric Vehicles Summit Forum, Wuxi, China, 7 October, pp. 1-2.
- Chan C.C. (2006) Challenges of sustainable mobility and small motors. Proceedings International Forum on Small Motors, 15 November, Shanghai, China, pp. 1-4.
- Chan C.C. (2006) Global sustainable mobility and EV/HEV/FCEV development in China & Japan. Proceedings of IEEE Vehicle Power and Propulsion Conference, 6-8 September, Windsor, UK, CD ROM.
- Chan C.C. (2006) Outlook of automobile industry and EV commercialization in China. Proceedings of 22nd International Electric Vehicle Symposium (EVS-22), 25-28 October, Yokohama, CD-ROM.
- Chan C.C. (2006) Sustainable energy and mobility, and challenges to power electronics. Proceedings of International Power Electronics and Motion Control Conference, 14-16 August, Shanghai, CD ROM.
- Chan C.C. (2006) The state of the art of electric, hybrid and fuel cell vehicles. IEEE International Conference on Electric and Hybrid Vehicles, 18-20 December, Pune, India.
- Chan C.C. (2007) Guest Editorial – Scanning the Issue”. Proceedings of IEEE, Special Issue on Electric, Hybrid and Fuel Cell Vehicles, April.
- Chan C.C. (2007) The state of the art of electric, hybrid and fuel cell vehicles. Proceedings of IEEE, Special Issue on Electric, Hybrid and Fuel Cell Vehicles, April.
- Chan C.C. and Chan F.C. (2006) Sustainability of electricity and its lighting applications. Proceedings of International Conference on Electrical Engineering ICEE-2006, 9-13 July, Yong Pyong, Korea, CD ROM.
- Chan C.C. and Wong Y.S. (2004) Electric vehicles charge forward. IEEE Power and Energy Magazine, 24-33.
- Chan C.C. and Wong Y.S. (2004) Recent advances in electric vehicles. IEEE Power and Energy Magazine, 2-12.
- Chan C.C. and Wong Y.S. (2004) The state of the art of electric vehicles technology. The 4th International Power Electronics and Motion Control Conference (IPEMC), Volume 1, pp. 46 -57.
- Chan C.C., Zhou H. and Sun L. (2005) Recent progress of electric vehicles in China along with worldwide trends. Proceedings of 21st International Electric Vehicle Symposium (EVS-21), 2-6 April, Monaco, CD-ROM.
- Chan K.S., Lam W.H.K., Ouyang L.Q. and Wong S.C. (2007) Simultaneous estimation of the pedestrian origin-destination matrix and parameter of the activity/destination choice. Journal of the Eastern Asia Society for Transportation Studies, 7, 1760-1773.
- Chan M.S.W., Chan C.C. and Chau K.T. (2005) Low-cost hardware implementation of lithium-ion battery capacity indicator. Proceedings of 21st International Electric Vehicle Symposium (EVS-21), 2-6 April, Monaco, CD-ROM.
- Chan S.W., Chau K.T. and Chan C.C. (2006) A dedicated charger for hybrid energy systems with ultracapacitors and lithium polymer batteries. 22nd International Electric Vehicle Symposium (EVS-22), 25-28 October, Yokohama, CD-ROM.
- Chau K.T. and Chan C.C. (2007) Emerging energy-efficient technologies for hybrid electric vehicles. Proceedings of IEEE, Special Issue on Electric, Hybrid and Fuel Cell Vehicles, April.
- Chau K.T., Chan M.S.W. and Chan C.C. (2003) Lithium ion battery model. Proceedings of 20th International Electric Vehicle Symposium (EVS-20), November, California, USA, CD-ROM, pp. 1-10.
- Chau K.T., Chung S.W. and Chan C.C. (2003) Neuro-fuzzy speed tracking control of traveling-wave ultrasonic motor drives using direct pulse width modulation. IEEE Transactions on Industry Applications, 39, 1061-1069.
- Chau K.T., Wu K.C. and Chan C.C. (2004) A new battery capacity indicator for lithium-ion battery powered electric vehicles using adaptive neuro-fuzzy inference system. Energy Conversion and Management, 45, 1681-1692.
- Chau K.T., Wu K.C., Chan C.C. and Shen W.X. (2003) A new battery capacity indicator for nickel-metal hydride battery powered electric vehicles using adaptive neuro-fuzzy inference system. Energy Conversion and Management, 44, 2059-2071.
- Chen A., Chootinan P. and Wong S.C. (2006) Link overload minimization versus reserve capacity maximization in the network design problem. Proceedings of the Eleventh International Conference of Hong Kong Society for Transportation Studies, 8-10 December, Hong Kong, pp 205-214.

- Chen A., Chootinan P. and Wong S.C. (2006) New reserve capacity model of signal-controlled road network. *Transportation Research Record*, 1964, 35-41.
- Chen A., Zhou Z., Chootinan P. and Wong S.C. (2007) Optimizing capacity reliability and travel time reliability in the network design problem. *Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp 223-232.
- Chen W., Wong S.C. and Shu C.W. (2007) Efficient evaluation of the measure of effectiveness for LWR traffic flow model on a homogeneous highway. Paper presented at the 86th TRB Annual Meeting, 21-25 January, Washington D.C., USA.
- Cheng H.K., Leung E.K.H. and Wong S.C. (2003) Report on Enhancement of Highway Safety – Tuen Mun Road Traffic Incident Independent Expert Panel. Invited presentation at the Transport Panel, Legislative Council, Hong Kong SAR, 5 December, Hong Kong.
- Cheng H.K., Leung E.K.H. and Wong S.C. (2003) Report on Enhancement of Highway Safety – Tuen Mun Road Traffic Incident Independent Expert Panel. Invited presentation at the Press Briefing, 5 December, Hong Kong.
- Cheng H.K., Leung E.K.H. and Wong S.C. (2003) Report on Enhancement of Highway Safety – Tuen Mun Road Traffic Incident Independent Expert Panel. Invited presentation at the Transport Advisory Committee, The Government of Hong Kong SAR, 16 December, Hong Kong.
- Cheng H.K., Leung E.K.H. and Wong S.C. (2003) Report on Enhancement of Highway Safety. Tuen Mun Road Traffic Incident Independent Expert Panel. Prepared for the Chief Executive, the Government of Hong Kong SAR.
- Cheng M., Chau K.T. and Chan C.C. (2003) New split-winding doubly salient permanent magnet motor drive. *IEEE Transactions on Aerospace and Electronic Systems*, 39, 202-210.
- Cheng M., Chau K.T., Chan C.C. and Sun Q. (2003) Control and operation of a new 8/6-pole doubly salient permanent-magnet motor drive. *IEEE Transactions on Industry Applications*, 39, 1363-1371.
- Cheng Y., Cui S., Song L. and Chan C.C. (2005) The study of the operation modes and electromechanical converter for automobiles. *IEEE Transactions on Magnetic*.
- Cheung W.M., Wong S.C. and Tong C.O. (2006) Estimation of a time-dependent origin-destination matrix for congested highway networks. *Journal of Advanced Transportation*, 40, 95-117.
- Choi K., Jang J.A., Wong S.C., Lee, D.H. and Yang H. (2004) A game-theoretic approach for VMS operation. *Proceedings of the International Workshop on Behavior in Networks*, 22-23 July, Seoul, South Korea, pp 146-177.
- Choi Y.L., Wong S.C., Tong C.O., Fung W.C. and Yim K.W. (2003) The development of a windows-based interface for the land use and transportation optimization (LUTO) model. *Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies*, 13-14 December, Hong Kong, pp 73.
- Chootinan P., Wong S.C. and Chen A. (2005) A reliability-based network design problem. *Journal of Advanced Transportation*, 39, 247-270.
- Chu M.H. and Pang G.K.H. (2007) Solder paste inspection by special LED lighting for SMT manufacturing of printed circuit boards. *Intelligent Manufacturing Systems, IMS'07*, 23-25 May, Alicante, Spain.
- Chung H.Y., Yung N.H.C. and Cheung P.Y.S. (2005) An efficient parameter-less quadrilateral-based segmentation method. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 27, 1446-1458.
- Chung S.W., Chau K.T. and Chan C.C. (2003) Self-locking torque control of traveling-wave ultrasonic motors. *Proceedings of International Conference on Electrical Engineering, (ICEE)*, July, Hong Kong, China, CD-ROM.
- Cui S., Cheng Y. and Chan C.C. (2006) A basic study of electrical variable transmission and its application in hybrid electric vehicles. *Proceedings of IEEE Vehicle Power and Propulsion Conference*, 6-8 September, Windsor, U.K. Paper No.SNO-143. CD ROM.
- Cui S., Cheng Y. and Chan C.C. (2006) An advanced electric variable transmission. *Transactions of China Electrotechnical Society*, 21.
- Fung G.S.K., Yung N.H.C. and Pang G.K.H. (2003) Camera calibration from road lane markings. *Optical Engineering - The Journal of SPIE*, 42, 2967-2977.
- Fung S.W.C., Tong C.O. and Wong S.C. (2004) Predicting the performance of a mass transit system by using a conventional network model. Invited paper, *Proceedings of the Croucher Advanced Study Institute (ASI) on Advanced Modeling for Transit Supply and Passenger Demand*, 19-20 January, Hong Kong, pp C1.1.

- Fung S.W.C., Tong C.O. and Wong S.C. (2004) Validation of a dynamic schedule-based metro network model. Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies, 11 December, Hong Kong, pp 57-66.
- Fung S.W.C., Tong C.O. and Wong S.C. (2005) Dynamic transit network assignment using a stochastic generalized cost function. Proceedings of the Tenth International Conference of Hong Kong Society for Transportation Studies, 10 December, Hong Kong, pp 531-538.
- Fung S.W.C., Tong C.O. and Wong S.C. (2005) Validation of a conventional metro network model using real data. Journal of Intelligent Transportation Systems, 9, 69-79.
- Fung S.W.C., Tong C.O. and Wong S.C. (2007) A multi-criterion multi-class dynamic transit trip assignment model. Paper presented at the Eleventh World Conference on Transport Research, 24-28 June, Berkeley, California, USA.
- Gan L.P., Yang H. and Wong S.C. (2005) Traffic counting location and error bound in origin-destination matrix estimation problems. ASCE Journal of Transportation Engineering, 131, 524-534.
- Gao Z.Y., Lam W.H.K., Wong S.C. and Yang H. (2004) The convergence of equilibrium algorithms with non-monotone line search technique. Applied Mathematics and Computation, 148, 1-13.
- Hau T.D. (2005) Economic fundamentals of road pricing: a diagrammatic analysis, Part I – Fundamentals. Transportmetrica, 1, 81-117.
- Hau T.D. (2005) Economic fundamentals of road pricing: a diagrammatic analysis, Part II - Relaxation of assumptions. Transportmetrica, 1, 119-149.
- Hau T.D. (2006) Congestion charging mechanisms for roads, Part I - Conceptual framework. Transportmetrica, 2, 87-116.
- Hau T.D. (2006) Congestion charging mechanisms for roads, Part II - Case studies. Transportmetrica, 2, 117-152.
- Hau T.D. (2006) Driven to the brink: crucial road and rail choices for planning Hong Kong's future. Panel speaker, Business and Economic Policy Seminar Series 2005/06, Faculty of Business and Economics at the University of Hong Kong, South China Morning Post and Citigroup, 5 December.
- Hau T.D. (2007) Economic basis for a feasible implementation of road pricing: perspectives from an economist in Hong Kong. Invited speaker, Seminario de Transporte Urbano, Transportnet, Codatu and Inter-American Development Bank, 8-13 October, Santiago de Chile, pp. 1-77.
- Hau T.D., Wong K.I. and Wong S.C. (2004) Estimating optimal tolls for cross harbour tunnels in Hong Kong. Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies, 11 December, Hong Kong, pp 420-422.
- He X.C. and Yung N.H.C. (2004) Curvature scale space corner detection with dynamic support. Proceedings of the 17th International Conference on Pattern Recognition (ICPR2004), Vol. 2, August, Cambridge, UK, pp. 791-794. (ISBN: 0-7695-2128-2/04)
- He X.C. and Yung N.H.C. (2005) Performance improvement of edge detection based on edge likelihood index. Proceedings of SPIE, Vol.5960, Visual Communications and Image Processing, (VCIP), 2005, Bellingham, pp.1664-1673.
- He X.C. and Yung N.H.C. (2006) New method for overcoming ill-conditioning in vanishing-point-based camera calibration. Optical Engineering - The Journal of SPIE, 46, 037202.
- He X.C. and Yung N.H.C. (2007) A novel algorithm for estimating vehicle speed from two consecutive images. Proceedings of IEEE Workshop on Applications of Computer Vision, pp.12. (ISBN:0-7695-2794-9)
- He X.C. and Yung N.H.C. (2008) A corner detector based on global and local curvature properties. Optical Engineering, 47, 057008.
- He X.C., Chung R.H.Y and Yung N.H.C. (2007) Watershed segmentation with boundary curvature ratio based merging criterion. Proceedings of IASTED International Conference on Signal and Image Processing, pp. 7-12.
- Ho H.W. and Wong S.C. (2005) A combined model of housing location and traffic equilibrium problems in a continuous transportation system. In Hani S. Mahmassani (ed.), Transportation and Traffic Theory: Flow, Dynamics and Human Interaction, Elsevier Science Ltd., pp 761-780. (ISBN: 0-08-044680-9)
- Ho H.W. and Wong S.C. (2005) A Levenberg-Marquardt iterative solver for least-squares problems. Communications in Numerical Methods in Engineering, 21, 327-335.
- Ho H.W. and Wong S.C. (2006) A review of the two-dimensional continuum modeling approach to transportation problems. Journal of Transportation Systems Engineering and Information Technology, 6, 53-72.

- Ho H.W. and Wong S.C. (2007) Housing allocation problem in a continuum transportation system. *Transportmetrica*, 3, 21-39.
- Ho H.W., Wong S.C. and Hau T.D. (2004) Economic aspects of housing-related problems in a continuous transportation system. *Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies*, 11 December, Hong Kong, pp 330-339.
- Ho H.W., Wong S.C. and Hau T.D. (2007) A multi-class congestion pricing problem in a continuum transportation system. *Journal of the Eastern Asia Society for Transportation Studies*, 7, 238-253.
- Ho H.W., Wong S.C. and Hau T.D. (2007) Existence and uniqueness of a solution for the multi-class user equilibrium problem in a continuum transportation system. *Transportmetrica*, 3, 107-117.
- Ho H.W., Wong S.C. and Hau T.D. (2007) Theoretical bounds of congestion-pricing efficiency for a continuum transportation system. In R.E. Allsop, M.G.H. Bell and B.G. Heydecker (eds.), *Transportation and Traffic Theory 2007*, Elsevier Ltd., pp 263-280. (ISBN: 978-0-08-045375-0)
- Ho H.W., Wong S.C. and Loo B.P.Y. (2003) A continuous traffic equilibrium model with multiple user classes. *Journal of the Eastern Asia Society for Transportation Studies*, 5, 2831-2845.
- Ho H.W., Wong S.C. and Loo B.P.Y. (2004) Sequential optimization approach for the multi-class user equilibrium problem in a continuous transportation system. *Journal of Advanced Transportation*, 38, 323-345.
- Ho H.W., Wong S.C. and Loo B.P.Y. (2006) Combined distribution and assignment model for a continuum traffic equilibrium problem with multiple user classes. *Transportation Research Part B*, 40, 633-650.
- Ho H.W., Wong S.C., Yang H. and Loo B.P.Y. (2003) Cordon-based congestion pricing in a continuum traffic equilibrium system. Invited plenary presentation at the *Theory and Practice of Congestion Charging: An International Symposium*, 18-20 August, London, UK.
- Ho H.W., Wong S.C., Yang H. and Loo B.P.Y. (2005) Cordon-based congestion pricing in a continuum traffic equilibrium system. *Transportation Research Part A*, 39, 813-834.
- Huang H.J., Li Z.C., Lam W.H.K. and Wong S.C. (2005) A time-dependent activity and travel choice model with multiple parking options. In Hani S. Mahmassani (ed.), *Transportation and Traffic Theory: Flow, Dynamics and Human Interaction*, Elsevier Science Ltd., pp 717-739. (ISBN: 0-08-044680-9)
- Hui T.W. and Wong S.C. (2007) 3D profile reconstruction of solder paste based on phase. *Proceedings of the 5th IEEE International Conference on Industrial Informatics*, 23-26 July, Vienna, Austria, pp. 165-170.
- Jiang S.Z., Chau K.T. and Chan C.C. (2003) Harmonic reduction in DC-link current of a dual-inverter pole-changing induction motor drive for electric vehicles. *Electric Power Components and Systems*, 31, 1063-1081.
- Jiang S.Z., Chau K.T. and Chan C.C. (2003) Spectral analysis of a new six-phase pole-changing induction motor drive for electric vehicles. *IEEE Transactions on Industrial Electronics*, 50, 123-131.
- Lai H.S. and Yung N.H.C. (2007) “利用流動網絡及無線電通訊的個人定位追蹤裝置及方案”, Hong Kong Standard Patent No: 07103898.0, September.
- Lai P.C. and Chan W.Y. (2004) An application of GIS for road accident analysis in Hong Kong. *Journal of Geographic Information Sciences*, 10, 58-67.
- Lai P.C. and Yeh A.G.O. (2004) Assessing the effectiveness of dynamic symbols in cartographic communication. *The Cartographic Journal*, 41, 229-244.
- Lai P.C., Li C.L., Chan K.W. and Kwong K.H. (2007) An assessment of GPS and GIS in recreational tracking. *Journal of Park and Recreation Administration*, 25, 128-139.
- Lam W.H.K., Bell M.G.H., Hau T.D., Hung W.T., Lo H.K., Pong Y.Y., Wang J.J. and Wong S.C. (2005) Report of the Expert Panel on Sustainable Transport Planning and Central – Wan Chai Bypass. Prepared for the Sub-committee on Wan Chai Development Phase II Review, Harbour-front Enhancement Committee, Hong Kong SAR.
- Lam W.H.K., Hung W.T., Lo H.K., Lo H.P., Tong C.O., Wong S.C. and Yang H. (2003) Advancement of the annual traffic census in Hong Kong. *Proceedings of the Institution of Civil Engineers, Transport*, 156, 103-115.
- Lam W.H.K., Li Z.C., Huang H.J. and Wong S.C. (2006) Modeling time-dependent travel choice problems in road networks with multiple user classes and multiple parking facilities. *Transportation Research Part B*, 40, 368-395.
- Lam W.H.K., Li Z.C., Huang H.J. and Wong S.C. (2006) Optimization of time-varying parking charges and parking supplies in networks with multiple user classes and various parking facilities. Paper presented at the 85th TRB Annual Meeting, 22-26 January, Washington D.C., USA.

- Lam W.H.K., Li Z.C., Wong S.C. and Zhu D.L. (2007) Modeling an elastic-demand bimodal transport network with park-and-ride trips. *Tsinghua Science and Technology*, 12, 158-166.
- Lam W.H.K., Tam M.L., Wong S.C. and Wirasinghe S.C. (2003) Wayfinding in passenger terminal of Hong Kong International Airport. *Journal of Air Transport Management*, 9, 73-81.
- Lam W.L., Pang C.C. and Yung N.H.C. (2004) A highly accurate texture-based vehicle segmentation method. *Optical Engineering - The Journal of SPIE*, 43, 591-603.
- Lam W.W.L., Pang C.C.C. and Yung N.H.C. (2004) Multi-scale space vehicle component identification. *Proceedings of the IEEE International Conference on Image Processing*, Singapore, pp. 925-928. (ISBN: 0-7803-8555-1)
- Lam W.W.L., Pang C.C.C. and Yung N.H.C. (2007) Vehicle component identification using multi-scale texture couriers. *IEEE Transactions on Intelligent Transportation Systems*, 8, 681-694.
- Lau W.W.T., Poon P.S.T., Tong C.O. and Wong S.C. (2005) The Hong Kong Second Parking Demand Study. *Proceedings of the Institution of Civil Engineers, Transport*, 158, 53-59.
- Lee C.S., Chung C.W. and Yung N.H.C. (2006) Overview of technologies for automatic data transmission for red light camera system. *Proceedings of the 8th Asia-Pacific ITS Forum*.
- Lee T.C. and Pang G.K.H. (2004) Defect detection in fabrics by matched filters. *TENCON 2004*, 21-24 November.
- Lee T.C. and Pang G.K.H. (2004) Fabric defect detection by matched filters. *Proceedings of the First Asia International Symposium on Mechatronics (AISM 2004)*, 27-30 September, Xi'an, China, pp. 516-520.
- Leung B.S.Y., Loo B.P.Y., Wong S.C. and Yang H. (2003) A statistical analysis of the taxi license premium in Hong Kong. *Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies*, 13-14 December, Hong Kong, pp 350-351.
- Leung D.Y.C. and Guo Y. (2006) Transesterification of neat and used frying oil: optimization for biodiesel production. *Fuel Processing Technology*, 87, 883-890.
- Leung D.Y.C., Luo Y. and Chan T.L. (2006) Optimization of exhaust emissions of a diesel engine fuelled with biodiesel. *Energy & Fuel*, 20, 1015-1023.
- Li J., Yue Z.Q. and Wong S.C. (2004) The performance evaluation of signalized urban intersections under mixed traffic conditions by grey system theory. *ASCE Journal of Transportation Engineering*, 130, 113-121.
- Li J.L.M., Wong S.C., Loo B.P.Y. and Hau T.D. (2007) Preliminary findings on empirical analysis of work trip scheduling in Hong Kong. *Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp 69-77.
- Li Z.C., Huang H.J., Lam W.H.K. and Wong S.C. (2007) A model for evaluation of transport policies in multimodal networks with road and parking capacity constraints. *Journal of Mathematical Modelling and Algorithms*, 6, 239-257.
- Li Z.C., Huang H.J., Lam W.H.K. and Wong S.C. (2007) Optimization of time-varying parking charges and parking supply in networks with multiple user classes and multiple parking facilities. *Tsinghua Science and Technology*, 12, 167-177.
- Li Z.C., Huang H.J., Lam W.H.K. and Wong S.C. (2007) Time-differential pricing of road tolls and parking charges in a transport network with elastic demand. In R.E. Allsop, M.G.H. Bell and B.G. Heydecker (eds.), *Transportation and Traffic Theory 2007*, Elsevier Ltd., pp 55-85. (ISBN: 978-0-08-045375-0)
- Li Z.C., Lam W.H.K. and Wong S.C. (2007) Modeling the effects of the number of operators in a deregulated transit market. *Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp 641-650.
- Li Z.C., Lam W.H.K., Huang H.J., Wong S.C. and Tam M.L. (2004) Analysis of parking choice: An activity-based approach. *Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies*, 11 December, Hong Kong, pp 292-301.
- Li Z.C., Lam W.H.K., Wong S.C. and Zhu D.L. (2006) Modeling travel choice problems in a multimodal elastic demand transportation network with park-and-ride trips. *Proceedings of the Eleventh International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp 195-204.
- Li Z.C., Lam W.H.K., Wong S.C., Zhu D.L. and Huang H.J. (2007) Modeling park-and-ride services in a multimodal transport network with elastic demand. *Transportation Research Record*, 1994, 101-109.
- Liu C.H. and Leung D.Y.C. (2006) Finite element solution to passive scalar transport behind line sources under neutral and unstable stratification. *International Journal for Numerical Methods in Fluid*, 50, 623-648.

- Liu H.S. and Pang G.K.H. (2003) Positioning beacon system using digital camera and LEDs. *IEEE Transactions on Vehicular Technology*, 52, 406-419.
- Lo H.K. and Wong S.C. (2004) Editorial, Special Issue: Emerging techniques for urban transportation planning. *ASCE Journal of Urban Planning and Development*, 130, 1.
- Loo B.P.Y. (2003) Development of inter-modal freight transportation in China's railway sector: opportunities and constraints. Paper presented at the 99th Annual Meeting of the Association of American Geographers, 5-8 March, New Orleans, USA.
- Loo B.P.Y. (2003) Internet development in China: geographic distribution of internet production and consumption. *GIM International*, 17, 68-71.
- Loo B.P.Y. (2003) The rise of a digital community in the People's Republic of China. *Journal of Urban Technology*, 10, 1-21.
- Loo B.P.Y. (2003) Tunnel traffic and toll elasticities in Hong Kong: some recent evidence for international comparisons. *Environment and Planning A*, 35, 249-276.
- Loo B.P.Y. (2004) Export expansion in the People's Republic of China since 1978: a case study of the Pearl River Delta. *China Quarterly*, 177, 133-154.
- Loo B.P.Y. (2004) Telecommunications reforms in China: towards an analytical framework. *Telecommunications Policy*, 28, 697-714.
- Loo B.P.Y. (2004) The Chinese information and telecommunications technology infrastructure: who built it and for whom? In Richard Hanley (ed.) *Moving People, Goods and Information in the 21st Century*, Routledge, London and New York, pp. 143-158.
- Loo B.P.Y. (2004) West Rail and the local communities of Tin Shui Wai, Tuen Mun and Yuen Long. *Newsletter for the Chartered Institute of Logistics & Transport in Hong Kong* 18 (Jul.-Sep., 2004).
- Loo B.P.Y. (2005) The Redistribution of Container Truck Traffic among Different Land-based Customs Check-points after the Opening of the Shenzhen Western Corridor. Interim Report, a research project funded by Route 3 (CPS) Co. Ltd.
- Loo B.P.Y. (2005) The spatial patterns of internet consumption and production in China. Paper presented at the 2005 Annual Meeting of the Association of American Geographers, 5-9 April, Denver, USA.
- Loo B.P.Y. (2006) A spatial analysis of crashes in Hong Kong. Invited paper presented at the Second International Symposium on Road Safety (ISRS' 2006), 5 August, , Hong Kong.
- Loo B.P.Y. (2006) The spatiality of internet development in the Asia-Pacific region. Paper presented at the Annual Meeting of the International Geographical Union (IGU) Commission on the Geography of the Information Society, 24-30 June, Sydney, Australia.
- Loo B.P.Y. (2006) Validating crash locations for quantitative spatial analysis: a GIS-based approach. *Accident Analysis and Prevention*, 38, 879-886.
- Loo B.P.Y. (2007) Opportunities and constraints of teleworking in Hong Kong. Paper presented at the Digital Communities 2007, 8-12 July, Tallinn (Estonia) and Helsinki (Finland).
- Loo B.P.Y. (2007) Paratransit in high-income economies: how and why did residents' coach services thrive in Hong Kong? Paper presented at the 11th World Conference on Transport Research (WCTR), 24-28 June, Berkeley, California, USA.
- Loo B.P.Y. (2007) Should senior secondary school students be asked to conduct surveys for school-based assessment? Invited lecture at the Annual Seminar of the Hong Kong Geographical Association, 28 April, Hong Kong.
- Loo B.P.Y. (2007) Strategies of internet development in the Asia-Pacific region. *Journal of Urban Technology*, 14, 3-22.
- Loo B.P.Y. (2007) The redistribution of container truck traffic among different land-based customs check-points after the opening of the Shenzhen Western Corridor. Final Report, a research project funded by Route 3 (CPS) Co. Ltd.
- Loo B.P.Y. (2007) The role of paratransit: some reflections based on the experience of residents' coach services in Hong Kong. *Transportation*, 34, 471-486.
- Loo B.P.Y. and Chan E.T.H. (2007) West Rail and the modal hierarchy in Hong Kong: some preliminary findings. *Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp. 633-640.
- Loo B.P.Y. and Chow A.S.Y. (2006) Hong Kong in the age of sprawl: what are the changing urban form and transportation challenges? Paper presented at the 102nd Annual Meeting of the Association of American Geographers, 7-11 March, Chicago, Illinois, USA.
- Loo B.P.Y. and Chow A.S.Y. (2006) The geography of commuting in Hong Kong: what are challenges on sustainable transport? *Proceedings of the Eleventh International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp. 69-77.

- Loo B.P.Y. and Chow A.S.Y. (2006) Travel characteristics of residents in three sprawl areas of Hong Kong: what lessons can we learn? Paper presented at the 11th International Conference on Travel Behaviour Research (IATBR): The Expanding Sphere of Travel Behaviour Research, 16-20 August, Kyoto, Japan.
- Loo B.P.Y. and Chow A.S.Y. (2007) Travel behaviour, urban form and transport policies: a comparative study of Hong Kong and Taipei. Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies, 8-10 December, Hong Kong, pp. 487-498.
- Loo B.P.Y. and Chow S.Y. (2005) Travel characteristics of residents living in Shatin: how do they differ from the rest of the city? What are the implications on sustainable urban transport?" Proceedings of the Tenth International Conference of Hong Kong Society for Transportation Studies, 10 December, Hong Kong, pp. 578-588.
- Loo B.P.Y. and Chow S.Y. (2006) China's 1994 tax-sharing reforms: one system, differential impact. *Asian Survey*, 46, 215-237.
- Loo B.P.Y. and Chow S.Y. (2006) Sustainable urban transportation: concepts, policies and methodologies. *ASCE Journal of Urban Planning and Development*, 132, 76-79.
- Loo B.P.Y. and Lam S.W.K. (2003) Eds. *Transportation and Logistics: Proceedings of the 8th Conference of Hong Kong Society for Transportation Studies, 13th-14th December, 2003* (Hong Kong: Hong Kong Society for Transportation Studies, 2003). (ISBN: 988-97488-1-9) (Visit the Society's website at <http://home.netvigator.com/~hksts/index.html>)
- Loo B.P.Y. and Lam S.W.K. (2005) Editorial: Special Issue on Some Recent Advances in Transportation Studies, *Transportmetrica*, 1, 1-2.
- Loo B.P.Y. and Lam S.W.K. (2005) Guest Editors. *Transportmetrica: Special Issue on Some Recent Advances in Transportation Studies* 1, no. 1 (Special issue editors).
- Loo B.P.Y. and Lam W.W.Y. (2007) Railway-based transit-oriented development in Hong Kong: factors affecting its success. Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies, 8-10 December, Hong Kong, pp. 655-664.
- Loo B.P.Y. and Li D.Y.N. (2006) Developing metro systems in the People's Republic of China: policy and gaps. *Transportation*, 33, 115-132.
- Loo B.P.Y. and Liu K. (2005) A geographical analysis of potential railway load centers in China. *Professional Geographer*, 57, 558-579.
- Loo B.P.Y. and Tsui K.L. (2007) Age as a risk factor in pedestrian traffic injury. Paper presented at the Australasian Road Safety Research Policing and Education Conference, 17-19 October Melbourne, Australia.
- Loo B.P.Y. and Tsui K.L. (2007) Factors affecting the likelihood of reporting road crashes resulting in medical treatment to the police. *Injury Prevention*, 13, 186-189.
- Loo B.P.Y. and Tsui M.K. (2004) Pedestrian safety in Hong Kong: trends and spatial patterns. Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies, 11 December, Hong Kong, pp. 128.
- Loo B.P.Y. and Tsui M.K. (2005) Pedestrians' crossing behaviour in Hong Kong. Proceedings of the Tenth International Conference of Hong Kong Society for Transportation Studies, 10 December, Hong Kong, pp. 471-480.
- Loo B.P.Y. and Tsui M.K. (2005) Temporal-spatial patterns of pedestrian accidents in commercial/business areas: a case study of Hong Kong. Paper presented at the Australasian Road Safety Research, Policing and Education Conference, November, Wellington, New Zealand.
- Loo B.P.Y. and Tsui M.K. (2007) Temporal and spatial patterns of vehicle-pedestrian crashes in busy commercial and shopping areas: a case study of Hong Kong. *Asian Geographer*, 24, 113-128.
- Loo B.P.Y., Ho H.W. and Wong S.C. (2005) An application of the continuous equilibrium modelling approach in understanding the geography of air passenger flows in a multi-airport region. *Applied Geography*, 25, 169-199.
- Loo B.P.Y., Hung W.T., Lo H.K. and Wong S.C. (2005) Road safety strategies: a comparative framework and case studies. *Transport Reviews*, 25, 613-639.
- Loo B.P.Y., Lai P.C. and Lin H. (2006) Integrating Transportation and Geographic Information Systems: A Problem-solving Approach: Module One: Transport Network. Hong Kong: Institute of Space and Earth Information Science, The Chinese University of Hong Kong. (ISBN-13: 978-988-98785-2-8/ISBN-10: 988-98785-2-6).
- Loo B.P.Y., Lai P.C. and Lin H. (2006) Integrating Transportation and Geographic Information Systems: A Problem-solving Approach: Module Two: Location-allocation. Hong Kong: Institute of

- Space and Earth Information Science, The Chinese University of Hong Kong. (ISBN-13: 978-988-98785-3-5/ISBN-10: 988-98785-3-4).
- Loo B.P.Y., Lai P.C. and Lin H. (2006) Integrating Transportation and Geographic Information Systems: A Problem-solving Approach: Module Three: Regional Logistics. Hong Kong: Institute of Space and Earth Information Science, The Chinese University of Hong Kong. (ISBN-13: 978-988-98785-4-2/ISBN-10: 988-98785-4-2).
- Loo B.P.Y., Lai P.C. and Lin H. (2006) Integrating Transportation and Geographic Information Systems: A Problem-solving Approach: Module Four: Pre-trip Information. Hong Kong: Institute of Space and Earth Information Science, The Chinese University of Hong Kong. (ISBN-13: 978-988-98785-5-9/ISBN-10: 988-98785-5-0).
- Loo B.P.Y., Lai P.C. and Lin H. (2006) Integrating Transportation and Geographic Information Systems: A Problem-solving Approach: Questions and Answers Handbook. Hong Kong: Institute of Space and Earth Information Science, The Chinese University of Hong Kong. (ISBN-13: 978-988-98785-6-6/ISBN-10: 988-98785-6-9).
- Loo B.P.Y., Leung B.S.Y., Wong S.C. and Yang H. (2007) Taxi license premiums in Hong Kong: can their fluctuations be explained by taxi as a mode of public transport? *International Journal of Sustainable Transportation*, 1, 249-266.
- Loo B.P.Y., Wong S.C. and Hau T.D. (2006) Introducing alternative fuel vehicles in Hong Kong: views from the public light bus industry. *Transportation*, 33, 605-619.
- Loo B.P.Y., Wong S.C., Hung W.T. and Lo H.K. (2007) A review of the road safety strategy in Hong Kong. *Journal of Advanced Transportation*, 41, 3-37.
- Lu F. and Lai P.C. (2006) A shortest path algorithm based on limited search heuristics. In D. Grigoriev, J. Harrison and E.A. Hirsh (eds.) *CSR 2006, Lecture Notes in Computer Science*, Berlin: Springer-Verlag, 3967, pp. 487-497.
- Mak S.H., Yip K.M. and Lai P.C. (2005) Developing a city skyline for Hong Kong using GIS and urban design guidelines. *URISA Journal*, 17, 33-42.
- MVA Hong Kong Limited (with Becky P.Y. Loo as a consultancy team member providing paid sub-consultancy services) (2004) Study of Air Travel Demand in Guangdong and Hong Kong International Airport's Surface Transport Connectivity Strategy. Consultancy Report commissioned by the Airport Authority Hong Kong.
- Ngai D.C.K. and Yung N.H.C. (2005) Double action Q-learning for obstacle avoidance in a dynamically changing environment. *Proceedings of the 2005 IEEE Intelligent Vehicles Symposium*, Nevada, USA, pp. 211-216. (ISBN: 0-7803-8962-X)
- Ngai D.C.K. and Yung N.H.C. (2005) Performance evaluation of double action Q-learning in moving obstacle avoidance problem. *Proceedings of IEEE International Conference on Systems, Man and Cybernetics*, Piscataway, pp. 865-870. (ISBN: 0-7803-9299-X)
- Ngai D.C.K. and Yung N.H.C. (2007) Automated vehicle overtaking based on a multiple-goal reinforcement learning framework. *Proceedings of the IEEE ITSC*.
- Ngai D.C.K. and Yung N.H.C. (2007) Fast-maneuvering target seeking based on double-action Q-learning. *Proceedings of International Conference on Machine Learning and Data Mining in Pattern Recognition*, July, Leipzig, Germany, Springer Berlin Heidelberg, New York, pp. 653-666 (ISSN: 0302-9743; ISBN: 978-3-540-73498-7).
- Ngai D.C.K., Pang C.C.C. and Yung N.H.C. (2006) TUTTI: a time-centric multi-modal transit information system for Hong Kong. *Proceedings of the 8th Asia-Pacific ITS Forum*.
- Ngan H. and Pang G.K.H. (2006) A novel method for patterned fabric inspection using bollinger bands. *Optical Engineering*, 45.
- Ngan H., Pang G.K.H. and Yung N.H.C. (2007) Patterned fabric defect detection using a motif-based approach. *IEEE International Conference on Image Processing*, 16-19 September, San Antonio, Texas, USA.
- Ngan H., Pang G.K.H., Yung S.P. and Ng M. (2005) Wavelet based methods on patterned fabric defect detection. *Pattern Recognition*, 38, 559-576.
- Ngan H.Y.T. and Pang G.K.H. (2005) Comparison of methods for defect detection of patterned Jacquard fabric. *International Symposium on Collaborative Research in Applied Science*, 7-9 October, University of British Columbia.
- Ngan H.Y.T., Pang G.K.H. and Yung N.H.C. (2007) Motif-based defect detection for patterned fabric. *Pattern Recognition*, 41, 1878-1894.
- Ngan H.Y.T., Pang G.K.H. and Yung N.H.C. (2007) Patterned fabric defect detection using motif-based approach. *Proceedings of the IEEE ICIP*.

- Pang C.C., Lam W.L. and Yung N.H.C. (2004) A novel method for resolving vehicle occlusion in monocular traffic image sequence. *IEEE Transactions on Intelligent Transportation Systems*, 5, 129-141.
- Pang C.C.C. and Yung N.H.C. (2004) A methodology for determining the resolvability of multiple vehicle occlusion in a monocular traffic image sequence. *Proceedings of the SPIE on Applications of Digital Image Processing XXVII*, vol. 5558. (ISBN#:0-8194-5496-6)
- Pang C.C.C. and Yung N.H.C. (2007) A method for accurate vehicle count in the presence of multiple vehicle occlusions in traffic images. *IEEE Transactions on Intelligent Transportation Systems*, 8, 441-459.
- Pang C.C.C., Lam W.W.L., He X.C., Ngai C.K. and Yung N.H.C. (2004) Vehicle occlusion reasoning and resolvability from a sequence of traffic images. Invited paper, *Proceedings of the IEEE ITSC*. (ISBN: 0-7803-8501-2)
- Pang C.C.C., Tan Z.G. and Yung N.H.C. (2007) A methodology for resolving severely occluded vehicles based on component-based multi-resolution relational graph matching. *Proceedings of IEEE International Conference on Machine Vision*.
- Pang G.K.H. (2004) Experimental and simulation tools for nanostructures. ", *Proceedings of the First Asia International Symposium on Mechatronics (AISM 2004)*, 27-30 September, Xi'an, China, pp. 36-42.
- Pang G.K.H. (2004) Information technology based on visible LEDs for optical wireless communications. *TENCON 2004*, 21-24 November.
- Pang G.K.H. (2005) i.LIGHT: a novel communications technology based on visible light. *International Symposium on Collaborative Research in Applied Science*, 7-9 October, University of British Columbia.
- Pang G.K.H. and Chu M.H. (2007) Personalised route selection system in vehicle navigation based on neural-fuzzy technologies. *14th World Congress on Intelligent Transport Systems*, 9-13 October, Beijing, China.
- Pang G.K.H. and Chu M.H. (2007) Route selection for vehicle navigation and control. *The 33rd Annual Conference of the Industrial Electronics Society, IEEE IECON*, 5-8, November, Taipei, Taiwan.
- Pang G.K.H. and Chu M.H. (2007) Route selection for vehicle navigation and control. *Proceedings of the 5th IEEE International Conference on Industrial Informatics*, 23-26 July, Vienna, Austria.
- Pang G.K.H. and Ngan H. (2007) Patterned texture inspection by the regular bands method. *9th Asian Textile Conference*, 28-30 June, Feng-Chia University, Taiwan.
- Pang G.K.H. and Yang X. (2004) Minimum classification error-based neural network for inspection of fabric defects. *Proceedings of the IASTED International Conference on Neural Networks and Computational Intelligence*, 23-25 February, Grindelwald, Switzerland.
- Poon M.H., Tong C.O. and Wong S.C. (2003) Validation of a schedule-based capacity restraint transit assignment model for a large-scale network. *Journal of Advanced Transportation*, 38, 5-26.
- Poon M.H., Tong C.O. and Wong S.C. (2004) Confronting the challenges in this information age: towards a new transit modeling approach. *Hong Kong Institution of Engineers Transactions*, 11, 50-55.
- Poon M.H., Tong C.O. and Wong S.C. (2006) Frequency-based and schedule-based transit modeling approaches: current state, achievements and challenges. *Proceedings of the Eleventh International Conference of Hong Kong Society for Transportation Studies*, 8-10 December, Hong Kong, pp 727-736.
- Poon M.H., Wong S.C. and Tong C.O. (2004) A dynamic schedule-based model for congested transit networks. *Transportation Research Part B*, 38, 343-368.
- Shen W.X., Chau K.T., Chan C.C. and Lo E.W.C. (2005) Neural network-based residual capacity indicator for nickel-metal hydride batteries in electric vehicles. *IEEE Transactions on Vehicular Technology*, 54, 1705-1712.
- So F.M. and Lai P.C. (2007) Spatial epidemiology of asthma in Hong Kong. In P.C. Lai and A.S.H. Mak (eds.) *GIS for Health and the Environment: Development in the Asia-Pacific Region*, Lecture Notes in Geoinformation and Cartography, Berlin: Springer-Verlag, pp. 154-169.
- Sun L.Q. and Chan C.C. (2006) System integration and key components of electric vehicles in China. *22nd International Electric Vehicle Symposium (EVS-22)*, 25-28 October, Yokohama, CD-ROM.
- Sze N.N. and Wong S.C. (2007) Contributory factors to pedestrian injury in road accidents. Paper presented at the *Eleventh World Conference on Transport Research*, 24-28 June, Berkeley, California, USA.

- Sze N.N. and Wong S.C. (2007) Diagnostic analysis of the logistic model for pedestrian injury severity in traffic crashes. *Accident Analysis and Prevention*, 39, 1267-1278.
- Sze N.N., Wong S.C., Loo B.P.Y., Lo H.K. and Hung W.T. (2005) Contributory factors to road pedestrian accidents in Hong Kong. *Proceedings of the Tenth International Conference of Hong Kong Society for Transportation Studies*, 10 December, Hong Kong, pp 481-489.
- Tan M.C., Tong C.O., Wong S.C. and Xu J. (2007) An algorithm for finding reasonable paths in transit networks. *Journal of Advanced Transportation*, 41, 285-305.
- Tan Z.G., He X.C. and Yung N.H.C. (2006) A novel merging criterion incorporating boundary smoothness and region homogeneity for image segmentation. *Advances in Image and Video Technology, Lecture Notes in Computer Science*, Springer Berlin/Heidelberg, ISBN:978-3-540-68297-4, Vol. 4319/2006, pp.238-247.
- Tan Z.G., He X.C. and Yung N.H.C. (2006) A novel merging criterion incorporating boundary smoothness and region homogeneity for image segmentation. *Proceedings of IEEE Pacific-Rim Symposium on Image and Video Technology*.
- Tang B.C.K., Karl C. Jnr., Cheng P.S.H. and Yung N.H.C. (2003) Traffic information and services expectations in Hong Kong – findings from a survey of regular road users. *Proceedings of the 10th ITS World Congress*.
- Tang T.Q., Huang H.J., Gao Z.Y. and Wong S.C. (2007) Interactions of waves in the speed-gradient traffic flow model. *Physica A*, 380, 481-489.
- Tang T.Q., Huang H.J., Wong S.C. and Jiang R. (2007) Lane changing analysis for two-lane traffic flow. *Acta Mechanica Sinica*, 23, 49-54.
- Tang T.Q., Huang H.J., Wong S.C. and Xu X.Y. (2007) A new overtaking model and numerical tests. *Physica A*, 376, 649-657.
- Tong C.O. and Wong S.C. (2004) Minimum path algorithms for a schedule-based transit network with a general fare structure. In N.H.M. Wilson and A. Nuzzolo (eds.), Chapter 13, *Schedule-Based Dynamic Transit Modeling - Theory and Applications*. Kluwer Academic Publishers, Boston, USA, pp 241-261. (ISBN: 1-4020-7687-8)
- Tong C.O., Hung W.T., Lam W.H.K., Lo H.K., Lo H.P., Wong S.C. and Yang H. (2003) A new survey methodology for the annual traffic census in Hong Kong. *Traffic Engineering and Control*, 44, 214-218.
- Tong C.O., Wong S.C. and Lau W.W.T. (2003) A demand-supply equilibrium model for parking services in Hong Kong. Paper presented at the Civil Engineering Papers of the Year 2003 Awards, 6 May, Civil Division, The Hong Kong Institution of Engineers, Hong Kong (Research Prize)
- Tong C.O., Wong S.C. and Lau W.W.T. (2004) A demand-supply equilibrium model for parking services in Hong Kong. *Hong Kong Institution of Engineers Transactions*, 11, 48-53.
- Tong C.O., Wong S.C. and Leung B.S.Y. (2004) Estimation of parking accumulation profiles from survey data. *Transportation*, 31, 183-202.
- Wang K.C.P., Smith B.L., Uzarski D.R. and Wong S.C. (2006) *Proceedings of the Ninth International Conference on Applications of Advanced Technology in Transportation*, 13-16 August, Chicago, USA. (ISBN: 0-78-440799-1)
- Wang L. and Yung N.H.C. (2007) Extraction of moving human objects from their background using bi-thresholding and boundary evaluation. *Proceedings of IASTED International Conference on Signal and Image Processing*, pp. 522-527.
- Wong C.K. and Wong S.C. (2003) A lane-based optimization method for minimizing delay at isolated signal-controlled junctions. *Journal of Mathematical Modelling and Algorithms*, 2, 379-406.
- Wong C.K. and Wong S.C. (2003) Lane-based optimization of signal timings for isolated junctions. *Transportation Research Part B*, 37, 63-84.
- Wong C.K., Wong S.C. and Tong C.O. (2003) Lane-based optimization method for multi-period analysis of isolated signal-controlled junctions. *Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies*, 13-14 December, Hong Kong, pp 406-409.
- Wong C.K., Wong S.C. and Lo H.K. (2004) A steady-state cell transmission model for signal coordination in work zones. *Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies*, 11 December, Hong Kong, pp 547-556.
- Wong C.K., Wong S.C. and Lo H.K. (2005) A steady-state cell transmission model for signal coordination in work zones. Paper presented at the Fourth IMA International Conference on Mathematics in Transport, 7-9 July, London, UK.

- Wong C.K., Wong S.C. and Lo H.K. (2006) A spatial queuing approach to optimize coordinated signal settings to obviate gridlock in adjacent work zones. Invited presentation at the Second International Conference on Transport and Logistics Systems, 21-22 August, Colombo, Sri Lanka.
- Wong C.K., Wong S.C. and Lo H.K. (2007) A cell transmission model for signal timing optimisation in work zones. In B.G. Heydecker (ed.), Chapter 22, Mathematics in Transport, Elsevier Ltd., pp 307-319. (ISBN: 978-0-08-045092-6)
- Wong C.K., Wong S.C. and Lo H.K. (2007) Reserve capacity of a signal-controlled network considering the effect of physical queuing. In R.E. Allsop, M.G.H. Bell and B.G. Heydecker (eds.), Transportation and Traffic Theory 2007, Elsevier Ltd., pp 533-553. (ISBN: 978-0-08-045375-0)
- Wong C.K., Wong S.C. and Tong C.O. (2005) Optimization methods for off-line traffic signal settings: Recent advances and prospective future research. Journal of Transportation Systems Engineering and Information Technology, 5, 36-54.
- Wong C.K., Wong S.C. and Tong C.O. (2005) The advantages of the multi-period lane-based optimization method for traffic signal design. Proceedings of the 6th International Conference of Eastern Asia Society for Transportation Studies, 21-24 September, Bangkok, Thailand, pp 1358-1366.
- Wong C.K., Wong S.C. and Tong C.O. (2006) A lane-based optimization method for the multi-period analysis of isolated signal-controlled junctions. Transportmetrica, 2, 53-85.
- Wong D.S.T., Tong C.O. and Wong S.C. (2003) Valuation of factors influencing drivers' choice of car parks by using stated preference surveys. Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies, 13-14 December, Hong Kong, pp 51.
- Wong J., Lam W.H.K., Wong S.C. and Ho H.W. (2006) Proceedings of the Eighth Asia-Pacific Intelligent Transport Systems Forum, 10-13 July, Hong Kong. (CD ROM)
- Wong K.I., Wong S.C., Bell M.G.H. and Yang H. (2004) Modeling the bilateral micro-searching behavior for urban taxi services using the absorbing Markov chain approach. Proceedings of the International Workshop on Behavior in Networks, 22-23 July, Seoul, South Korea, pp 201-210.
- Wong K.I., Wong S.C., Bell M.G.H. and Yang H. (2005) Modeling the bilateral micro-searching behavior for urban taxi services using the absorbing Markov chain approach. Journal of Advanced Transportation, 39, 81-104.
- Wong K.I., Wong S.C., Tong C.O., Lam W.H.K., Lo H.K., Yang H. and Lo H.P. (2005) Estimation of origin-destination matrices for a multimodal public transit network. Journal of Advanced Transportation, 39, 139-168.
- Wong K.I., Wong S.C., Wu J.H., Yang H. and Lam W.H.K. (2004) A combined distribution, hierarchical mode choice, and assignment network model with multiple user and mode classes. In D.H. Lee (ed.), Chapter 2, Urban and Regional Transportation Modeling: Essays in Honor of David Boyce. Edward Elgar Publishing Inc., Northampton, USA, pp 25-42. (ISBN: 1-84376-306-0)
- Wong K.I., Wong S.C., Yang H. and Tong C.O. (2003) The effect of perceived profitability on the level of taxi service in remote areas. Journal of the Eastern Asia Society for Transportation Studies, 5, 79-94.
- Wong K.I., Wong S.C., Yang H. and Wu J.H. (2004) Modeling urban taxi services with multiple user classes and vehicle modes. Invited paper, Proceedings of the Croucher Advanced Study Institute (ASI) on Advanced Modeling for Transit Supply and Passenger Demand, 19-20 January, Hong Kong, pp A1.1-A1.28.
- Wong K.I., Wong S.C., Yang H. and Wu J.H. (2007) Modeling urban taxi services with multiple user classes and vehicle modes. Paper presented at the Eleventh World Conference on Transport Research, 24-28 June, Berkeley, California, USA.
- Wong S.C. (2003) Recent advances in optimization of signal settings for area traffic control. Keynote speaker at the International Symposium on Transportation Science and Engineering for Global Chinese Scholars, 27-30 August, Beijing, China.
- Wong S.C. (2004) Before and after study on the pilot standard autotoll arrangement in Hong Kong. Invited plenary presentation at the 2004 Beijing International Intelligent Traffic Forum, 18-20 April, Beijing, China.
- Wong S.C. (2007) Lane-based optimization of signal settings for traffic equilibrium networks. Keynote speaker at the CAI Symposium 2007 on Intelligent Facility Management and Intelligent Transport, 28 March, Hong Kong.
- Wong S.C. and Bandara J.M.S.J. (2007) Editorial, Special Issue: Road safety. Journal of Advanced Transportation, 41, 1-2.
- Wong S.C. and Lam W.H.K. (2006) Editorial, Special Issue: Planning and policy of public transportation systems in Asia. Transportation, 33, 111-113.

- Wong S.C. and Lo H.K. (2004) Editorial, Special Issue: Advanced algorithms in traffic signal control. *Journal of Intelligent Transportation Systems*, 8, 61-62.
- Wong S.C. and Tong C.O. (2003) The estimation of origin-destination matrices in transit networks. In W.H.K. Lam and M.G.H. Bell (eds.), Chapter 11, *Advanced Modeling for Transit Operations and Service*. Elsevier Science Ltd., pp 287-313. (ISBN: 0-08-044206-4)
- Wong S.C., Chootinan P. and Chen A. (2004) A reliability-based network design problem. Keynote speaker at the International Conference on Application of Information and Communication Technology in Transport Systems in Developing Countries, 5-7 August, Sri Lanka.
- Wong S.C., Du Y.C. and Sun L.J. (2007) A multi-commodity discrete/continuous model for a traffic equilibrium system. Paper presented at the Eleventh World Conference on Transport Research, 24-28 June, Berkeley, California, USA.
- Wong S.C., Du Y.C., and Sun L.J. (2004) A simultaneous optimization formulation of a discrete/continuous transportation system. Invited plenary presentation at the Workshop on Theory and Practice of Transportation Science, 18-19 December, Shanghai, China.
- Wong S.C., Du Y.C., Ho H.W. and Sun L.J. (2003) Simultaneous optimization formulation of a discrete/continuous transportation system. *Transportation Research Record*, 1857, 11-20.
- Wong S.C., Du Y.C., Sun L.J. and Loo B.P.Y. (2006) Sensitivity analysis for a continuum traffic equilibrium problem. *Annals of Regional Science*, 40, 493-514.
- Wong S.C., Hau T.D., Wang J.J., Chau K.W. and Ho H.W. (2006) Proceedings of the Eleventh International Conference of Hong Kong Society for Transportation Studies, 9-11 December, Hong Kong. (ISBN: 978-988-98847-0-3)
- Wong S.C., Leung B.S.Y., Loo B.P.Y., Hung W.T. and Lo H.K. (2004) A qualitative assessment methodology for road safety policy strategies. *Accident Analysis and Prevention*, 36, 281-293.
- Wong S.C., Loo B.P.Y., Hung W.T., Lo H.K. (2003) Before and after study on the "Pilot Standard Autotoll Arrangement at Lion Rock Tunnel", Invited presentation at the Road Safety Research Committee, The Government of Hong Kong SAR, 3 December, Hong Kong.
- Wong S.C., Sze N.N. and Li Y.C. (2007) Traffic crashes at signalized intersections. Paper presented at the Twelfth International Conference of Hong Kong Society for Transportation Studies, 8-10 December, Hong Kong.
- Wong S.C., Sze N.N. and Li Y.C. (2007) Contributory factors to traffic crashes at signalized intersections in Hong Kong. *Accident Analysis and Prevention*, 39, 1107-1113.
- Wong S.C., Sze N.N., Hung W.T., Loo B.P.Y. and Lo H.K. (2006) The effects of a traffic guidance scheme for auto-toll lanes on traffic safety at toll plazas. *Safety Science*, 44, 753-770.
- Wong S.C., Sze N.N., Lo H.K., Hung W.T. and Loo B.P.Y. (2004) The effects of speed limit relaxation on road safety in Hong Kong. Proceedings of the Ninth Conference of Hong Kong Society for Transportation Studies, 11 December, Hong Kong, pp 320-329.
- Wong S.C., Sze N.N., Lo H.K., Hung W.T. and Loo B.P.Y. (2005) Would relaxing speed limits aggravate safety? A case study of Hong Kong. *Accident Analysis and Prevention*, 37, 377-388.
- Wong S.C., Sze N.N., Yip H.F., Loo B.P.Y., Hung W.T. and Lo H.K. (2006) Association between setting quantified road safety targets and road fatality reduction. *Accident Analysis and Prevention*, 38, 997-1005.
- Wong S.C., Sze N.N., Yip H.F., Loo B.P.Y., Hung W.T. and Lo H.K. (2006) Quantified road safety target and road fatality reduction. Paper presented at the 22nd ARRB Conference, 29 October – 2 November, Canberra, Australia.
- Wong S.C., Tong C.O., Wong K.I., Lam W.H.K., Lo H.K., Yang H. and Lo H.P. (2005) Estimation of multi-class origin-destination matrices from traffic counts. *ASCE Journal of Urban Planning and Development*, 131, 19-29.
- Wong S.C., Xu J. and Chen J. (2003) Solving a dynamic warehousing problem using a genetic algorithm. *Hong Kong Institution of Engineers Transactions*, 10, 34-40.
- Wong S.C., Yang H. and Lam W.H.K. (2005) Editorial, Special Issue: Transportation science and engineering. *Journal of Transportation Systems Engineering and Information Technology*, 5 (3), 92.
- Wong S.C., Zhou C.W., Lo H.K. and Yang H. (2004) An improved solution algorithm for the multi-commodity continuous distribution and assignment model. *ASCE Journal of Urban Planning and Development*, 130, 14-23.
- Wong W.T., Wong S.C. and Tong C.O. (2003) Sheared delay formulae for TRANSYT traffic model: review and calibration. *Transport Reviews*, 23, 1-20.

- Wong Y.S., Chan C.C., Chan M.S.W. and Ching T.W. (2005) Maximization of economic benefits of electric and hybrid vehicles. Proceedings of 21st International Electric Vehicle Symposium (EVS-21), 2-6 April, Monaco, CD-ROM.
- Wong Y.S., Chau K.T. and Chan C.C. (2003) Optimal subsidizing policy to promote electric vehicles in Hong Kong. *Journal of Asian Electric Vehicles*, 1, 479-482.
- Wong Y.S., Chau K.T. and Chan C.C. (2006) Battery evaluation and sizing for plug-in hybrid electric vehicles. 22nd International Electric Vehicle Symposium (EVS-22), 25-28 October, Yokohama, CD-ROM.
- Wong Y.S., Chau K.T., Chan M.S.W. and Chan C.C. (2003) Cost analysis for implementation of electric vehicles in Hong Kong. Proceedings of 20th International Electric Vehicle Symposium (EVS-20), November, California, USA, CD-ROM, pp. 1-9.
- Xia J., Leung D.Y.C. and Hussaini, M.Y. (2006) Numerical simulations of flow-fields interactions between moving and stationary objects in idealized street canyon settings. *Journal Fluids and Structures*, 22, 315-326.
- Xia Y., Huang L., Wong S.C., Zhang M., Shu C.W. and Lam W.H.K. (2007) The follow-the-crowd effect in a pedestrian flow model. Proceedings of the Twelfth International Conference of Hong Kong Society for Transportation Studies, 8-10 December, Hong Kong, pp 309-317.
- Xie X., Liu C.H. and Leung D.Y.C. (2007) Impact of building facades and ground heating on wind flow and pollutant transport in street canyons. *Atmospheric Environment*, 41, 9030-9049.
- Xu R.Y., Zhang P., Dai S.Q. and Wong S.C. (2007) Admissibility of a wide cluster solution in "anisotropic" higher-order traffic flow models. *SIAM Journal on Applied Mathematics*, 68, 562-573.
- Yang H., Leung C.W.Y., Bell M.G.H. and Wong S.C. (2003) Equilibrium of bilateral taxi-customer searching and meeting on networks. Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies, 13-14 December, Hong Kong, pp 352-360.
- Yang H., Ye M., Tang W.H. and Wong S.C. (2003) Modeling urban taxi services: a literature survey and an analytical example. In W.H.K. Lam and M.G.H. Bell (eds.), Chapter 10, *Advanced Modeling for Transit Operations and Service*. Elsevier Science Ltd., pp 257-286. (ISBN: 0-08-044206-4)
- Yang H., Ye M., Tang W.H. and Wong S.C. (2005) Regulating taxi services in the presence of congestion externality. *Transportation Research Part A*, 39, 17-40.
- Yang H., Ye M., Tang W.H.C. and Wong S.C. (2005) A multi-period dynamic model of taxi services with endogenous service intensity. *Operations Research*, 53, 501-515.
- Yang X.Z., Pang G.K.H. and Yung N.H.C. (2004) Discriminative training approaches to fabric defect classification based on wavelet transform. *Pattern Recognition*, 37, 889-899.
- Yang X.Z., Pang G.K.H. and Yung N.H.C. (2005) Robust fabric defect detection and classification using multiple adaptive wavelets. *IEE Proceedings in Vision, Image & Signal Processing*, 152, 715-723.
- Ye M., Yang H., Tang W.H. and Wong S.C. (2003) Regulating taxi services in the presence of congestion externality. Proceedings of the Eighth Conference of Hong Kong Society for Transportation Studies, 13-14 December, Hong Kong, pp 201-210.
- Yeh A.G.O., Lai P.C., Wong S.C. and Yung N.H.C. (2004) The architecture for a real-time traffic and multimedia Internet geographic information system. *Environment and Planning B*, 31, 349-366.
- Yim K.K.W., Wong S.C., Chen A. and Wong C.K. (2007) A reliability-based land use and transportation optimization model. Invited presentation at the International Seminar on Land Use and Transportation, 16 March, Seoul, Korea.
- Yim K.W. and Wong S.C. (2004) Implementation of an origin-based algorithm for a combined distribution and assignment model. Paper presented at the Ninth Conference of Hong Kong Society for Transportation Studies, 11 December, Hong Kong.
- Yin X.L., Chang J., Wang J.F., Fu Y., Wu C.Z. and Leung D.Y.C. (2005) Experimental study of methanol synthesis from biomass derived syngas. *Acta Energiæ Solaris Sinica*, 26, 518-522.
- Yin X.L., Leung D.Y.C., Chang J., Wang J.F., Fu Y. and Wu C.Z. (2005) Characteristics of the synthesis of methanol using biomass derived syngas. *Energy & Fuels*, 19, 305-310.
- Yue Y. and Yeh A.G.O. (2004) Determining optimal critical junctions for real-time traffic monitoring for transport GIS. In Peter Fisher (ed.), *Developments in Spatial Data Handling*, Springer Verlag, Berlin, pp. 447-458.
- Yung N.H.C. (2003) Autotoll traffic information service trial. Delivered to Metro Radio Hong Kong Ltd, March.

- Yung N.H.C. (2003) Expert report on the accuracy and reliability of the TRAFFIPAX TraffiPhot III-SR System. Expert report for Edward Keller Ltd.
- Yung N.H.C. (2003) Expert report on the accuracy and reliability of the MULTANOVA speed measuring system. Expert report for Parking Systems Ltd.
- Yung N.H.C. (2003) Location fixing methods for mobile phones. Delivered at the Workshop on Location Fixing Technologies, March, Institute of Transport Studies, HKU.
- Yung N.H.C. (2003) Quality life – enlightened by science. Delivered at the 37th Joint School Science Exhibition, 20 November.
- Yung N.H.C. (2004) Fantasy – amusement in science. Delivered at the 38th Joint School Science Exhibition, 22 December.
- Yung N.H.C. (2004) MultaRadar 車速量度系統的準確性及可靠性擬備的專家報告. Expert report for Parking Systems Ltd.
- Yung N.H.C. (2004) Region-based route planning for fleet operations. Delivered at the Intelligent Transport Systems Forum 2004, Intelligent Transport System (ITS) in Logistics, Part 2, April.
- Yung N.H.C. (2004) TRAFFIPAX TraffiPhot III-SR 系統的準確性及可靠性擬備的專家報告. Expert report for Edward Keller Ltd.
- Yung N.H.C. (2004) Vehicle speed measurement using cross ratio – GC7665. Expert report for Parking Systems Ltd, November.
- Yung N.H.C. (2004) Vehicle speed measurement using cross ratio – HB5648. Expert report for Parking Systems Ltd, November.
- Yung N.H.C. (2004) Vehicle speed measurement using cross ratio – HW9945. Expert report for Parking Systems Ltd, November.
- Yung N.H.C. (2004) Vehicle speed measurement using cross ratio – ET3822. Expert report for Parking Systems Ltd, December.
- Yung N.H.C. (2005) Some recent research results in ITS at the University of Hong Kong. Delivered to the Surrey County Council, Surrey, UK, February.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – LE5722. Expert report for Parking Systems Ltd, January.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – LH1080. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – LG473. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – DS8900. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – LE1729. Expert report for Parking Systems Ltd, June.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – KP3019. Expert report for Parking Systems Ltd, June.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – DS8900 (2). Expert report for Parking Systems Ltd, July.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – JV5293. Expert report for Parking Systems Ltd, September.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – GL6001. Expert report for Parking Systems Ltd, October.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – HS367. Expert report for Parking Systems Ltd, October.
- Yung N.H.C. (2005) Vehicle speed measurement using cross ratio – KL6420. Expert report for Parking Systems Ltd, November.
- Yung N.H.C. (2006) Evaluation of automatic self monitoring device by Samsonic Co., Ltd, Consulting report for Electrical and Mechanical Services Department, HKSAR Government.
- Yung N.H.C. (2006) Expert report on the accuracy and reliability of the TRAFFIPAX TraffiPhot III-SR (2M) System. Expert report for Edward Keller Ltd, February.
- Yung N.H.C. (2006) Expert report on the accuracy and reliability of the TRAFFIPAX Traffistar SR520 System. Expert report for Edward Keller Ltd, June.
- Yung N.H.C. (2006) Expert report on the accuracy and reliability of wired and wireless data communication between the TRAFFIPAX TraffiPhot III-SR (2M) and a data center. Expert report for the Electrical and Mechanical Services Department, HKSAR Government.
- Yung N.H.C. (2006) Expert report on the accuracy and reliability of MultaRadar C Speed Enforcement System. Expert report for Parking Systems Ltd, December.

- Yung N.H.C. (2006) Inspection report on the installation and operation of the MultaRadar C Speed Enforcement System. Expert report for Parking Systems Ltd, September.
- Yung N.H.C. (2006) Validation Report on the Front-End Mobile Unit and Back-End Control Center designed and developed by mCommerce Online Limited for Real-Time Tracking and Monitoring of Vessels on Dumping Activities, Consulting report for mCommerce Online Ltd, January.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – KP1886. Expert report for Parking Systems Ltd, March.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – KN8015. Expert report for Parking Systems Ltd, March.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – GJ877. Expert report for Parking Systems Ltd, March.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – KV239. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – HS1183. Expert report for Parking Systems Ltd, June.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – KC3019. Expert report for Parking Systems Ltd, June.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – JT137. Expert report for Parking Systems Ltd, August.
- Yung N.H.C. (2006) Vehicle speed measurement using cross ratio – MD8294. Expert report for Parking Systems Ltd, August.
- Yung N.H.C. (2007) Evaluation report on the accuracy and reliability of the front-end mobile unit and the operation of its data center. Evaluation report for mSolution Consultants Limited, June.
- Yung N.H.C. (2007) Expert advice on issues pending resolution – R8 TCSS SEC Subsystem. Expert report for Highways Department, Government of the HKSAR, April.
- Yung N.H.C. (2007) Expert advice on the modifications and improvements of the proposed R8 TCSS SEC Subsystem. Expert report for Highways Department, Government of the HKSAR, April.
- Yung N.H.C. (2007) Expert advice on the technical and operational capability of the proposed R8 TCSS SEC Subsystem. Expert report for Highways Department, Government of the HKSAR, April.
- Yung N.H.C. (2007) Expert report on the accuracy and reliability of the ProVida 2000 speed measuring system. Expert report for Hong Kong Police Force, Government of Hong Kong SAR, June.
- Yung N.H.C. (2007) Vehicle speed measurement using cross ratio – KG377. Expert report for Parking Systems Ltd, March.
- Yung N.H.C. (2007) Vehicle speed measurement using cross ratio – LE5722. Expert report for Parking Systems Ltd, March.
- Yung N.H.C. (2007) Vehicle speed measurement using cross ratio – JJ611. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2007) Vehicle speed measurement using cross ratio – GM4273. Expert report for Parking Systems Ltd, May.
- Yung N.H.C. (2007) Vehicle speed measurement using cross ratio – LL2597. Expert report for Parking Systems Ltd, May.
- Yung N.H.C., Leung K.K. and Lai H.S. (2003) Wireless purchase and on-line inventory apparatus and method for vending machines. US Patent No. 7,110,954.
- Zhang H., Liu K., Braun M. and Chan C.C. (2006) Study of the algorithm of real-time solution of selective harmonic controlling equations for PWM with low switching frequency. Proceeding of the Chinese Society for Electrical Engineering, Vol 26, No.24, November, pp 24-28.
- Zhang H., Liu K., Braun M., Chan C.C. (2006) Selective harmonic controlling for three-level high power active front end converter with low switching frequency. CES/IEEE 5th International Power Electronics and Motion Control Conference, 14-16 August, Shanghai, China, CD-ROM.
- Zhang H., Liu K.P., Braun M., Chan C.C. (2006) Novel partly unsymmetrical optimal PWM technique for high power inverters. Transactions of China Electrotechnical Society, 21, 17-22.
- Zhang M.P., Shu C.W., Wong G.C.K. and Wong S.C. (2003) A weighted essentially non-oscillatory numerical scheme for a multi-class Lighthill-Whitham-Richards traffic flow model. Journal of Computational Physics, 191, 639-659.
- Zhang P. and Wong S.C. (2006) Essence of conservation forms in the traveling wave solutions of higher-order traffic flow models. Physical Review E, 74, 026109.

- Zhang P., Liu R.X. and Wong S.C. (2005) High-resolution numerical approximation of traffic flow problems with variable lanes and free-flow velocities. *Physical Review E*, 71, 056704.
- Zhang P., Liu R.X., Wong S.C. and Dai S.Q. (2006) Hyperbolicity and kinematic waves of a class of multi-population partial differential equations. *European Journal of Applied Mathematics*, 17, 171-200.
- Zhang P., Wong S.C. and Dai S.Q. (2006) Characteristic parameters of a wide cluster in a higher-order traffic flow model. *Chinese Physics Letters*, 23, 516-519.
- Zhang P., Wong S.C. and Shu C.W. (2006) A weighted essentially non-oscillatory numerical scheme for a multi-class traffic flow model on an inhomogeneous highway. *Journal of Computational Physics*, 212, 739-756.
- Zheng D.Z.M., Wong S.C. and Ng S.T. (2004) A conceptual mix-integer model for establishing the leanness of construction supply. *Proceedings of the Third Scientific Conference on Project Management - Clustering in Construction Project Management*, 24-25 September, Aristotle University of Thessaloniki, Greece, pp 395-400.
- Zheng Z. and Lam W.H. (2003) An analytical method to compute capacity improvement of dynamic channel assignment with power control. *IEE Electronics Letter*, 39, 127-128.
- Zhu Z.F., Li K.C., Chan C.C. and Huang J. (2005) The research of the BMRM polyphase distribution winding. *Proceedings of the Eighth International Conference on Electrical Machines and Systems (ICEMS)*, 27-29 September, pp. 671-674.

Contact

Professor S.C. Wong
Institute of Transport Studies
c/o Department of Civil Engineering
The University of Hong Kong
Pokfulam Road, Hong Kong
Tel: (852) 2859-1964
Fax: (852) 2559-5337
E-mail: hhecwsc@hkucc.hku.hk
URL: <http://www.hku.hk/hkuits>