CURRICULUM VITAE

Qingli Liu

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Address：11 Yuk Choi Road, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong.

EDUCATION

09/2022-12/2025 The Department of Aeronautical and Aviation Engineering, The Hong Kong Polytechnic University
Chief supervisor: Prof. LI Fan

09/2019-07/2022 School of Management Science and Real Estate, Chongqing University, China (Major: Technical Economics and Management)
Chief supervisor: Prof. YE Gui

09/2014-06/2018 School of Business Administration, Liaoning Technical University China (Major: Engineering Management)

RESEARCH INTERESTS

- Low-altitude aviation safety
- Accident analysis and investigation
- Intelligent transportation safety systems
- Human–AI knowledge modeling and transfer
- LLMs, prompt engineering, agentic AI, multi-agent

PUBLICATIONS (in chronological order)

Liu, Q., Huang, R., & Li, F*. From Accident Evidence to Causal Graphs: Field-Theory–Guided General Aviation Accident Investigation with LLMs. ***Reliability Engineering & System Safety***. (Under Review) **(JCR Q1, IF=11.0, 2/106)**

Liu, Q., Song, P., & Li, F*. (2025). Exploring the dynamic determinants of general aviation accidents across flight phases and time: A random parameter bivariate probit approach with heterogeneity in means. ***Analytic Methods in Accident Research***, 100386. **(JCR Q1, IF=12.6, 2/62)**

Liu, Q., Li, F*., Ng, K. K., Han, J., & Feng, S. (2025). Accident investigation via LLMs reasoning: HFACS-guided Chain-of-Thoughts enhance general aviation safety. ***Expert Systems with Applications***, 269, 126422. **(JCR Q1, IF=7.5, 6/106)**

PUBLICATIONS (in chronological order)

Liu, Q., Yan, Y., Li, F*., & Feng, S. (2024). Show the Way: Accelerating General Aviation Accident Investigations through LLMs and HFACS. In: Gesa Praetorius, Charlott Sellberg and Riccardo Patriarca (eds) ***Advances in Human Factors of Transportation. AHFE (2024) International Conference***. AHFE Open Access, vol 148. AHFE International, USA. http://doi.org/10.54941/ahfe1005197.

Liu, Q., Li, F*., & Ng, K. K. (2024). Unveiling the determinants of injury severities across age groups and time: A deep dive into the unobserved heterogeneity among pedestrian crashes. ***Analytic Methods in Accident Research***, 100336. **(JCR Q1, IF=12.6, 2/62)**

Yang, Y., Zhao, B*., & **Liu, Q**. (2024). Exploring the driving mechanism and path of BIM for green buildings. ***Journal of Civil Engineering and Management***, 30(1), 67-84. **(JCR Q1, IF=3.7, 46/183)**

Han, S., Li, F*., Wang, T., Zhang, Y., & **Liu, Q.** (2023, October). Assessment of the Crew On-Duty Status Based on the Dynamic Probabilistic Risk Platform. ***In Proceedings of the AAAI Symposium Series*** (Vol. 1, No. 1, pp. 73-79).

Liu, Q., Han, S., Li, F*., & Lee, C. H. (2023). Group Dynamics and Air Traffic Controllers' Safety Behaviors: Self-Efficacy as a Mediator. ***In Leveraging Transdisciplinary Engineering in a Changing and Connected World*** (pp. 202-211).IOS Press.

Ye, G*, Wang Y, Ren M, **Liu Q**, & Yu J. (2023). Study on influence effect of physical fatigue on unsafe behavior of construction workers. ***Journal of Safety Science and Technology***,19(01):122-127. (CSCD) (Published in Chinese)

Liu, Q., Ye, G*., Yang, J., Xiang, Q., & Liu, Q. (2022). Construction workers' representativeness heuristic in decision making: The impact of demographic factors. ***Journal of Construction Engineering and Management***, 148(4), 04022005. (**JCR Q1, IF=5. 1, 5/61**)

Wang Dan*, **Liu Q.**, & Liu Guofeng, 2017. Analysis of formwork collapse accident based on accident 2-4 cause model. ***Journal of Engineering Management*** (Published in Chinese)

PROJECT EXPERIENCE (in chronological order)

▪Member (2025) Looking but Not Seeing? Mitigating Inattentional Blindness in Remote Digital Towers for Safe and Watchful Air Traffic Control, Early Career Scheme (ECS), University Grants Committee (UGC), 557,571HKD, 2025.01–2027.12.

▪Member (2023) Driving Style-based Adaptive Virtual Training Platform: Build Safe Human Driving Habits in Autonomous driving, Smart Traffic Fund, 1,974,381HKD, 2023.08– 2025.08, P0042784.

▪Member (2022) Investigation of an online data-driven intelligent automation platform for drivers considering the psychological condition instability and behaviours for a sustainable and safe transportation system, Smart Traffic Fund, 5,000,000 HKD, 2022.09–2024.08, P0038510.