PROF. SZETO, WAI YUEN

PERSONAL DATA

Contact Information

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Web of Science: 52 Scopus: 54 Google Scholar: 65

Education

The Hong Kong University of Science and Technology

- Ph.D. (Civil Engineering), 2000–2003.
- Master of Philosophy (Civil Engineering), 1998–2000.
- Bachelor of Engineering (Civil and Structural Engineering), 1995–1998.

Professional Affiliations

A. Fellows

- The Hong Kong Society for Transportation Studies (FHKSTS), 2023-present.
- The Chartered Institute of Logistics and Transport (FCILT), 2023–present.

B. Chartered Member

• The Chartered Institute of Logistics and Transport (CMILT), 2006–present.

C. Members

- World Conference on Transport Research (WCTR) Society, 2016–present.
- The Hong Kong Institution of Highways and Transportation (MHKIHT), 2014– present.
- The Chartered Institution of Highways and Transportation (MCIHT), 2006– present.

- The Institute of Electrical and Electronics Engineers (MIEEE), 2006–present.
- The Hong Kong Society for Transportation Studies (MHKSTS), 2006–2023.
- The Institution of Engineers of Ireland (MIEI), 2006–2008.
- The Eastern Asia Society for Transportation Studies (EASTS), 2006–present.

Working Experience

A. The University of Hong Kong

- Associate Head (Teaching & Learning), Department of Civil Engineering, 1 Jul 2020–present.
- *Professor*, Department of Civil Engineering, 1 Sep 2019–present.
- *Director*, Institute of Transport Studies, 1 Jul 2023–present.
- *Deputy Director*, Institute of Transport Studies, 1 Jul 2014– 30 Jun 2023.
- Associate Professor, Department of Civil Engineering, 1 Jan 2016–31 Aug 2019.
- Assistant Professor, Department of Civil Engineering, 14 Dec 2009–31 Dec 2015.

B. Hefei University of Technology

• *Adjunct Professor*, School of Automotive and Transportation Engineering, 1 Feb 2019–31 Jan 2022.

C. National University of Singapore

• Assistant Professor, Department of Civil Engineering, 2 Jul 2007–12 Dec 2009.

D. Trinity College Dublin

• *Lecturer in Transportation Engineering*, Department of Civil, Structural, and Environmental Engineering, 16 Aug 2004–30 Jun 2007. (He became a permanent lecturer in Nov 2006.)

E. The Hong Kong University of Science and Technology

- *Visiting Scholar*, Department of Civil Engineering, 1 Aug 2005–15 Sep 2005.
- *Postdoctoral Fellow*, Department of Civil Engineering, 1 Sep 2003–14 Aug 2004.
- *Research Assistant*, Department of Civil Engineering, 1 Jun 1998–31 Aug 1998.

HONOR AND AWARDS

Honour

- Top 1 % Scholars 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 (Clarivate Analytics' Essential Science Indicators). <<u>http://hub.hku.hk/local/top1pc/top1pc.jsp</u>>
- World's Top 2% Scientists by Stanford University
- Biography has been listed in Who's Who in the World® 2015 (32nd Edition).
- Outstanding Alumni Award 2021, Department of Civil and Environmental Engineering, The Hong Kong University of Science and Technology.

Research Awards

- 1. The 1st Runner-up of the Chartered Institute of Logistics and Transport in Hong Kong (CILTHK) Student Day Project Competition (1999).
- 2. The World Conference on Transport Research (WCTR) Prize (2001).
 - The best paper "A Cell-based Dynamic Traffic Assignment Model", out of about 700 papers presented at (or 1100 abstracts submitted for) the 9th Triennial WCTR Conference in 2001.
- 3. Sir Edward Youde Memorial Fellowship (2001–2002).
 - Out of all the postgraduate students in Hong Kong in 2000.
- 4. The 2nd Runner-up of the Graduates & Students Division of the Institution of Civil Engineers, Hong Kong Association (G&S/ICE HKA) Paper Competition (2002).
- 5. Sir Edward Youde Memorial Fellowship Renewal (2002–2003).
 - Out of all the Sir Edward Youde Memorial Fellowship recipients in 2001.
- 6. The Hong Kong Society for Transportation Studies (HKSTS) Outstanding Student Paper Award (2003).
 - The best student paper "Network Improvement Strategies across Time", out of all the student papers submitted for the 8th Annual HKSTS Conference in 2003.
- 7. The Eastern Asia Society for Transportation Studies (EASTS) Outstanding Paper Award (2003).
 - The outstanding paper "Time-dependent Transport Network Design: A Study of Budget Sensitivity", out of about 460 papers presented at (or 800 abstracts submitted for) the 5th Biannual EASTS Conference in 2003.
- 8. The HKSTS Outstanding Dissertation Paper Award and Gordon Newell Memorial Prize (2005).
- 9. The Hong Kong Institution of Engineers (HKIE) Outstanding Paper Award for Young Engineers/Researchers (2008).
- 10. Honor of Individual Award of Shenzhen Virtual University Park for National Research Project, the Shenzhen Municipal Science and Technology Innovation Council (2012).
- 11. Honor of Individual Award of Shenzhen Virtual University Park for National Research Project, the Shenzhen Municipal Science and Technology Innovation Council (2013).
- 12. Best Paper Award, The 10th International Workshop on Computational Transportation Science (2018).

- 13. The Outstanding Paper Award of the 2018 China Urban Transportation Planning Annual Meeting (2018).
- 14. Best Paper Award, The 14th International Workshop on Computational Transportation Science (2023).

Service Awards

- 1. Certificate of Excellence in Reviewing, Transportation Research Part B, 2013.
- 2. Certificate of Excellence in Reviewing, Transportation Research Part C, 2013.
- 3. Certificate of Excellence in Reviewing, Transportation Research Part C, 2016.
- 4. Certificate of Outstanding Contribution in Reviewing, Transportation Research Part C, 2017.
- 5. Certificate of Outstanding Contribution in Reviewing, Transportation Research Part D, 2017.
- 6. Certificate of Outstanding Contribution in Reviewing, Transportation Research Part B, 2018.
- 7. Best Reviewer, The first International Conference on Frontiers of Control and Sensor Networks (CFCSN 2019), 2019.

RESEARCH AND SCHOLARSHIP

Editorship and Editorial Board Membership

A. Editor-in-Chief

1. Transportmetrica B: Transport Dynamics (split from Transpormetrica), Taylor & Francis, 2022–present.

B. Editors

- 1. Transportmetrica B: Transport Dynamics (split from Transpormetrica), Taylor & Francis, 2016–2021.
- 2. Open Engineering (formerly Central European Journal of Engineering), Springer, de Gruyter, 2011–present.
- 3. Proceedings of the 16th International Conference of Hong Kong Society for Transportation Studies, The Hong Kong Society for Transportation Studies, 2011.
- 4. Proceedings of the 7th International Symposium on Dynamic Traffic Assignment, 2018.
- 5. Proceedings of 2020 International Workshop on Transportation Engineering and Automotive Engineering, 2020.
- 6. Proceedings of The 25th International Conference of Hong Kong Society for Transportation Studies, The Hong Kong Society for Transportation Studies, 2021.
- 7. Abstract compendium of the 9th International Symposium on Transport Network Resilience, 2023.

B. Associate Editors

- 1. Transportation Research Part D, Elsevier, 2019-present.
- 2. Transportation Research Part E, Elsevier, 2020-present.
- 3. Transportmetrica A: Transport Science (formerly known as Transportmetrica), Taylor & Francis, 2012–present.
- 4. Transportmetrica B: Transport Dynamics (split from Transportmetrica), Taylor & Francis, 2013–2016.
- 5. Travel Behaviour and Society, Elsevier, 2013–present.
- 6. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, Taylor & Francis, 2014–present.
- 7. Asian Transport Studies, The Eastern Asia Society for Transportation Studies (EASTS), 2015–2019.
- 8. The International IEEE Annual Conference on Intelligent Transportation Systems series, IEEE Press, 2010–2011, 2013–2024.
- 9. The 2024 35th IEEE Intelligent Vehicles Symposium (IV) (IEEE IV 2024), IEEE Press, 2024.

C. Editor in Asian Region

1. International Journal of Transportation, Science & Engineering Research Support Society (former publisher), NADIA, 2012–present.

D. Area Editor (Sustainability)

1. Networks and Spatial Economics, Springer, 2015–present.

E. Guest Editors

- 1. Asian Geographer, Special Issue on Transport Geography in Asia, Taylor & Francis, 2012–2013.
- 2. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, Special Issue on Dynamic Modeling for Intelligent Transportation System Applications, Taylor & Francis, 2012–2014.
- 3. International Journal of Transportation, Special Issue on Recent Advances in Metaheuristics for Solving Transportation and Logistics Problems, Science & Engineering Research Support Society, 2012–2014.
- 4. Transportmetrica A, Special Issue on Quantitative Approaches to Resilience in Transportation Networks, Taylor & Francis, 2014–2015.
- 5. International Journal of Sustainable Transportation, Special Issue on Sustainability in Transportation Networks, Taylor & Francis, 2012–2015.
- 6. Networks and Spatial Economics, Special Issue on Quantitative Approaches to Environmental Sustainability in Transportation Networks, Springer, 2012–2016.
- 7. Transportmetrica B: Transport Dynamics, Special Issue on Smart Transportation and Analytics, Taylor & Francis, 2015–2018.

- 8. Transportation Research Part B: Methodological, Special Issue on Green Urban Transportation, Elsevier, 2016–2017.
- 9. Transportation Research Part B: Methodological, Special Issue on Innovative Shared Transportation, 2018–2020.
- 10. Transportation Research Part D: Transport and Environment, Special Issue on Environmental Implications of Emerging Transportation Technologies, Elsevier, 2021–2023.

F. Editorial Board Members

- 1. Asian Transport Studies, EASTS, 2010–2014.
- 2. International Journal of Sustainable Transportation, Taylor & Francis, 2012present.
- 3. International Journal of Transportation Science and Technology, Multi-Science Publishing (2013–2015), Elsevier (2016–2018), 2013–2018.
- 4. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, Taylor & Francis, 2013–2014.
- 5. Transportation Research Part B: Methodological, Elsevier, 2014–2018.
- 6. Transportation Research Part C: Emerging Technologies, Elsevier, 2014–present.
- 7. Transportation Research Part D: Transport and Environment, Elsevier, 2017–2019.
- 8. Transportation Research Part E: Logistics and Transportation Review, Elsevier, 2017–2020.

Research Interest

Sustainable and smart transportation, which involves developing novel theories, modeling frameworks, and solution methods for practical transportation network or intelligent transportation system applications

- Dynamic traffic assignment
- Environmentally sustainable transport network design
- Public transit, taxis, and bicycles
- Shared mobility
- Transport logistics
- Transport network reliability and resilience
- Transport network pricing and optimization

Invited Lectures and Presentations

A. Invited Keynote Presentations

- 1. "A hybrid artificial bee colony algorithm for bilevel transit network design", The 2nd International Conference on Software, Multimedia and Communication Engineering (SMCE2017), Shanghai, China, Apr 23–24, 2017.
- 2. "A dynamic traffic assignment problem with taxis and private cars: A two-level continuum transportation system modeling approach", International Workshop on

Multimodal Transportation Network Analysis, Dalian, China, Jul 4, 2017.

- 3. "Excessive noise paradox in urban transportation networks", 2017 International Conference on Geomatics and Civil Engineering (GCE2017), Shanghai, China, Sep 8–10, 2017.
- 4. "Exact loading and unloading strategies for the static multi-vehicle bike repositioning problem", The Fifth Symposium on Transportation Science and Computation (TSC-V), Guiyang, China, May 25–28, 2018.
- 5. "Bike-sharing: Development, challenges, and research opportunities", Centennial Conference of University of Seoul, Seoul, South Korea, Jun 14–15, 2018.
- 6. "Exact loading and unloading strategies for the static multi-vehicle bike repositioning problem", The 2nd International Workshop on Multimodal Transportation, Nanjing, China, Jun 23–24, 2018.
- 7. "Exact loading and unloading strategies for the static multi-vehicle bike repositioning problem", The 10th International Workshop on Computational Transportation Science (CTS 2018), Beijing, China, Jul 10–11, 2018.
- 8. "Excessive noise paradox in urban transportation networks", International Workshop on Transport Modelling, Auckland, New Zealand, Jan 7–9, 2019.
- 9. "An enhanced artificial bee colony algorithm for the static public bike repositioning problem", International Conference on Robotics Systems and Vehicle Technology, Wuhan, China, Oct 18–20, 2019.
- 10. "Taxi service area design: Formulation and analysis", 2020 2nd International Conference on Civil, Architecture and Urban Engineering (ICCAUE 2020), Xi'an, China, Aug 14–16, 2020.
- 11. "Optimal sectional fare and frequency settings for transit networks with elastic demand ", The 12th International Workshop on Computational Transportation Science (CTS 2021), Harbin, China, Jul 28–29, 2021.
- 12. "Modeling and analyzing a taxi market with a monopsony taxi owner and multiple rentee-drivers" The 4th International Symposium on Multimodal Transportation (ISMT), Nanjing, China, Dec 4–5, 2021.
- 13. The 26th Euro Working Group on Transportation (EWGT), Lund, Sweden, Sep 4–6, 2024.

B. Invited Lectures

- "Hazardous material transport", The GCOE, Kyoto University (KU) Centre for Maritime Studies (CMS), NUS, Workshop on Human Security Engineering for Asian Megacities, Kyoto University, Kyoto, Japan, Sep 7–9, 2009.
- 2. "Transit network design: An optimization approach", 2016 Shandong University International Summer School on Urban Transport Management, Shandong University, Qingdao, China, Aug 3, 2016.
- 3. "Transit network design: An optimization approach", 2017 Shandong University International Summer School on Urban Transport Management, Shandong University, Qingdao, China, Aug 6, 2017.
- 4. "Junction and pedestrian crossing design", Development Programme, Transport Department, Hong Kong, 25 Jan 2018.
- 5. "Bike-sharing: Development, Challenges, and Research Opportunities", 2018 Shandong University International Summer School on Urban Transport

Management, Shandong University, Qingdao, China, Aug 2, 2018.

6. "Bike-sharing: Development, Challenges, and Research Opportunities", 2019 Shandong University International Summer School on Urban Transport Management, Shandong University, Qingdao, China, Aug 1, 2019.

C. Invited/Opening Speeches

- 1. Opening Speech—Behavior in Networks Workshop, The University of Hong Kong, Hong Kong, Dec 16, 2011.
- 2. "DTA2018 in Hong Kong", The 6th International Symposium on Dynamic Traffic Assignment, Sydney, Australia, Jun 28–30, 2016.
- 3. "INSTR2022", The 7th International Symposium on Transport Network Reliability, Sydney, Jan 17–19, 2018.
- 4. Opening Speech—The 7th International Symposium on Dynamic Traffic Assignment, The University of Hong Kong, Hong Kong, Jun 6–8, 2018.
- 5. "The multi-vehicle bike repositioning problem", Infrastructure and Civil Engineering World Forum, Online, Mar 21–22, 2022.
- 6. "Modeling and analyzing a taxi market with a monopsony taxi owner and multiple rentee drivers", The 10th International Conference on Traffic and Logistic Engineering (ICTLE 2022), Macau, China, Aug 12–14, 2022.

D. Invited Plenary Presentations

- 1. "On the solution existence of dynamic traffic assignment with physical queues", Workshop on Dynamic Traffic Assignment, Queen's University, Belfast, UK, Sep 15–16, 2004.
- 2. "Dynamic traffic assignment: Properties and extensions", The 10th Conference of Hong Kong Society for Transportation Studies, Hong Kong, Dec 10, 2005.
- 3. "Properties and extensions of dynamic traffic assignment", The UK Dynamic Traffic Assignment Workshop, University College London, UK, Mar 28, 2006.
- 4. "Bus network design: A comparison between genetic algorithm and artificial bee colony algorithm approaches", MMM-XIII, Shanghai University, China, Oct 7, 2012.
- 5. "Transit route and frequency design: Bi-level modeling and hybrid artificial bee colony algorithm approach", The 6th International Workshop on Computational Transportation Science, Hefei University of Technology (HFUT), Hefei, China, Jun 8, 2014.
- 6. "The environmental sustainable network design problem", Workshop on Port, Shipping, and Transportation Studies, Shanghai Maritime University, Shanghai, China, Jun 11–12, 2014.
- 7. "Transit route and frequency design: Bi-level modeling and hybrid artificial bee colony algorithm approach", Workshop on Advanced Models for Public Transport Systems, The Hong Kong Polytechnic University, Hong Kong, Oct 4, 2014.
- "Reliability-based stochastic transit network design: Formulation and paradox", International Symposium on the Behavior of Travelers in Big Transport Networks 2015, Beijing University of Aeronautics and Astronautics, Beijing, China, Jan 25, 2015.

- 9. "Exact loading and unloading strategies for the static multi-vehicle bike repositioning problem", PTV Workshop, The Hong Kong University of Science and Technology, Hong Kong, Dec 7, 2018.
- 10. "An artificial bee colony algorithm for the taxi sharing problem", HKUST Smart Mobility Workshop, HKUST-DIDI Joint Research Laboratory, GREAT Smart Cities Center, The Hong Kong University of Science and Technology, Hong Kong, May 16, 2019.
- 11. "Modeling and Analyzing a Taxi Market with a Monopsony Taxi Owner and Multiple Rentee-Drivers", International Conference on Civil, Structural and Environmental Engineering (CIVILMEET2022), Munich, Germany, May 23-25, 2022.

E. Invited Seminar Presentations

- 1. "Dynamic traffic assignment: Properties and extensions", The Hong Kong University of Science and Technology, Hong Kong, Apr 18, 2005.
- 2. "Time-dependent transport network design", National University of Singapore, Singapore, Dec 18, 2006.
- 3. "Paradoxes in transportation networks", Beijing Jiaotong University, Oct 27, 2008.
- 4. "Modeling routing and scheduling hazardous materials in general road networks: Game theory approach", Beijing Jiaotong University, Beijing, China, Oct 27, 2008.
- 5. "Modeling and solving the game theoretical formulation for the routing and scheduling hazardous material problem", Beijing University of Aeronautics and Astronautics, Beijing, China, Oct 28, 2008.
- 6. "Analysis of paradoxical phenomena in transportation networks", Beijing University of Aeronautics and Astronautics, Beijing, China, Oct 28, 2008.
- 7. "Reliability-based stochastic transit assignment with capacity constraints", Purdue University, USA, Jul 7, 2010.
- 8. "Designing bus routes and frequencies for Tin Shui Wai, Hong Kong", Sun Yat Shan University, Guangzhou, China, Jul 22, 2011.
- 9. "A hybrid artificial bee colony algorithm for transit network design", South China University of Technology, Guangzhou, China, May 23, 2012.
- "An intersection-movement-based stochastic dynamic user optimal route choice model for assessing network performance", Rensselaer Polytechnic Institute, Troy, USA, Jun 8, 2012.
- 11. "An intersection-movement-based dynamic traffic assignment problem", EPFL, Switzerland, Jul 15, 2013.
- 12. "An intersection-movement-based approach to modeling and solving dynamic traffic assignment problems with physical queues", Beijing Jiaotong University, Beijing, China, May 8, 2014.
- 13. "Bilevel transit network design with transfer penalty", VU University Amsterdam, Holland, Jul 24, 2015.
- 14. "Reliability-based stochastic transit assignment", Shanghai Maritime University, Shanghai, China, Nov 6, 2015.

- 15. "Reliability-based stochastic transit assignment with capacity constraints: Formulation and solution method", New York University, New York, USA, Jun 22, 2016.
- 16. "An enhanced artificial bee colony algorithm: An application to the multiplevehicle static public bike repositioning problem", Tongji University, Shanghai, China, Apr 25, 2017.
- 17. "Excessive noise paradox in urban transportation networks", Shanghai Jiaotong University, Shanghai, China, Sep 7, 2017.
- 18. "Excessive noise paradoxes in urban transportation networks", National Chiao Tung University, Taiwan, Dec 24, 2018.
- 19. "Optimal sectional fare and frequency settings for transit networks with elastic demand", Hefei University of Technology, Hefei, China, Aug 26, 2019.
- 20. "Taxi service area design: Formulation and analysis", Hefei University of Technology, Hefei, China, Aug 27, 2019.
- 21. "The static multi-vehicle bike repositioning problem", The Chinese University of Hong Kong, Hong Kong, China, Jan 21, 2021.

F. Invited Special Session Presentations

- 1. "Reliability-based stochastic transit assignment: Formulations and capacity paradox", Network Modeling Session, The 17th COTA International Conference of Transportation Professionals, Shanghai, China, Jul 7–9, 2017.
- "Exact loading and unloading strategies for the static multi-vehicle bike repositioning problem", Workshop on Smart Urban Transportation, The RISUD Annual International Symposium 2018 (RAIS 2018), Research Institute for Sustainable Urban Development, The Hong Kong Polytechnic University, Hong Kong, Jun 29–30, 2018.

External Grants (PI)

- 1. Columbarium development: Public transport policy implications, Public Policy Research, Research Grants Council (RGC), project code: HKU7026-PPR-12, HK\$467,740, Oct 2012–Sep 2015.
- 2. A distribution-free approach for reliable transport network design, National Science Foundation of China (NSFC), project code: 71271183, HK\$653,120 (¥520,000), Jan 2013–Dec 2016.
- 3. Development of an intersection movement-based modeling approach for the multiclass dynamic traffic assignment problem with queue spillback, General Research Fund, RGC, project code: HKU 716312E, HK\$644,880, Jan 2013–Dec 2015.
- 4. A software tool with a strategic approach for identifying critical transport infrastructures and building resilience of urban transport systems, Innovation and Technology Fund, Matching Grant for Joint Research, project code: UIM/239, HK\$560,319 (including the matching fund from Ove Arup), Apr 2013–Sep 2015.
- 5. A software tool with a strategic approach for identifying critical transport infrastructures and building resilience of urban transport systems, Innovation and Technology Fund, Internship Programme, project code: InP/081/13, HK\$230,790, Jun 2013–Sep 2014.

- 6. A software tool with a strategic approach for identifying critical transport infrastructures and building resilience of urban transport systems, Innovation and Technology Fund, Internship Programme, project code: InP/137/13, HK\$176,400, Sep 2013–Aug 2014.
- 7. A cell-based multi-class dynamic traffic assignment model which considers taxi cruising, General Research Fund, RGC, project code: HKU 716913E, HK\$500,000, Jan 2014–Dec 2016.
- 8. A software tool with a strategic approach for identifying critical transport infrastructures and building resilience of urban transport systems, Innovation and Technology Fund, Internship Programme, project code: InP/209/14, HK\$101,920, Sep 2014–Mar 2015.
- 9. A simultaneous route and departure time choice problem formulation that encapsulates a probabilistic cell transmission model (PCTM), General Research Fund, RGC, project code: HKU 17207214E, HK\$875,000, Dec 2014–Nov 2017.
- 10. A software tool with a strategic approach for identifying critical transport infrastructures and building resilience of urban transport systems, Innovation and Technology Fund, Internship Programme, project code: InP/034/15, HK\$ 101,951.61, Mar 2015–Sep 2015.
- 11. Public transport policy measures to improve the mobility of the elderly in Hong Kong, Public Policy Research Funding Scheme, Central Policy Unit, project code: 2014.A8.025.15B, HK\$ 526,700, Sep 2015–Mar 2017.
- 12. A methodology to determine the dynamic system optimum and sustainable congestion and emission tolls based on a generalized multiclass link transmission model, General Research Fund, RGC, project code: HKU 17201915, HK\$ 695,788, Dec 2015–Nov 2018.
- 13. Development of a doubly dynamic traffic assignment model to determine road tolls, public-transit frequency, and fares, General Research Fund, RGC, project code: HKU 17218916, HK\$ 482,605, Jan 2017–Dec 2019.
- 14. A dynamic traffic equilibrium model for a network with ridesharing and autonomous taxis, General Research Fund, RGC, project code: HKU 17201217, HK\$ 569,500, Dec 2017–Nov 2020.
- Dynamic bi-level public bike network design with uncertainties, National Science Foundation of China (NSFC), project code: 71771194, HK\$ 602,880 (¥490,000), Jan 2018–Dec 2021.
- 16. The 7th International Symposium on Dynamic Traffic Assignment (DTA): Smart Transportation, Croucher Foundation: Sponsorship of Conferences 2017–2018, HK\$100,000, Jun 6–8, 2018.
- 17. Dynamic modeling and management of taxi markets with multiple e-hailing services and taxi classes, General Research Fund, RGC, project code: 17200618, HK\$ 632,421, Jan 2019–Dec 2021.
- Development of dynamic equilibrium models for managing multimodal transportation systems with bike-and-ride, General Research Fund, RGC, project code: 17200119, HK\$ 748,300, Jan 2020–Dec 2022.
- 19. Dynamic taxi market management problems related to rentee-drivers and ridesourcing platforms, General Research Fund, RGC, project code: 17204521, HK\$ 911,317, Jan 2022–Dec 2024.

- 20. Strategic planning and management of a competitive bike-sharing system with regular and electric bikes, General Research Fund, RGC, project code: 17206322, HK\$ 884,500, Jan 2023–Dec 2025.
- 21. Bilevel modeling and strategic management of conventional and autonomous bus services in a profit-maximizing market over time, General Research Fund, RGC, project code: 17203223, HK\$ 858,342, Jan 2024–Dec 2026.

Publications

- In the publication list, the author with
 - the underlined name is me.
 - the italicized name is/was my research student, undergraduate student, research assistant, or postdoctoral fellow in the current or previous working universities.
 - the bolded and underlined name is me as the corresponding author.

A. Refereed Journal Papers

- 1. Lo, H.K. and <u>Szeto, W.Y.</u>, 2001. Advanced transportation information systems: A cost-effective alternative for network capacity expansion? *ITS Journal*, 6(4), 375–395.
- 2. Lo, H.K. and <u>Szeto, W.Y.</u>, 2002. A methodology for sustainable traveler information services. *Transportation Research Part B*, 36(2), 113–130.
- 3. Lo, H.K. and <u>Szeto, W.Y.</u>, 2002. A cell-based variational inequality formulation of the dynamic user optimal assignment problem. *Transportation Research Part B*, 36(5), 421–443.
- 4. Lo, H.K. and <u>Szeto, W.Y.</u>, 2002. A cell-based dynamic traffic assignment model: Formulation and properties. *Mathematical and Computer Modelling*, 35(7–8), 849–865.
- 5. Lo, H.K. and <u>Szeto, W.Y.</u>, 2003. Time-dependent transport network design: A study of budget sensitivity. *Journal of the Eastern Asia Society for Transportation Studies*, 5, 1124–1139. (This paper won the 2003 EASTS Outstanding Paper Award.)
- 6. Lo, H.K. and <u>Szeto, W.Y.</u>, 2004. Modeling advanced traveler information services: Static versus dynamic paradigms. *Transportation Research Part B*, 38(6), 495–515.
- 7. <u>Szeto, W.Y.</u> and Lo, H.K., 2004. A cell-based simultaneous route and departure time choice model with elastic demand. *Transportation Research Part B*, 38(7), 593–612.
- 8. Lo, H.K. and <u>Szeto, W.Y.</u>, 2005. Road pricing modeling for hyper-congestion. *Transportation Research Part A*, 39(7–9), 705–722.
- 9. <u>Szeto, W.Y.</u> and Lo, H.K., 2005. Strategies for road network design over time: Robustness under uncertainty. *Transportmetrica*, 1(1), 47–63.
- 10. <u>Szeto, W.Y.</u> and Lo, H.K., 2005. The impact of advanced traveler information services on travel time and schedule delay costs. *Journal of Intelligent Transportation Systems*, 9(1), 47–55.
- 11. Szeto, W.Y. and Lo, H.K., 2005. Properties of dynamic traffic assignment with

physical queues. *Journal of the Eastern Asia Society for Transportation Studies*, 6, 2108–2123.

- 12. <u>Szeto, W.Y.</u> and Lo, H.K., 2005. Dynamic traffic assignment: Review and future research directions. *Journal of Transportation Systems Engineering and Information Technology*, 5(5), 85–100.
- 13. <u>Szeto, W.Y.</u> and Lo, H.K., 2006. Transportation network improvement and tolling strategies: The issue of intergeneration equity. *Transportation Research Part A*, 40(3), 227–243.
- Szeto, W.Y. and Lo, H.K., 2006. Dynamic traffic assignment: Properties and extensions. *Transportmetrica*, 2(1), 31–52. (This paper won the HKSTS Outstanding Dissertation Paper Award and Gordon Newell Memorial Prize 2005.)
- 15. <u>Szeto, W.Y.</u>, *O'Brien, L.*, and O'Mahony, M., 2006. Risk-averse traffic assignment with elastic demands: NCP formulation and solution method for assessing performance reliability. *Networks and Spatial Economics*, 6(3–4), 313–332.
- 16. <u>Szeto, W.Y.</u>, 2007. Competition between information service providers and toll road operators: Modeling frameworks. *Journal of Intelligent Transportation Systems*, 11(1), 41–56.
- 17. Li, X.Q., <u>Szeto, W.Y.</u>, and O'Mahony, M., 2007. Incorporating land use, transport and environmental considerations into time-dependent tolling strategies. Journal of the Eastern Asia Society for Transportation Studies, 7, 360–375.
- O'Brien, L. and <u>Szeto, W.Y.</u>, 2007. The discrete network design problem over time. *HKIE Transactions*, 14(4), 47–55. (This is a shortlisted paper for the HKIE Outstanding Paper Award for Young Engineers/Researchers 2007.)
- 19. *O'Brien, L.,* <u>Szeto, W.Y.</u>, and O'Mahony, M., 2007. Time-dependent discrete network design problem. *Journal of the Eastern Asia Society for Transportation Studies*, 67, 2230–2245.
- 20. O'Brien, L. and Szeto, W.Y., 2008. Designing reliable transport networks: The multiple network spoiler approach. *HKIE Transactions*, 15(4), 1–9. (This is an awarded paper for the HKIE Outstanding Paper Award for Young Engineers/Researchers 2008.)
- 21. <u>Szeto, W.Y.</u>, 2008. Enhanced lagged cell-transmission model for dynamic traffic assignment. *Transportation Research Record*, 2085, 76–85.
- 22. <u>Szeto, W.Y.</u> and Lo, H.K., 2008. Time-dependent transport network improvement and tolling strategies. *Transportation Research Part A*, 42(2), 376–391.
- 23. Lo, H.K. and <u>Szeto, W.Y.</u>, 2009. Time-dependent transport network design under cost-recovery. *Transportation Research Part B*, 142–158.
- 24. <u>Szeto, W.Y.</u>, Ghosh, B., Basu, B., and O'Mahony, M., 2009. Multivariate traffic forecasting technique using cell transmission model and SARIMA model. *Journal of Transportation Engineering*, 135(9), 658–667.
- 25. <u>Szeto, W.Y.</u>, *O'Brien, L.*, and O'Mahony, M., 2009. Measuring network reliability by considering paradoxes: Multiple network demon approach. *Transportation Research Record*, 2090, 42–50.
- 26. Szeto, W.Y. and Solayappan, M., 2009. A novel doubly stochastic transit

assignment formulation: An application to Singapore bus network. *HKIE Transactions*, 16(4), 63–71. (This is a shortlisted paper for the HKIE Outstanding Paper Award for Young Engineers/Researchers 2009.)

- 27. Long, J.C., Gao, Z.Y., Zhang, H.Z., and <u>Szeto, W.Y.</u>, 2010. A turning restriction design problem in urban road networks. *European Journal of Operational Research*, 206(3), 569–578.
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B. Books

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C. Book Chapters/ISTTT Papers

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D. Refereed Conference Papers

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- 49. Lei, Z.Q., Leung, F.H., Hau, C.H., Lui, K.S., <u>Szeto, W.Y.</u>, and Pong, P.W.T., 2013. Green transport system: A technology demonstration of adaptive road lighting with giant magnetoresistive sensor network for energy efficiency and reducing light pollution. *Applied Mechanics and Materials: Papers selected from the Second International Conference on Engineering and Technology Innovation 2012*, Vols. 284–287, 2385–2390.
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E. Magazine Articles

- 1. <u>Szeto, W.Y.</u>, 2006. Centre for Transportation Research and Innovation for People, Irish Scientist, Pg. 82.
- 2. <u>Szeto, W.Y.</u>, 2010. Improving bus services for Tin Shui Wai, Brochure, Department of Civil Engineering, The University of Hong Kong.
- 3. <u>Szeto, W.Y.</u>, 2011. The 16th International Conference of Hong Kong Society for Transportation Studies, Newsletter, Chartered Institute of Logistic and Transport in Hong Kong, 10/2011–12/2011.
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F. Theses

- 1. <u>Szeto, W.Y.</u>, 2000. Cell-based dynamic traffic assignment models: Formulations and properties, M.Phil. Thesis, The Hong Kong University of Science and Technology, H.K.
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G. Selected Peer-Reviewed Paper Presentations

- 1. <u>Szeto, W.Y.</u>, 2010. Road pricing strategies to resolve both emission and Braess' paradoxes. Paper presented at *Innovations in Pricing of Transportation Systems Conference & Workshop*, May 13–14, 2010, Florida, USA.
- 2. <u>Szeto, W.Y.</u>, 2010. Time-dependent tolling strategies. Paper presented at *Innovations in Pricing of Transportation Systems Conference & Workshop*, May 13–14, 2010, Florida, USA.
- 3. <u>Szeto, W.Y.</u>, *Wu*, *Y.Z.*, and Ho, S.C., 2010. An artificial bee colony algorithm for the capacitated vehicle routing problem. Paper presented at *The EURO XXIV Conference*, July 11–14, 2010, Lisbon, Portugal.
- 4. <u>Szeto, W.Y.</u>, *Wu*, *Y.Z.*, and Wong, S.C., 2010. Solving the bus network design problem for the suburban area in Hong Kong by a hybrid genetic algorithm. Paper presented at *The EURO XXIV Conference*, July 11–14, 2010, Lisbon, Portugal.
- 5. Moghaddasi, H., *Farahani*, *R.Z.*, and <u>Szeto, W.Y.</u>, 2009. Reliable supply chain network design under disruptions. Paper presented at *The International Symposium* on Maritime Logistics and Supply Chain Systems 2009, April 23–24, 2009, Singapore.
- 6. Parvaresh, F., *Farahani*, *R.Z.*, and <u>Szeto, W.Y.</u>, 2009. An efficient branch-andbound method for finding flow-paths in conventional AGVS. Paper presented at *The International Symposium on Maritime Logistics and Supply Chain Systems 2009*, April 23–24, 2009, Singapore.
- 7. Hosseini, S., *Farahani*, R.Z., and <u>Szeto, W.Y.</u>, 2009. A robust optimization model for designing a distribution network in an uncertain supply chain. *Paper presented at The International Symposium on Maritime Logistics and Supply Chain Systems* 2009, April 23–24, 2009, Singapore.
- 8. <u>Szeto, W.Y.</u> and *Jiang*, *Y.*, 2011. A simultaneous bus route design and frequency setting problem: A hybrid artificial bee colony algorithm approach. Paper presented at *The 16th International Conference of Hong Kong Society for Transportation Studies*, December 17–20, 2011, Hong Kong.
- 9. <u>Szeto, W.Y.</u>, *Jiang*, *Y.*, and Wong, S.C., 2012. Bilevel transit network design problem: Artificial bee colony approach. Paper presented at *The INFORMS International Conference*, June 24–27, 2012, Beijing, China.
- 10. Wong, R.C.P., <u>Szeto, W.Y.</u>, and Wong, S.C., 2012. Heterogeneous responses of vacant taxi drivers to uncertainties in customer-searching. Paper presented at *The 5th International Symposium on Transportation Network Reliability*, December 18–19, 2012, Hong Kong.

- 11. <u>Szeto, W.Y.</u>, *Jiang*, Y., Wong, S.C., and Wang, D.Z.W., 2012. Risk-averse stochastic user equilibrium transit assignment with elastic demand. Paper presented at *The 5th International Symposium on Transportation Network Reliability*, December 18–19, 2012, Hong Kong.
- 12. *Wang*, *Y*., <u>Szeto</u>, <u>W.Y.</u>, and Wong, S.C., 2012. The environmental sustainable network design problem under uncertainty solved by chemical reaction optimization. Paper presented at *The 5th International Symposium on Transportation Network Reliability*, December 18–19, 2012, Hong Kong.
- 13. <u>Szeto, W.Y.</u>, *Wang, A.B.*, and Wong, S.C., 2012. Price of anarchy for reliabilitybased traffic assignment and network design. Paper presented at *The 5th International Symposium on Transportation Network Reliability*, December 18–19, 2012, Hong Kong.
- 14. Sun, S.J., <u>Szeto, W.Y.</u>, and Wong, S.C., 2012. Optimal frequency, route, and fare structures for transit networks with elastic demand. Paper presented at *The 17th International Conference of Hong Kong Society for Transportation Studies*, December 15–17, 2012, Hong Kong.
- 15. Wong, R.C.P., <u>Szeto, W.Y.</u>, and Wong, S.C., 2012. Preferences of vacant taxi drivers towards taxi stands in customer search. Paper presented at *The 17th International Conference of Hong Kong Society for Transportation Studies*, December 15–17, 2012, Hong Kong.
- 16. *Shui*, C.S., <u>Szeto, W.Y.</u>, Wong, S.C., and Wang, D.Z.W., 2012. Bicycle network design using genetic algorithm. Paper presented at *The 17th International Conference of Hong Kong Society for Transportation Studies*, December 15–17, 2012, Hong Kong.
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- 18. Wang, A.B., <u>Szeto, W.Y.</u>, and Wong, S.C., 2012. First-best marginal cost toll for reliability-based traffic assignments. Paper presented at *The 17th International Conference of Hong Kong Society for Transportation Studies*, December 15–17, 2012, Hong Kong.
- 19. <u>Szeto, W.Y.</u>, *Wang*, *Y.*, and Wong, S.C., 2012. The chemical reaction optimization approach to solving the environmentally sustainable network design problem. Paper presented at *The 17th International Conference of Hong Kong Society for Transportation Studies*, December 15–17, 2012, Hong Kong.
- 20. <u>Szeto, W.Y.</u>, *Wang, A.B.*, and Wong, S.C., 2013. Price of anarchy for reliabilitybased traffic assignment and network design. Paper presented at *The Transportation Research Board 92nd Annual Meeting*, January 13–17, 2013, Washington, D.C., USA.
- 21. <u>Szeto, W.Y.</u>, *Jaber, X.Q.*, and O'Mahony, M., 2013. On the existence of the simultaneous occurrence of Braess and emission paradoxes. Paper presented at *The Transportation Research Board 92nd Annual Meeting*, January 13–17, 2013, Washington, D.C., USA.
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- 135. <u>Szeto, W.Y.</u> and *Gong, J.*, 2021. A multi-period asymmetric transit frequency design considering demand variations. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 136. Zhan, X., Szeto, W.Y., and Chen, X., 2021. The dynamic ride-hailing sharing problem with multiple vehicle types and user classes. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 137. *Hu, J.* and <u>Szeto, W.Y.</u>, 2021. Optimal bus service design with limited-stop services and in-vehicle congestion. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 138. Chen, M. and Szeto, W.Y., 2021. A static green bike repositioning problem with heavy and light bike carriers. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 139. Hu, R. and Szeto, W.Y., 2021. Dynamic bike-sharing system rebalancing using MOEA/D algorithm based on station priority. Paper presented at *The 25th* International Conference of Hong Kong Society for Transportation Studies, December 9–10, 2021, Hong Kong.

- 140. Wong, R.C.P., Yang, L., Szeto, W.Y., Li, Y.C., Wong, S.C., 2021. Introducing accessible taxi service and taxi fare subsidy scheme for the elderly. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 141. *Mak, P.L.* and <u>Szeto, W.Y.</u>, 2021. A multi-vehicle e-bike repositioning problem with charging stations. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 142. <u>Szeto, W.Y.</u> and *Song, C.*, 2021. A static inventory rebalancing problem considering user incentives and inequity. Paper presented at *The 25th International Conference of Hong Kong Society for Transportation Studies*, December 9–10, 2021, Hong Kong.
- 143. Long, J., Huang, Z., Szeto, W.Y. and Liu, H., 2021. Modeling and managing the morning commute problem with park-and-ride-sharing. *The 20th & 21st Joint COTA International Conference of Transportation Professionals*, December 17–20, 2021, Xi'an, China.
- 144. *Wang, A.B., Jiang, Y.*, Ning, P. and <u>Szeto, W.Y.</u>, 2022. Mining frequent sequences in automatic vehicle identification data: a data mining approach to identify critical paths. The 22nd COTA International Conference of Transportation Professionals (CICTP2022), July 8–11, 2022, Changsha, China.
- 145. *Wang, Yue* and <u>Szeto, W.Y.</u>, 2022. The dynamic bike repositioning problem with battery electric vehicles and multiple charging technologies. *The 22nd COTA International Conference of Transportation Professionals (CICTP2022)*, July 8–11, 2022, Changsha, China.
- 146. Wong, R.C.P., Ke, Jintao, Szeto, W.Y. and Mak, P.L., 2022. Public acceptance of car-pooling and taxi ride-sharing in Hong Kong. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 147. *Hu, M.* and <u>Szeto, W.Y.</u>, 2022. Cooperative design of feeder bus and shared bike systems. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 148. Gong, J. and <u>Szeto, W.Y.</u>, 2022. The multi-period asymmetric transit frequency design problem. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 149. Chen, M. and Szeto, W.Y., 2022. A loading and unloading strategy for a bike sharing system with e-bikes and normal bikes. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 150. <u>Szeto, W.Y.</u> and *Hu, J.*, 2022. A new strategy for the real-time limited-stop bus service design problem. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 151. *Hu*, *R*. and <u>Szeto, W.Y.</u>, 2022. Bike-sharing system repositioning with broken bikes: combining vehicle-based collection and labor-based on-site repair. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.
- 152. Song, J. and Szeto, W.Y., 2022. A mixed bicycle sharing station location design problem considering conventional shared bike and shared e-bike. Paper presented at *The 26th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2022, Hong Kong.

- 153. Guo, J., *Long, J.*, <u>Szeto, W.Y.</u>, Tan, W., and Jian, S., 2023. A one-way carsharing system with ridsharing options. Paper presented at *The 14th International Workshop* on *Computational Transportation Science*, August 11–13, 2023, Shanghai, China.
- 154. *Cui, J.* and <u>Szeto, W.Y.</u>, 2023. The static multi-vehicle repositioning problem with electric bikes. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 155. *Hu, R.* and <u>Szeto, W.Y.</u>, 2023. Repositioning in bike sharing systems with broken bikes considering on-site repairs using a hybrid genetic search algorithm. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 156. Song, J., Szeto, W.Y., Li, B., and Zhan, X., 2023. A station location design problem in a bike-sharing system with both conventional and electric shared bikes considering bike users' roaming delay costs. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 157. *He, Q.* and <u>Szeto, W.Y.</u>, 2023. A modified genetic algorithm for solving the bus route design, express bus service design and frequency setting problem. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 158. Chen, M. and Szeto, W.Y., 2023. An alternative loading strategy for a bike repositioning problem with e-bikes and conventional bikes. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 159. *Hu*, *M*. and <u>Szeto, W.Y.</u>, 2023. Integrated design of urban rail transit fed by feeder bus and shared bike. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 160. Gong, J. and <u>Szeto, W.Y.</u>, 2023. A multi-period asymmetric transit frequency design. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.
- 161. Wong, R.C.P., Ali, Nazam, and Szeto, W.Y., 2023. Public acceptance of circular and point-to-point urban ferry services in Hong Kong. Paper presented at *The 27th International Conference of Hong Kong Society for Transportation Studies*, December 11–12, 2023, Hong Kong.

Supervision and Achievements at HKU

A. Graduated RPGs (Ph.D.)

- 1. Jiang, Yu (Graduated in 2014)
 - He won the first runner-up of the HKSTS Outstanding Student Paper Award (2013).
 - He was an Assistant Professor at the Technical University of Denmark from 2017 to 2021.
 - He has been promoted to an Associate Professor at the Technical University of Denmark since 2021.
- 2. Wong, Cheuk Pong, Ryan (Graduated in 2014)

- He received the Outstanding Teaching Assistant (TA) Award from 2011 to 2013 (i.e., 2 consecutive years).
- He was awarded the Sir Edward Youde Memorial Fellowship (2013).
- He won the first runner-up of the HKSTS Outstanding Student Paper Award (2014).
- He won The HKSTS Outstanding Dissertation Paper Award and Gordon Newell Memorial Prize (2015).
- He has been employed as a Lecturer at HKU since 2015.
- 3. Wang, Bei (Graduated in 2015)
 - Her paper entitled "*Reliable transport network design*" won the Chartered Institution of Highways and Transportation (CIHT) Best Student Paper Award, 2011.
 - She got the Champion of the Institution of Civil Engineers (ICE) Best Student Paper Award (Highways, Railways, and Transportation discipline) in 2011.
 - She received the Outstanding TA Award from 2013 to 2014.
- 4. Wang, Yi (Graduated in 2015)
 - She got the Champion of the HKSTS Outstanding Student Paper Award (2014).
 - She has just received an offer of Lecturer from the University of Canterbury.
- 5. Sun, Sujun (Graduated in 2016)
 - She won the CIHT Best Student Paper Award in 2012.
 - She got the Champion of the HKSTS Outstanding Student Paper Award (2016).
 - She has been an Assistant Professor of Jinan University since Dec 2020.
- 6. Shui, Chin Sum (Graduated in 2016)
 - He has been employed as an Assistant Professor at National Chiao Tung University, Taiwan since Aug 2019.
 - He received the Outstanding TA Award from 2013 to 2015 (i.e., 2 consecutive years).
 - He got the Champion of the HKSTS Outstanding Student Paper Award (2015).
- 7. Liu, Ying (Graduated in 2017)
- 8. Yang, Wenhan (Graduated in 2018)
 - He won the Champion of the HKSTS Outstanding Student Paper Award (2017).
- 9. Cheng, Yiran (Graduated in 2019)
- 10. Wang, Yue (Graduated in 2020)
 - She received the Hong Kong PhD Fellowship (HKPF) from 2016–2019.
 - She won the Champion of the HKSTS Outstanding Student Paper Award (2019).
 - She has been an Assistant Professor at Huazhong University of Science and Technology since May 2021.
- 11. Li, Baicheng (Graduated in 2020)
 - He has been employed as an Assistant Professor at Shenzhen Technology University since Sep 2020.

- He received The Best Student Paper Award from the 3rd International Symposium on Multimodal Transportation (ISMT 2019), Singapore.
- 12. Cheng, Yiran (Graduated in 2019)
- 13. Zhan, Xingbin (Graduated in 2021)
 - He received the Hong Kong PhD Fellowship (HKPF) from 2017–2020.
- 14. Hu, Jintao (Graduated in 2024)
- 15. Chen, Mingxuan (Graduated in 2024)
- 16. Song, Jiatong (Graduated in 2024)

B. Current RPGs (Ph.D.)

- 1. Gong, Jun (2020)
- 2. Hu, Miaoqing (2020)
- 3. Hu, Runqiu (2021)
- 4. He, Qiande (2022)
- 5. Cui, Jia (2022)

C. Current RPGs (M.Phil.)

- 1. Liu, Mingrui (2023)
- 2. Sun, Yingying (2023)
- 3. Xie, Yifan (2024)

D. Graduated RPGs (M.Phil.)

- 1. Yeung, Jonathan (Graduated in 2015)
- 2. Yang, Linchuan (Graduated in 2016)
 - He has been employed as a Professor at Southwest Jiaotong University since Sep 2019.
- 3. Song, Chenshu (Graduated in 2023)

E. Representative graduated FYP students (B.Eng)

- 1. Tsang, Chun Man (Graduated in 2014)
 - He received the CIHT Best Student Paper Award (2014).
 - He won the "Award of Merit" in the Highways, Railways, and Transportation discipline in the 2014 Paper Competition, the Graduates & Students Division (G&S) of the Institution of Civil Engineers Hong Kong Association (ICE HKA).
- 2. Cheung, Yan Long (Graduated in 2015)
 - He won the Champion in the Highways, Railways, and Transportation discipline in the 2017 Paper Competition, the Graduates & Students Division (G&S) of the Institution of Civil Engineers Hong Kong Association (ICE

HKA) and helped The University of Hong Kong to obtain the '2017 Best Institution Award'.

- 3. Leung, Kai Yin Daniel (Graduated in 2016)
 - He won the CIHT Best Student Paper Award (2016).
- 4. Chan, Wing Lam (Graduated in 2017)
 - She won the CIHT Best Student Paper Award (2017).
 - She got the Champion of the ICE 200 Emerging Engineers Award (2018).

TEACHING AND LEARNING AT HKU

Teaching Interests

- Basic to advanced courses in *Transportation*.
- Core and applied courses in *Civil Engineering*, *Operations Research*, *System Analysis*, and *Mathematics*.

Primary Teaching Responsibilities

- CIVL1011/CIVL2111 Transportation Engineering (B.Eng., Core)
- CIVL2001 Engineering Design and Communications (B.Eng., Core)
- CIVL3010 Management and Communication Skills for Engineers (B.Eng., Elective)
- CIVL3019/CIVL3119 Traffic Engineering (B.Eng., Elective)
- CIVL4101 Capstone Design Project (B.Eng., Core)
- CIVL6054/GEOG7006 Engineering for Transport Systems (M.A., Core; M.Sc., Elective)
- CIVL7006 Optimization Techniques for Transportation Applications (M.Sc., Elective)
- CIVL8012 Optimization Techniques for Engineering Applications (Research Postgraduate, Elective)
- GEOG7011 Research Methods in Transport Studies (M.A., core) (The course is jointly offered by the Department of Civil Engineering and the Department of Geography)
- GEOG7012 Transport Field Trip (M.A., Elective) (The course is jointly offered by the Department of Civil Engineering and the Department of Geography) (2013, 2015, 2017, 2019)
- Engineering Climate Change (The summer course offered by the Faculty of Engineering for exchange students in 2011)
- Transportation Engineering: An Introduction (The summer course offered by the Faculty of Engineering for secondary school students in 2011)

Other Teaching Duties

- A. First Examiners
 - CIVL1011/CIVL2111 Transportation Engineering (2010–2017, 2019–present)
 - CIVL3019/CIVL3119 Traffic Engineering (2012–2017)

- CIVL3020/CIVL3120 Transportation Infrastructure Engineering (2015–present)
- CIVL6054/GEOG7006 Engineering for Transport Systems (2010–present)
- CIVL8012 Optimization Techniques for Engineering Applications (2009–present)
- CIVL7006 Optimization Techniques for Transportation Engineering (2015present)

B. Second Examiners

- CIVL2111 Transportation Engineering (2018)
- CIVL3119 Traffic Engineering (2018–present)
- CIVL6007 Behavioural Travel Demand Modelling (2018–present)
- CIVL6035 Highway Pavement Engineering (2010–2021)
- CIVL6046 Theory of Traffic Flow (2011–present)
- CIVL6047 Traffic Management and Control (2010–present)
- CIVL6057 Special topic in Transportation Engineering B (Road Safety Engineering) (2019–2021)
- CIVL6070 Logistics and Transportation (2010–2016)
- CIVL6084 Statistical Methods for Transportation (2015–2021)
- CIVL7011 The Economics of Transport (2016–2022)

C. Third Examiner

• CIVL7001 Railway Asset Management (2016)

D. Chief Invigilators

- CIVL1011 Transportation Engineering (Dec 2010, Dec 2011, May 2013, May 2023)
- CIVL6054/GEOG7006 Engineering for Transport Systems (Dec 2022, Dec 2023)

E. Interviewer

• CIVL3010 Management and Communication Skills for Engineers (2010–2012, 2015)

F. Course Coordinators

- CIVL6054/GEOG7006 Engineering for Transport Systems (2010–present)
- CIVL1011/CIVL2111 Transportation Engineering (2011–present)
- CIVL3019 Traffic Engineering (2012–2013)
- CIVL3020/CIVL3120 Transportation Infrastructure (2014–present)
- CIVL6057 Road Safety Engineering (2019–2021)
- CIVL7014 Transport Planning and Infrastructure Systems (2017–2021)

G. Thesis/Project Moderators

- CIVL2001 Engineering Design and Communication (B.Eng., Core) (2009–2014)
- CIVL4101 Capstone Design Project (B.Eng., Core) (2015–present)
- CIVL4102 Project (BEng, Core) (2009–present)
- CIVL7009 Dissertation (M.Sc., Core) (2009–present)
- GEOG7013 MATPP Dissertation (2010–2015)
- M.Phil. Thesis (2009–2015)
- Ph.D. Thesis (2014–2018)

H. Internal Examiners for Postgraduate Students

- Ph.D. Students (2011–present)
- M.Phil. Students (2010–2013)
- MATPP Students (2010–2014)

I. Thesis Examination Committee Chairs for Postgraduate Students

• MPhil and PhD students: (2016–present)

Curriculum Development/Reform

A. Departmental Outcome-Based Teaching and Learning Coordinator

- Heavily engaged in outcome-based curriculum design and development for both the undergraduate and postgraduate programs of the Department of Civil Engineering.
- Deeply involved in designing outcome-based measurement for the curricula such as course measurement reports, course measurement summaries, the measurement schedule, and employer surveys.
- Regularly monitor the quality of course measurement reports and summaries.
- Help to prepare documents for the accreditation of both undergraduate and postgraduate programs of the Department of Civil Engineering.
- Participate in workshops/short courses about outcome-based learning.
- Advise on the Minor in Urban Infrastructure Informatics of the Department of Civil Engineering.

B. Course Instructors

- Develop a new course entitled CIVL7006 Optimization Techniques for Transportation Applications for M.Sc. students in 2015, which is based on his research about transportation system optimization.
- Continuously improve the syllabuses of CIVL6054/GEOG7006 Engineering for Transport Systems, CIVL8012 Optimization Techniques for Engineering Applications, GEOG7011 Research Methods in Transport Studies, and GEOG7012 Transport Field Trip.
- Develop the outcome-based syllabuses of CIVL1011/CIVL2111 Transportation Engineering, CIVL3019/3119 Traffic Engineering, CIVL6054/GEOG7006

Engineering for Transport Systems, CIVL7006 Optimization Techniques for Transportation Applications, and CIVL8012 Optimization Techniques for Engineering Applications.

• Develop two summer courses entitled "Engineering Climate Change" and "Transportation Engineering: An Introduction" for exchange students and secondary school students in 2011, respectively.

C. Transportation and Construction Group Coordinator (07/2011-06/2012, 07/2013-06/2014, 07/2016-06/2019)

- Regularly revisit the curriculum of M.Sc.(Eng) in the Transportation Engineering Programme and revise it when necessary.
- Compare the syllabuses of transportation electives for undergraduates with those offered by other universities from time to time and modify them together with the course instructors involved if required.

D. Course Coordinators

- Advise the course instructors of CIVL7018 Data Science for Civil Engineering and CIVL7019 Statistical Methods for Civil Engineering on the syllabuses.
- Advise the course instructors of CIVL3020/CIVL3120 Transportation Infrastructure Engineering to modify the syllabus.
- Advise the course instructors of CIVL7014 Transport Planning and Infrastructure Systems to develop the syllabus. (until 2021)
- Advise the course instructors of CIVL6035 Highway Pavement Engineering (until 2021)

Teaching Innovations

- Motivate his FYP student to do good research in their projects.
- Motivate his research students and the teaching assistants (TAs) of his courses to be the outstanding TAs of the department.
- Discuss with them how to be an excellent TA.
- Exchange tutorial skills with TAs.
 - *Achievements*: Three TAs (Shui, Chin Sum, Wang, Bei, and Wong, Cheuk Pong) obtained the Outstanding TA Awards of the Department of Civil Engineering for the period from 2013–2015, the period from 2013–2014, and the period from 2011–2013, respectively.
- Introduce the departmental teaching award

SERVICE/ADMINISTRATION

External Service

A. Academic Assessor

1. Higher Diploma in Logistics and Transport, HKU School of Professional and Continuing Education, 2011–2017.

B. External Examiners

- 1. PhD thesis, Anna University, Chennai, India, 2014.
- 2. PhD thesis, St. Peter's College of Engineering and Technology, Chennai, India, 2014.
- 3. PhD thesis, Nanyang Technological University, Singapore, 2019.
- 4. PhD thesis, Hong Kong Baptist University, 2019.
- 5. PhD thesis, The Hong Kong Polytechnic University, 2022.
- 6. Diploma in Traffic Engineering Programme, Caritas Institute of Higher Education & Caritas Bianchi College of Careers and Transport Department, 2019–2023.
- 7. Undergraduate program, Department of Civil Engineering, Universiti Malaya, 2023

C. Panel Member

1. Learning Programme Accreditation, Diploma in Transport Operations and Management, MTR Academy (HK) Company Limited, Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ), 2017–2018.

Service Responsibilities at HKU

A. Faculty/University Committee Appointments

- 1. Dissertation Coordinator, Master of Arts in Transport Policy & Planning (MATPP), Jul 2011–Jun 2024.
- 2. *Thesis Examination Committee Chair*, Faculty of Engineering and Faculty of Social Science, 2016–2018, 2021, 2023.
- 3. Member, Board of the Faculty of Engineering, Dec 2009-present.
- 4. *Member*, Working Group on Outcome-based Approach to Student Learning, Jul 2012–Jun 2024.
- 5. *Member*, MATPP Admission Committee, Jul 2011–Jun 2021.
- 6. *Member*, Faculty Academic Advisory Committee, Jul 2015–Jun 2018.
- 7. Member, Faculty Review Committee, Jul 2016–Jun 2017.
- 8. Member, B.Eng. Admissions Committee, Jul 2016–Jun 2020.
- 9. Member, MATPP Board of Examiners, Jul 2017-present.
- 10. *Member*, Honorary Advisory Committee, The MATPP Alumni Association, Aug 2018–present.
- 11. *Member*, Faculty Academic Advisory Committee on Student Enrichment, Jul 2018–Jun 2021.
- 12. Member, Faculty Committee on Undergraduate Curricula, Jul 2020–Jun 2024

13. Member, Task Force on Accreditation of BEng Degrees, Jul 2021–Jun 2024.

B. Departmental Committee Appointments

- 1. Associate Head (Teaching and Learning), Department of Civil Engineering, Jul 2020–present.
- 2. Chairman, Outcome-based Learning Committee, Jul 2015–Jun 2024.
- 3. Chairman, B.Eng. Admission & JUPAS Matters Committee, Jul 2017–Jun 2020.
- 4. Chairman, Curriculum Development Committee, Jul 2020-Jun 2024.
- 5. Deputy Chairman, Academic Advising Committee, Jul 2011–Jun 2020.
- 6. Deputy Chairman, Teaching and Learning Quality Committee, Jul 2015–Jun 2017.
- 7. Deputy Chairman, Taught Postgraduate Committee, Jul 2020–Jun 2024.
- 8. Deputy Programme Director, B.Eng.(CivE), Jul 2017–Jun 2024.
- 9. *Coordinator*, Transportation and Construction Group, Jul 2011–Jun 2012, Jul 2013–Jun 2014, Jul 2016–Jun 2019.
- 10. *Deputy Coordinator*, Transportation and Construction Group, Jul 2012–Jun 2013, Jul 2014–Jun 2015.
- 11. Member, Teaching and Learning Quality Committee, Jul 2020–Jun 2024.
- 12. *Member*, Budget and Finance Committee, Jul 2020–Jun 2024.
- 13. Member, Strategic Planning Committee, Jul 2020–Jun 2023.
- 14. Member, Strategic Development Task Force, Jul 2023–Jun 2024.
- 15. Member, M.Sc.(Eng) Admission, Jul 2010–Jun 2011.
- 16. Member, Taught Postgraduate Committee, Jul 2010–Jun 2011, Jul 2016–Jun 2020.
- 17. Member, M.Sc.(Eng) Examination, Jul 2010–Jun 2012.
- 18. *Member*, Student Staff Consultative Committee, Jul 2010–Jun 2012, Jul 2020–Jun 2024.
- 19. Member, Capstone Design Project, Transportation, Jul 2011–Jun 2013.
- 20. Mentor, Student Matters, Jul 2010-present.
- 21. *Interviewer*, Joint University Programmes Admissions System (JUPAS) students, May 2010, Dec 2020.
- 22. Interviewer, Sun Yat Shan University Student Interview, Jan 2011–Jan 2012.
- 23. Interviewer, Chinese Student Interview for Faculty of Engineering, Jun 2011.

C. Mentors and Advisors

- 1. Advise assistant professors on tenure promotion.
- 2. Advise students for joining competitions about improving the transportation system in Hong Kong.

D. Other Departmental Services

1. *Designer*, Design of the cover of the newsletter of the Department of Civil Engineering, Sep 2011–Feb 2012.

- 2. *Presenter*, Introduce the Department of Civil Engineering and its programmes to the students of Nanyang Technology University and compare the department with theirs, Jul 2011.
- 3. *Helper*, the Information Day of HKU, Explain the department and its programmes to the public, 2010–2013, 2018.
- 4. *Presenter*, Introduce the Department of Civil Engineering and its programmes to the students of Dalian Maritime University, 24 Jan 2013.

KNOWLEDGE EXCHANGE

Selected Contract Research Projects

- 1. Road Management and Road Safety Audit Training 2015, Hong Kong Police Force, HK\$401,600, Mar 13–18, 2015.
- 2. Advanced Traffic Management Course 2016, Hong Kong Police Force, HK\$378,800, Feb 22–Mar 4, 2016.
- 3. Agreement No. CE 31/2016 (TT) Toll Rationalisation Study of Three Road Harbour Crossings and Three Land Tunnels between Kowloon and Sha Tin Feasibility Study, PROJECT: 60531853/1.4, HK\$468,480, AECOM, 1 Feb 2017– 30 Sep 2019.

Professional Society Membership/Service

A. Committee Members

- 1. *Honorary Treasurer*, The Hong Kong Society for Transportation Studies, Apr 2013–Mar 2015, Apr 2017–present.
- 2. *Honorary Deputy Secretary*, The Hong Kong Society for Transportation Studies, Apr 2012–Mar 2013, Apr 2015–Mar 2016.
- 3. *Honorary Deputy Treasurer*, The Hong Kong Society for Transportation Studies, Apr 2016–Mar 2017.
- 4. *Council Member*, The Hong Kong Institution of Highways and Transportation, Dec 2013–Nov 2018.
- 5. *Member*, Committee of the Eastern Section of the Chartered Institute of Logistics and Transport (CILT), Ireland, Jul 2006–Jun 2007.
- 6. *Member*, Transportation Engineering Technical Subcommittee, The Institute of Engineers, Singapore, May 2008–Nov 2009.
- 7. *Member*, Committee on Transportation Network Modeling (ADB30), Transportation Research Board, Apr 2012–Apr 2018.
- 8. *Member*, Transport Policy Committee, The Chartered Institute of Logistics and Transport in Hong Kong, 2014–2024.
- 9. *Young Member*, Committee on Transportation Network Modeling (ADB30), Transportation Research Board, Apr 2009–Apr 2012.

B. Regular Members

- 1. Associate Member, The Hong Kong Society for Transportation Studies (AMHKSTS), Sep 1998–Aug 2003.
- 2. *Graduate Member*, The Institution of Civil Engineers, Sep 2002–Aug 2003.
- 3. Member, The Eastern Asia Society for Transportation Studies, Jun 2006–Jun 2020.

Public & Community Service

A. Chairmen

- 1. Organizing Committee, Behavior in Networks Workshop, Hong Kong, Dec 16, 2011.
- 2. Organizing Committee, The 16th International Conference of HKSTS, Hong Kong, Dec 17–20, 2011.
- 3. Organizing Committee, The 7th International Symposium on Dynamic Traffic Assignment, Hong Kong, Jun 6–8, 2018.
- 4. Organizing Committee, The 9th International Symposium on Transport Network Reliability (INSTR2023), Hong Kong, Dec 13–14, 2023.

B. Co-Chairs

- 1. Organizing Committee, The 25th International Conference of HKSTS, Hong Kong, Dec 9–10, 2021.
- 2. Program Committee, International Conference on Robotics Systems and Vehicle Technology, Wuhan, China, Oct 18–20, 2019.
- 3. Program Committee, The 2021 2nd International Conference on Robotics Systems and Vehicle Technology (RSVT 2021), 2021.
- 4. Program Committee, 2021 8th International Conference on Automation and Logistics (ICAL 2021), Chongqing, China, Jun 3–5, 2021.

C. Committee Members

- 1. Program Committee, International Symposium on Maritime Logistics and Supply Chain Management, Singapore, Apr 23–24, 2009.
- 2. Regional Organizing Committee, The 11th International Conference on Advanced Systems for Public Transport, Hong Kong, Jul 20–22, 2009.
- 3. International Scientific Committee, The 8th Eastern Asia Society of Transportation Studies (EASTS) Conference 2009, Surabaya, Indonesia, Oct 19–22, 2009.
- 4. Organizing Committee, The 15th HKSTS International Conference, Hong Kong, Dec 11–14, 2010.
- 5. International Scientific Committee, The 9th Eastern Asia Society of Transportation Studies (EASTS) Conference 2011, Jeju, Korea, Jun 19–23, 2011.
- 6. Technical Program Committee, The 2011 International Workshop on Intelligent Transportation Systems and Applications, Crete, Greece, Jun 28–30, 2011.

- Program Committee, The 2011 FTRA International Workshop on Vehicular Communication Technology (FTRA WCC-VCT 2011), Jeju, Korea, Dec 12–15, 2011.
- 8. Technical Committee, The 9th Asia Pacific Transportation Development Conference and the 25th ICTPA Annual Conference, Chongqing, China, Jun 29 –Jul 2, 2012.
- 9. Technical Program Committee, The 2012 FTRA International Conference on Advanced IT, Engineering and Management, Jeju, Korea, Jul 10–12, 2012.
- 10. Regional Organizing Committee, The 5th International Symposium on Transportation Network Reliability, Hong Kong, Dec 18–19, 2012.
- 11. Organizing Committee, The 17th HKSTS International Conference, Hong Kong, Dec 15–17, 2012.
- Program Committee, The 2013 FTRA International Conference on Advanced IT, Engineering and Management (FTRA AIM-13) in Seoul, Korea, Feb 21–23, 2013.
- 13. Program Committee, The 2013 World Conference on Information Systems and Technologies (WorldCIST'13), Algarve, Portugal, Mar 27–30, 2013.
- 14. International Scientific Committee, The 10th Eastern Asia Society of Transportation Studies (EASTS) Conference 2013, Taiwan, Sep 9–12, 2013.
- 15. Organizing Committee, The 18th HKSTS International Conference, Hong Kong, Dec 14–16, 2013.
- Program Committee, The FTRA 2013 International Symposium on Ubiquitous Computing and Embedded Systems (UCES-13), Danang, Vietnam, Dec 18–21, 2013.
- Program Committee, The 2014 FTRA International Symposium on Advances in Bio-inspired Computing (Bio-Health Com 2014), Daejeon, Korea, Apr 9–12, 2014.
- 18. Program Committee, The 2014 International Workshop on Advanced Multimedia Computing (AMC-14), Busan, Korea, Apr 23–25, 2014.
- 19. Program Committee, The 5th FTRA International Conference on Creative Converged IT (CCIT 2014), Zhangjiajie, China, May 28–31, 2014.
- 20. International Program Committee, The 2014 International IEEE Conference on Intelligent Transportation Systems (IEEE ITSC 2014), Qingdao, China, Oct 8–11, 2014.
- 21. Organizing Committee, The 19th HKSTS International Conference, Hong Kong, Dec 13–15, 2014.
- 22. SIG C1 Traffic Theory and Modeling, WCTR, 2015-2019.
- 23. Program Committee, The 2015 International Advanced Multimedia Computing (AMC 2015), Jeju, Korea, Feb 24–26, 2015.
- 24. Program Committee, The 2015 International Advanced Intelligent Mobile Computing (AIM 2015), Jeju, Korea, Feb 24–26, 2015.
- 25. Program Committee, The 3rd World Conference on Information Systems and Technologies (WorldCIST'15), Ponta Delgada, São Miguel, Azores Islands, Portugal, Apr 1–3, 2015.
- 26. Program Committee, The 10th International Conference on Systems (ICONS 2015), Barcelona, Spain, Apr 19–23, 2015.

- 27. EASTS Awards/ATS Subcommittee, The 11th Eastern Asia Society of Transportation Studies (EASTS) Conference 2015, Cebu, Philippines, Sep 11–14, 2015.
- Program Committee, Intelligent Information Systems Thematic Track, The 17th Portuguese Conference on Artificial Intelligence, Coimbra, Portugal, Sep 8–11, 2015.
- 29. Organizing Committee, The 20th HKSTS International Conference, Hong Kong, Dec 12–14, 2015.
- 30. Program Committee, The 10th International Conference on Systems (ICONS 2016), Lisbon, Portugal, Feb 21–25, 2016.
- 31. Technical Program Committee, International Conference on Energy Development and Environmental Protection (EDEP 2016), Beijing, China, Jun 11–12, 2016.
- 32. Scientific Review Committee, The Ninth Triennial Symposium on Transportation Analysis (TRISTAN IX), Oranjestad, Aruba, Jun 13–17, 2016.
- Technical Program Committee, The 2016 International Conference on Computer Engineering and Information System (CEIS2016), Changsha, China, Nov 12–13, 2016
- Technical Program Committee, The 2016 International Conference on Artificial Intelligent and Computer Science (AICS2016), Shenzhen, China, Nov 25–27, 2016.
- 35. Technical Program Committee, The 2016 International Conference on Environmental Engineering and Sustainable Development (CEESD 2016), Sanya, China, Dec 9–11, 2016.
- Organizing Committee, The 21st HKSTS International Conference, Hong Kong, Dec 10–12, 2016.
- Technical Program Committee, International Conference on Economic Development and Trade Cooperation (EDTC2016), Wuhan, China, Dec 17–18, 2016.
- 38. Program Committee, The 6th International Conference on Operations Research and Enterprise Systems (ICORES 2017), Porto, Portugal, Feb 23–25, 2017.
- 39. Technical Committee, The 2017 International Conference on Innovation in Artificial Intelligence (ICIAI 2017), Singapore, Feb 24–26, 2017.
- 40. International Advisory Committee, International Conference on Emerging Technology in Structural Engineering (ETSE-2017), KDK College of Engineering, Nagpur, Mar 17–18, 2017.
- 41. Program Committee, The 3rd International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2017), Porto, Portugal, Apr 22–24, 2017.
- 42. Technical Program Committee, International Conference on Service Science, Technology and Engineering (SSTE2017), Suzhou, China, May 19–21, 2017.
- 43. Technical Committee, The 2017 International Conference on Environmental Protections and Urban Development (CEPUD 2017), Siem Reap, Cambodia, Jun 1–3, 2017.

- 44. Technical Program Committee, International Conference on Intelligent Transportation Engineering and Smart City (ITESC 2017), Guilin, China, Aug 23–25, 2017.
- 45. Technical Program Committee, The 2017 International Conference on Geomatics and Civil Engineering (GCE2017), Shanghai, China, Sep 8–10, 2017.
- 46. EASTS Awards/ATS Subcommittee, The 12th Eastern Asia Society of Transportation Studies (EASTS) Conference 2017, Ho Chi Minh City, Vietnam, Sep 18–21, 2017.
- 47. Technical Program Committee, The 20th International Conference on Intelligent Transportation Systems (ITSC2017), Yokohama, Japan, Oct 16–19, 2017.
- 48. Technical Program Committee, The 2017 International Conference on Wireless Communications, Networking and Applications (WCNA 2017), Shenzhen, China, Oct 20–22, 2017.
- 49. Organizing Committee, The 22nd HKSTS International Conference, Hong Kong, Dec 9–11, 2017.
- 50. Program Committee, The 7th International Conference on Operations Research and Enterprise Systems (ICORES 2018), Funchal, Madeira, Portugal, Jan 24–26, 2018.
- 51. Advisory Board, Ageing Summit 2018, Online, Feb 26–27, 2018.
- 52. Program Committee, The 4th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS), Funchal, Madeira, Portugal, Mar 16–18, 2018.
- 53. Organizing Committee, The 23rd HKSTS International Conference, Hong Kong, Dec 8–10, 2018.
- 54. Technical Program Committee, The 2nd Annual International Conference on Wireless Communications, Networking and Applications (WCNA 2018), Wuhan, Dec 14–16, 2018.
- 55. Conference Technical Committee, The 8th International Conference on Transportation and Traffic Engineering, Beijing, China, Dec 12–23, 2018.
- 56. Technical Committee, 2018 7th International Conference on Transportation and Traffic Engineering (ICTTE 2018), Beijing, China, Dec 21–23, 2018.
- 57. Conference Committee, The 3rd International Conference on Information Science, Computer Technology and Transportation (ISCTT 2018), Xi'an, China, Dec 28–30, 2018.
- 58. International Program Committee, The 8th International Conference on Operations Research and Enterprise Systems (ICORES 2019), Prague, Czech Republic, Feb 19–21, 2019.
- 59. Program Committee, The 5th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2019), Heraklion Crete, Greece, May 3–5, 2019.
- 60. Technical Program Committee, The 2019 5th International Conference on Advanced Materials and Construction Engineering (ICAMCE 2019), Suzhou, China, Mar 29–31, 2019.
- 61. Country and Area Representative, The 15th WCTR, Mumbai, India, May 26–31, 2019.

- 62. International Scientific Programme Committee, CIB World Building Congress 2019 (CIB WBC 2019), Hong Kong, Jun 17–21, 2019.
- 63. Scientific Committee, The 1st International Conference on Engineering, Science and Technology (ICEST 2019), Colombo, Sri Lanka, Jun 27–28, 2019.
- 64. Technical Committee, The 2019 International Conference on Water Security and Management (WSM 2019), Guilin, China, Jun 27–29, 2019.
- 65. International Advisory Board, The 11th The International Workshop on Computational Transportation Science & Annual Meeting of Transportation Management Research Association, Tianjin, China, Jun 29–30, 2019.
- 66. Technical Committee, The 5th International Conference on Innovation and Industrial Logistics (ICIIL2019), Paris, France, Aug 21–23, 2019.
- 67. International Scientific Committee, The 3rd International Conference on Traffic Engineering and Transportation System (ICTETS 2019), Henan, China, Sep 20–22, 2019.
- 68. Organizing Committee, International Mechanical Engineering Conference, Dubai, UAE, Oct 17–18, 2019.
- 69. Technical Committee, 2nd International Conference on Environmental and Water Resources Engineering (EWRE 2019), Shanghai, China, Oct 18–20, 2019.
- Organizing Committee, 2019 International Conference on Frontiers of Control and Sensor Networks (CFCSN 2019), Prague, Czech Republic, Nov 25–27, 2019.
- Technical Committee, The 4th International Conference on Environmental Engineering and Sustainable Development (CEESD 2019), Xiamen, China, Dec 5–7, 2019.
- 72. Organizing Committee, The 24th HKSTS International Conference, Hong Kong, Dec 14–16, 2019.
- 73. Conference Technical Committee, The 8th International Conference on Transportation and Traffic Engineering (ICTTE 2019), Auckland, New Zealand, Dec 19–21, 2019.
- 74. Conference Technical Committee, 2nd International Conference on Mechanical Engineering and Power Engineering (MEPE 2019), Auckland, New Zealand, Dec 19–21, 2019.
- 75. Technical Program Committee, The 3rd Annual International Conference on Wireless Communications, Networking and Applications (WCNA 2019), Guangdong, China, Dec 20–21, 2019.
- 76. Organizing Committee, The 7th International Conference on Logistics and Supply Chain Management, Wuhan, China, Dec 21–22, 2019.
- 77. Technical Program Committee, 2020 International Conference on Control and Decision (ICoCD 2020), Sydney, Australia, Feb 14–16, 2020.
- 78. Program Committee, The 9th International Conference on Operations Research and Enterprise Systems (ICORES), Valletta, Malta, Feb 22–24, 2020.
- 79. Program Committee, The 6th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2020), Prague, Czech Republic, May 2–4, 2020.
- 80. Technical Committee, 2020 6th International Conference on Innovation and Industrial Logistics (ICIIL2020), Shenzhen, China, Aug 28–30, 2020.

- 81. Scientific Committee, The 6th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'20), online, Oct 18 20, 2020.
- 82. International Scientific Committee, 2020 International Conference on Road and Traffic Engineering, Jiaozuo, China, Dec 4–6, 2020.
- 83. International Program Committee, The 10th International Conference on Operations Research and Enterprise Systems (ICORES), online, Feb 4–6, 2021.
- 84. Program Committee, The 7th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2021), online, Apr 28 –30, 2021.
- 85. International Scientific Committee, The 2021 5th International Workshop on Renewable Energy and Development (IWRED 2021), Chengdu, China, Apr 23–25, 2021.
- 86. International Scientific Committee, The 8th International Symposium on Transport Network Reliability, Stockholm, Sweden, Jun 16–18, 2021.
- 87. International Scientific Advisory Committee, The 8th International Symposium on Dynamic Traffic Assignment, Seattle, USA, Jun 28 Jul 02, 2021.
- Program Committee, The Tenth International Conference on Advances in Vehicular Systems, Technologies and Applications (VEHICULAR 2021), Nice, France, Jul 18–22, 2021.
- 89. Technical Committee, 2021 7th International Conference on Innovation and Industrial Logistics (ICIIL 2021), Macau, China, Aug 9–11, 2021.
- 90. International Technical Committee, 2021 9th International Conference on Traffic and Logistic Engineering (ICTLE 2021), Macau, China, Aug 9–11, 2021.
- 91. Organizing Committee, International Conference on Civil, Structural and Environmental Engineering, Lyon, France, Sep 27–29, 2021.
- 92. Scientific Committee, The 7th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'21), online, Oct 24–26, 2021.
- 93. Technical Program Committee, 6th International Conference on Environmental Engineering and Sustainable Development (CEESD 2021), Singapore, Dec 2–5, 2021.
- 94. Technical Committee, 2021 10th International Conference on Transportation and Traffic Engineering (ICTTE 2021), online, Dec 24–26, 2021.
- 95. International Program Committee, The 11th International Conference on Operations Research and Enterprise Systems (ICORES), online, Feb 3–5, 2022.
- 96. Organizing Committee, International Conference on Civil, Structural and Environmental Engineering (ICCSEE2022), Barcelona, Spain, Mar 10–12, 2022.
- 97. Program Committee, The Eleventh International Conference on Advances in Vehicular Systems, Technologies and Applications (VEHICULAR 2022), Venice, Italy, Mar 22–26, 2022.
- 98. Scientific Committee, 7th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'22), Lisbon, Portugal, Apr 13–15, 2022.
- 99. Program Committee, The 8th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2022), online, Apr 27 –29, 2022.
- 100. Committee Member, The International Meet on Industrial & Manufacturing Engineering (INDUSTRIALMEET2022), Copenhagen, Denmark, Jun 20–22, 2022.

- 101. Technical Program Committee, 2022 10th International Conference on Traffic and Logistic Engineering (ICTLE 2022), Macau, China, Aug 12–14, 2022.
- 102. Technical Committee, The 8th International Conference on Innovation and Industrial Logistics (ICIIL 2022), Macau, China, Aug 12–14, 2022.
- 103. Technical Committee, 2022 7th International Conference on Environmental Engineering and Sustainable Development (CEESD 2022), Nanjing, China, Oct 28–30, 2022.
- 104. Organizing Committee, The 26th HKSTS International Conference, Hong Kong, Dec 12–13, 2022.
- 105. Technical Committee, 2022 11th International Conference on Transportation and Traffic Engineering (ICTTE 2022), online, Dec 27–29, 2022.
- 106. International Program Committee, The 2022 International Conference on Geosynthetics and Environmental Engineering (ICGEE2022), Jeju Island, South Korea, Dec 30–31, 2022.
- 107. International Program Committee, The 12th International Conference on Operations Research and Enterprise Systems (ICORES), Lisbon, Portugal, Feb 19–21, 2023.
- 108. Program Committee, The Twelfth International Conference on Advances in Vehicular Systems, Technologies and Applications (VEHICULAR 2023), Barcelona, Spain, Mar 13–17, 2023.
- 109. Program Committee, The 9th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2023), Prague, Czech Republic, Apr 26–28, 2023.
- 110. International Advisory Committee, The 5th International Symposium on Multimodal Transportation (ISMT2023), Dalian, China, Jul 19–21, 2023.
- 111. Technical Committee, 2023 11th International Conference on Traffic and Logistic Engineering (ICTLE 2023), Macau, China, Aug 25–27, 2023.
- 112. Technical Program, The 9th International Conference on Innovation and Industrial Logistics (ICIIL 2023), Macau, China, Aug 25–27, 2023.
- 113. Organizing Committee, The 3rd Global Summit on Civil, Architectural and Environmental Engineering (GSCAEE2023), London, UK, Aug 28–30, 2023.
- 114. Scientific Committee, The 25th Euro Working Group on Transportation (EWGT2023), Santander, Spain, Sep 6–8, 2023.
- 115. Organizing Committee, The 3nd International Meet on Applied Science, Engineering and Technology (ASETMEET2024), Dubai, UAE, Sep 16–18, 2023.
- 116. Organizing Committee, The 4th Global Congress and Expo on Infrastructure & Construction (GCEIC-2023), Milan, Italy, Sep 28–30, 2023.
- 117. Transport Advisory Committee, Hong Kong SAR, Oct 2023-Sep 2026.
- 118. Organizing Committee, The 2nd Global Meet on Civil, Structural and Environmental Engineering, Barcelona, Spain, Oct 19–21, 2023.
- 119. Scientific Committee, Global Congress on Civil, Infrastructure and Environmental Engineering (GCCIVIL2023), Dubai, UAE, Oct 23–25, 2023.

- 120. Technical Committee, 2023 8th International Conference on Environmental Engineering and Sustainable Development (CEESD 2023), Matsue City, Japan, Nov 1–3, 2023.
- 121. Organizing Committee, 2nd International Experts Meet on Applied Science, Engineering, and Technology (IEMASET-2023), online, Nov 25–26, 2023.
- 122. Organizing Committee, Global Webinar on Civil and Infrastructure Engineering, Nov 27–28, 2023.
- 123. Organizing Committee, The 27th HKSTS International Conference, Hong Kong, Dec 11–12, 2023.
- 124. Technical Committee, 2023 12th International Conference on Transportation and Traffic Engineering (ICTTE 2023), Wuhan, China, Dec 29–31, 2023.
- 125. International Program Committee, The 13th International Conference on Operations Research and Enterprise Systems (ICORES), Rome, Italy, Feb 24–26, 2024.
- 126. Program Committee, The Thirteenth International Conference on Advances in Vehicular Systems, Technologies and Applications (VEHICULAR 2024), Barcelona, Spain, Mar 10–14, 2024.
- 127. Scientific Committee, The 9th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'24), London, UK, Apr 14–16, 2024.
- 128. Program Committee, The 10th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2024), Porto, Portugal, May 2–4, 2024.
- 129. Organizing Committee, The World Summit and Expo on Infrastructure and Construction (INFRASUMMIT2024), Lyon, France, May 13–15, 2024.
- 130. Technical Program Committee, 2024 2nd Asia Conference on Environmental Science, Green Energy and Applications (ESGEA 2024), Chongqing, China, May 17–19, 2024.
- 131. International Program Committee, The 2024 35th IEEE Intelligent Vehicles Symposium (IV) (IEEE IV 2024), Jeju Island, Jun 2–5, 2024.
- 132. Organizing Committee, The International Congress and Expo on Civil and Structural Engineering (EUROCIVIL2024), Edinburgh, Scotland, Jun 13–15, 2024.
- 133. Scientific Committee, The Global Summit on Civil, Structural and Environmental Engineering (GSCSEE2024), Porto, Portugal, Jun 17–19, 2024.
- 134. Organizing Committee, International Experts Meets on Applied Science, Engineering and Technology (IEMASET-2024), Dubai, UAE, Jun 24–25, 2024.
- 135. Organizing Committee, The 25th International Symposium on Transportation and Traffic Theory (ISTTT25), Ann Arbor, Michigan, USA, July 15–17, 2024.
- 136. Scientific Committee, The 26th Euro Working Group on Transportation (EWGT), Lund, Sweden, Sep 4–6, 2024.
- 137. Committee Member, Global Experts International Meet on Applied Science, Engineering and Technology (GEMASET2024), Porto, Portugal, Sep 17–19, 2024.
- 138. Scientific Committee, Global Congress on Infrastructure and Construction (GCINFRA2024), Dubai, UAE, Oct 23–25, 2024.

- 139. Scientific Committee, International Conference on Innovation in Civil, Structural and Environmental Engineering (CIVILENG2024), Rome, Italy, Oct 23–25, 2024.
- 140. Technical Committee, 2024 9th International Conference on Environmental Engineering and Sustainable Development (CEESD 2024), Ho Chi Minh City, Vietnam, Dec 5–7, 2024.
- 141. Organizing Committee, The 28th HKSTS International Conference, Hong Kong, Dec 9–10, 2024.
- 142. Organizing Committee, Global Conference on Civil, Structural and Environmental Engineering (GCCSEE2025), Berlin, Germany, Mar 20–22, 2025.

D. MC

1. *MC*, The 5th Asia Pacific on Transport and the Environment, Singapore, Dec 7–8, 2007.

E. Moderators

- 1. Business Environment Council Enviro Series Conference, Hong Kong, Nov 14, 2012.
- 2. Hong Kong Institution of Highways and Transportation (HKIHT) Cross-strait Highway and Transportation Development Conference, Hong Kong, Nov 3–5, 2014.

F. Session Chairs

- 1. Business impact section, The 38th Annual Universities Transport Study Group (UTSG) Conference, Dublin, Ireland, Jan 4–7, 2006.
- 2. The 6th Intentional Conference on Traffic & Transportation Studies, Nanning, China, Aug 5, 2008.
- 3. The Second International Symposium on Dynamic Traffic Assignment, Belgium, Aug 18–20, 2008.
- 4. International Symposium on Maritime Logistics and Supply Chain Systems 2009, Singapore, Apr 23–24, 2009.
- 5. The 11th International Conference on Advanced Systems for Public Transport, Hong Kong, Jul 20–22, 2009.
- 6. The 8th EASTS Conference, Surabaya, Indonesia, Nov 16–19, 2009.
- 7. Innovations in Pricing of Transportation Systems Conference & Workshop, Florida, USA, May 12–14, 2010.
- 8. The 4th Nordic Optimization Symposium, Aarhus, Denmark, Sep 30–Oct 2, 2010.
- 9. The 15th HKSTS International Conference, Hong Kong, Hong Kong, Dec 11–14, 2010.
- 10. The 16th HKSTS International Conference, Hong Kong, Dec 17–20, 2011.

- 11. The 4th International Symposium on Dynamic Traffic Assignment, Martha's Vineyard, Massachusetts, USA, Jun 4–6, 2012.
- 12. The 10th EASTS Conference, Taiwan, Sep 9–12, 2013.
- 13. The 2014 INFORMS Annual Meeting, San Francisco, USA, Nov 9–12, 2014.
- 14. The 19th HKSTS International Conference, Hong Kong, Dec 13–15, 2014.
- 15. The CORS/INFORMS 2015 Joint International Meeting, Montréal, Canada, Jun 14–17, 2015.
- 16. The 20th HKSTS International Conference, Hong Kong, Dec 12–14, 2015.
- 17. The 21st HKSTS International Conference, Hong Kong, Dec 10–12, 2016.
- 18. The 14th International Conference on Advanced Systems in Public Transport (CASPT2018), Brisbane, Australia, Jul 23–25, 2018.
- 19. 2020 2nd International Conference on Civil, Architecture and Urban Engineering (ICCAUE 2020), Xi'an, China, Aug 14–16, 2020.
- 20. The 25th HKSTS International Conference, Hong Kong, Dec 9–10, 2021.
- 21. The 26th HKSTS International Conference, Hong Kong, Dec 12–13, 2022.

G. Judges

- 1. Graduates & Students Division of the Institution of Civil Engineers, Ireland Association Paper Competition, Jan 30, 2006.
- 2. Singapore Science and Engineering Fair (SSEF), Mar 6, 2008.
- 3. TRISTAN Green Transportation Award, The Ninth Triennial Symposium on Transportation Analysis (TRISTAN IX), Oranjestad, Aruba, Jun 13–17, 2016.
- 4. 2020 2nd International Conference on Civil, Architecture and Urban Engineering (ICCAUE 2020), Xi'an, China, Aug 14–16, 2020.

H. Project Proposal Reviewers

- 1. Neptune Orient Lines (NOL) Fellowship Programme, Singapore, 2008.
- 2. Engineering and Physical Sciences Research Council (EPSRC), 2014.
- 3. The National Natural Science Foundation of China (NSFC), 2014–present.
- 4. Competitive Research Funding Schemes for the Local Self-financing Degree Sector under Research Grants Council, 2017–present.
- 5. The Academic Research Fund (AcRF) Tier 1 Grant, Nanyang Technological University, 2017.
- 6. Singapore's Urban Mobility Grand Challenge Grant, Land Transport Authority, Singapore, 2017.
- 7. The Science and Technology Development Fund, Macau, 2017.
- 8. C2 funding, KU Leuven Research Council, 2023-present.

I. Book Proposal Reviewers

1. "Advances in Time Series Forecasting" by C.H. Aladag, Bentham Science Publishers, 2009.

- 2. "The Economics of Transport" by J. Cowie and S. Ison, Routledge, Taylor & Francis, 2006.
- 3. "Introduction to Transportation Engineering Ideas and Concepts" by U. Weidmann et al., Spon Press (an imprint of Taylor & Francis), 2011.
- 4. "Current Trends in Intelligent Transport Systems: Technologies and Applications" by A. Perallos et al., John Wiley & Sons, 2013.
- 5. "Air Pollution: Science, Engineering and Management Fundamentals" by Professor Mukesh Khare, CRC Press/Taylor and Francis Group.

J. Journal Paper Reviewers

- 1. Applied Mathematical Modelling
- 2. Applied Mathematics and Computation
- 3. Built Environment Project and Asset Management
- 4. Central European Journal of Engineering
- 5. Central European Journal of Operations Research
- 6. Computer-Aided Civil and Infrastructure Engineering
- 7. Computers & Operations Research
- 8. Discrete Dynamics in Nature and Society
- 9. EURO Journal on Transportation and Logistics
- 10. European Journal of Operational Research
- 11. Expert Systems with Applications
- 12. HKIE Transactions
- 13. IEEE Transactions on Intelligent Transportation Systems
- 14. IET Journal
- 15. IIE Transactions
- 16. Insects
- 17. Integrated Computer-Aided Engineering
- 18. International Journal of ITS Research
- 19. International Journal of Sustainable Transportation
- 20. International Journal of Traffic and Transportation Engineering
- 21. International Journal of Transportation
- 22. Journal of Advanced Transportation
- 23. Journal of Civil Engineering and Management
- 24. Journal of Eastern Asia Society of Transportation Studies
- 25. Journal of Financial Management of Property and Construction
- 26. Journal of Global Optimization
- 27. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations
- 28. Journal of King Saud University (Science)
- 29. Journal of the Operational Research Society
- 30. Journal of Traffic and Transportation Engineering
- 31. Journal of Transport Geography

- 32. Journal of Transportation Engineering
- 33. Journal of Transportation Systems Engineering and Information Technology
- 34. Journal of Urban Planning and Development
- 35. Knowledge-Based Systems
- 36. Mathematical and Computer Modeling
- 37. Mathematical Problems in Engineering
- 38. Network and Spatial Economics
- 39. Neurocomputing
- 40. OR spectrum
- 41. Proceedings of the Institution of Civil Engineers Transport
- 42. Public transport
- 43. Research in Transportation Economics
- 44. Soft Computing
- 45. The Scientific World Journal
- 46. Transactions on Modeling and Computer Simulation
- 47. Transport
- 48. Transport Policy
- 49. Transportation
- 50. Transportation Letters: The International Journal of Transportation Research
- 51. Transportation Research Part A: Policy and Practice
- 52. Transportation Research Part B: Methodological
- 53. Transportation Research Part C: Emerging Technologies
- 54. Transportation Research Part D: Transport and Environment
- 55. Transportation Research Part E: Logistics and Transportation Review
- 56. Transportation Research Record: Journal of the Transportation Research Board
- 57. Transportation Science
- 58. Transportmetrica
- 59. Transportmetrica A: Transport Science
- 60. Transportmetrica B: Transport Dynamics
- 61. Travel Behaviour and Society

Other Knowledge Exchange Activities

- Transfer knowledge of junction and pedestrian crossing design to the staff of Transport Department, Hong Kong, Jan 25, 2018.
- Advise start-up companies on the development of the transport app "Hopper" to improve the quality of red minibus services and the prosperity of the industry, Jan 2019.
- Give opinions about the feasibility of introducing bike lanes in urban areas in HK on TVB, Apr 2019.