

## 許聿廷 副教授 Yu-Ting Hsu

### Associate Professor

學歷/美國普渡大學博士

Ph. D., Purdue Univ., U.S.A.

專長/運輸規劃、運輸系統分析、旅行者行為、交通路網分析

Transportation Planning, Transportation System Analysis, Evacuation Planning and Operation, Traveler Behavior and Traveler Information System, Traffic and Spatial Network Analysis

### (A) 期刊論文(Journal Papers) (\*: 通訊作者)

#### a. SCI/SSCI 期刊論文

1. Su, Y.M., Chen, J.H.\*, Cheng, J.Y., **Hsu Y.T.**, Huang, M.C. (2021) “Rough-set based association rules toward performance of high friction road markings.” *Journal of Transportation Engineering: Part B, Pavements* (accepted).
2. **Hsu, Y.T.**, Yan, S.\*, Huang, P. (2021) “The depot and charging facility location problem for electrifying urban bus services.” *Transportation Research Part D: Transport and Environment*, 100, 103053.
3. Hsiao, C.C., Sun, M.C., Chen, A.Y., **Hsu, Y.T.\*** (2021) “Location problems for shelter-in-place deployment: A case study of vertical evacuation upon dam-break floods.” *International Journal of Disaster Risk Reduction*, 57, 102048.
4. Wang, P.C., **Hsu, Y.T.\***, Hsu, C.W. (2021) “Analysis of waiting time perception of bus passengers provided with mobile service.” *Transportation Research Part A: Policy and Practice*, 145, 319–336.
5. Ni, Y.C., Lo, H.H., **Hsu, Y.T.\***, Huang, H.J. (2020) “Exploring the effects of passive transit signal priority design on bus rapid transit operation: a microsimulation-based optimization approach.” *Transportation Letters*, pp. 1–14.
6. Miralinaghi, M., Seilabi, S.E., Chen, S., **Hsu, Y.T.**, Labi, S. (2020). “Optimizing the selection and scheduling of multi-class projects using a Stackelberg framework.” *European Journal of Operational Research*, 286(2), pp. 508–522.
7. Lee, W.Y., **Hsu, Y.T.\***, Suen, C.S., Wu, M.H., Ni, Y.C. (2020). “Exploring intercity trip patterns of railway systems on national holidays using deep auto-encoder.” *Transportation Research Record*. <https://doi.org/10.1177/0361198120917385>
8. Chu, J.C., Korsesthakarn, K., **Hsu, Y.T.\***, Wu, H.Y. (2019). “Models and a solution algorithm for planning transfer synchronization of bus timetables.” *Transportation Research Part E: Logistics and Transportation Review*, 131, pp.247–266.
9. Lai, Y.C.\*, Huang, C.W., **Hsu, Y.T.** (2018) “Estimation of rail passenger flow and system utilization with ticket transaction and gate data.” *Transportation Planning and Technology*, 41(7), pp. 752–778.
10. Chang, T. H.\*, Tseng, J. S., Hsieh, T. H., **Hsu, Y.T.**, Lu, Y. C. (2018) “Green transportation implementation through distance-based road pricing.” *Transportation Research Part A: Policy*

*and Practice*, 111, pp. 53–64.

b. 非屬 SCI/SSCI 之 EI 或 TSSCI 期刊論文

1. 李弘亦、許聿廷 (2021) 基於事件隨機性考量之國道緊急應變派遣模式。運輸計劃季刊(已接受)。
2. Hsu, Y.T.\*, Lin, W.R., Lai, Y.C., Kao, T.C. (2017) “An aggregate approach for high-speed rail ridership forecasting: model development based on case revisit of Taiwan High-Speed Rail.” *Journal of the Chinese Institute of Transportation*, 29(4), pp. 337–364.

c. 其他期刊論文

1. Wu, Y.H., Kang, L., **Hsu, Y.T.\***, Wang, P.C. (2019) “Exploring trip characteristics of bike-sharing system uses: effects of land-use patterns and pricing scheme change.” *International Journal of Transportation Science and Technology*, 8(3), pp. 318–331.
2. Chien, S.T., **Hsu, Y.T.\*** (2017) “Research on interactions between high-speed rail facilities and regional development.” *Journal of the Eastern Asia Society for Transportation Studies*, 12, pp. 784–803.

**(B) 研討會論文(Conference Papers) (\*: 通訊作者)**

a. 國外會議論文

1. 翁階鏞、鄒昀瑾、許聿廷「大眾運輸導向型發展下之轉乘行為研究」第 29 屆海協兩岸都市交通學術研討會 (南京，中國大陸，2021 年 10 月)。
2. Chang, R.Y., Sakai, K., **Hsu Y.T.\*** “Optimization of dock distribution in a bike-sharing system considering travelers’ multi-station choices.” 14th International Conference of the Eastern Asia Society for Transportation Studies (online @Hiroshima, Japan, Sep. 2021).
3. Su, Y.C., **Hsu Y.T.\*** “Signal offset design based on upstream vehicle speeds: considering vehicle behavior in dilemma zones.” 14th International Conference of the Eastern Asia Society for Transportation Studies (online @Hiroshima, Japan, Sep. 2021).
4. Mao, M.N., Ni, Y.C., **Hsu, Y.T.\***, Wang, S.H., Hong, C.W., Lai, C.M. “Investigating passengers’ perspectives on transfer station design of urban railway systems: a case study in Taipei Metro.” 100th Transportation Research Board (online @Washington, DC, Jan. 2021).
5. Chou, C.Y., **Hsu, Y.T.\*** “Study of societal resilience against natural disasters: perspectives of risk perception and prospect theory.” 26th International Sustainable Development Research Society Conference (online @Budapest, Hungary, Jul. 2020).
6. Lee, W.Y., **Hsu, Y.T.\***, Suen, C.S., Wu, M.H., Ni, Y.C. “Exploring intercity trip patterns of railway systems on national holidays using deep auto-encoder.” 99th Transportation Research Board (Washington, DC, Jan. 2020).
7. Miralinaghi, M.\*, Tabesh, M.T., Seilabi, S.E., **Hsu, Y.T.**, Labi, S., Fricker, J.D. “Bi-Level Multi-Objective Optimization of Urban Road Project Scheduling Considering Contract Bundling.” 98th Transportation Research Board (Washington, DC, Jan. 2020).
8. Lee, K.C., **Hsu, Y.T.\***, Yeh, N.T. “Exploring smart card data of an urban railway system: investigation of spatiotemporal patterns of trip distribution and demand-side characteristics.” 12th World Congress on Railway Research (Tokyo, Japan, Oct. 2019).

9. Lee, K.C., **Hsu, Y.T.\*** “Exploring urban trip-activity patterns based on smart card data and land-use characterization.” 32nd KKHTCNN Symposium on Civil Engineering (Daejeon, Korea, Oct. 2019).
10. Chang, C., **Hsu, Y.T.\***, Lai, J.S., Ke, K.Y. “Dynamic traffic assignment upon short-duration intense rainfall events.” 32nd KKHTCNN Symposium on Civil Engineering (Daejeon, Korea, Oct. 2019).
11. Li, H.Y., **Hsu, Y.T.\*** “Stochastic dynamic dispatch model for freeway incident response.” 32nd KKHTCNN Symposium on Civil Engineering (Daejeon, Korea, Oct. 2019).
12. Cheng, S.H.\*, Wang, J.Y., **Hsu, Y.T.**, Chen, C.H., Chen, C.Y. “Development of a vehicle monitoring system for low emission zone application based on OBD technology.” 3rd International Conference on Smart Vehicular Technology, Transportation, Communication and Application (Arad, Romania, Oct. 2019).
13. Lou, S.Y., Hsu, W.Y., **Hsu, Y.T.\*** “Exploring holiday trip patterns on freeways based on electronic toll collection data.” 13th International Conference of the Eastern Asia Society for Transportation Studies (Colombo, Sri Lanka, Sep. 2019).
14. Tseng, M.Y., **Hsu, Y.T.\***, Chang, P.C. “Exploring cyclist flow patterns at signalized crossing: perspective of cyclist-pedestrian conflict analysis.” 13th International Conference of the Eastern Asia Society for Transportation Studies (Colombo, Sri Lanka, Sep. 2019).
15. Chen, P.A., Wu, H.T., **Hsu, Y.T.\*** “Widening narrow alleys to enhance response efficiency for fire emergency from the perspective of urban roadway network analysis.” 13th International Conference of the Eastern Asia Society for Transportation Studies (Colombo, Sri Lanka, Sep. 2019).
16. Patel, H., **Hsu, Y.T.\***, Chang, S.K. “Analysis of the demand-side characteristics of Mumbai Dabbawala service.” 13th International Conference of the Eastern Asia Society for Transportation Studies (Colombo, Sri Lanka, Sep. 2019).
17. Hsu, C.W., **Hsu, Y.T.\*** “Exploring the propagation pattern of traffic congestion through analyzing and visualizing vehicle detector data.” 15th World Conference on Transport Research (Mumbai, India, May 2019).
18. Ni, Y.C., Lo, H.H., **Hsu, Y.T.\***, Huang, H.J., Chang, T.H. “Design of passive transit signal priority control for bus rapid transit based on a simulation-based optimization model.” 15th World Conference on Transport Research (Mumbai, India, May 2019).
19. Chen, Y.J., **Hsu, Y.T.\***, Miralinaghi, M. “Optimizing resilience of retorting disrupted interdependent infrastructure systems.” 98th Transportation Research Board (Washington, DC, Jan. 2019).
20. Tai, C.Y., Chen, W.H., **Hsu, Y.T.\*** “Using dynamic vehicle routing model to dispatch emergency response teams for freeway incidents.” 98th Transportation Research Board (Washington, DC, Jan. 2019).
21. Miralinaghi, M.\*, Seilabi, S.E., Chen, S., **Hsu, Y.T.**, Labi, S. “Optimizing the selection and scheduling of multi-class projects.” 98th Transportation Research Board (Washington, DC, Jan. 2019).
22. Xu, Z.X., **Hsu, Y.T.\***, Chen, A.Y. “Signal control strategies to coordinate surface-street and freeway traffic: a neural network approach.” 31st KKHTCNN Symposium on Civil Engineering (Kyoto, Japan, Nov. 2018).
23. Ni, Y.C., **Hsu, Y.T.\***, Huang, H.H. “Design of passive signal priority strategies for transit systems with type B right-of-way on an urban arterial.” 31st KKHTCNN Symposium on Civil

- Engineering (Kyoto, Japan, Nov. 2018).
24. Chen, Y.J., **Hsu, Y.T.\*** “Scheduling restoration of disrupted interdependent infrastructure systems: the perspective of resilience optimization.” 31st KKHTCNN Symposium on Civil Engineering (Kyoto, Japan, Nov. 2018).
  25. Tseng, M.Y., **Hsu, Y.T.** “Exploring cyclist behavior at signalized crossing: perspective of cyclist-pedestrian conflict analysis.” 31th International Co-operation on Theories and Concepts in Traffic Safety Conference (Porto, Portugal, Oct. 2018).
  26. Wang, P.C., **Hsu, Y.T.** “Analysis of waiting time perception of bus passengers provided with mobile service.” 97th Transportation Research Board (Washington, DC, Jan. 2018).
  27. Hsu, C.W., **Hsu, Y.T.\*** “Exploring the cascading pattern of traffic congestion through visualizing vehicle detector data.” 30th KKHTCNN Symposium on Civil Engineering (Taipei, Taiwan, Nov. 2017).
  28. Chien, S.T., **Hsu, Y.T.\*** “Research on interactions between high-speed rail facilities and regional development.” 12th International Conference of Eastern Asia Society for Transportation Studies (Ho Chi Minh City and Binh Duong City, Vietnam, Sep. 2017).
  29. Chen, H.Y., **Hsu, Y.T.\***, “Formulating the Minimum Network Clearance Time for Evacuation Problems.” 2017 International Workshop on Computing in Civil Engineering (Seattle, U.S.A., Jun. 2017).
  30. Dai, Z.Y., Kang, Z.F., Li, N., Yang, L.K., **Hsu, Y.T.\***, “Partition problem for optimizing the deployment of incident response.” 2017 International Workshop on Computing in Civil Engineering (Seattle, U.S.A., Jun. 2017).
  31. Wu, Y.H., Kang, L., Wang, P.C., **Hsu, Y.T.\*** “Exploratory multivariate analysis of bikesharing system use: trip characteristics and effect of pricing scheme change.” 96th Annual Meeting of the Transportation Research Board (Washington D.C., U.S.A., Jan. 2017).
  32. Huang, H.H., **Hsu, Y.T.\***, Miralinaghi, M. “A location problem of two-level disaster relief facilities for vulnerable networks.” 96th Annual Meeting of the Transportation Research Board (Washington D.C., U.S.A., Jan. 2017).
  33. Miralinaghi, M.\*, Lou, Y., Keskin, B.B., **Hsu, Y.T.**, Shabanpour, R. “Refueling station location problem with traffic deviation considering route choice and demand uncertainty.” 96th Annual Meeting of the Transportation Research Board (Washington D.C., U.S.A., Jan. 2017).

#### b. 國內會議論文

1. 王思涵\*、洪晨瑋、賴建名、毛美能、**許聿廷** 「以旅客為導向之捷運轉乘舒適空間資訊技術建立與人流分析」第 26 屆電子計算機於土木水利工程應用研討會 (桃園，臺灣，2021 年 9 月)。
2. 陳璽煌\*、洪詮盛、王晉元、**許聿廷**、陳其華、陳志岳 「運用 OBD-II 實作車輛駕駛工作時間和出勤紀錄系統之研究」第 25 屆臺灣網際網路研討會 (高雄，臺灣，2019 年 9 月)。
3. 陳璽煌\*、洪詮盛、王晉元、**許聿廷**、陳其華、陳志岳 「使用 OBD 車上診斷系統與 TensorFlow DNN 分類器於油電混合車之動力電池故障預警系統實作」第 9 屆網路智能與應用研討會 (雲林，臺灣，2019 年 10 月)。[大會佳作論文獎]
4. 許添本\*、**許聿廷**、蕭唯倫、何婉菁、李芊 「自行車肇事特性分析與車聯網防撞策略之

研究」第 32 屆中華運輸學會年會暨國際論文研討會 (臺北，臺灣，2017 年 12 月)。

### (C) 技術報告

1. 許聿廷、薛宏毅、劉瑾易 (2021) 智慧型城市規劃模擬平台之設計與應用－基於多主體模擬平台預測社經變化與技術創新趨勢下之都市運輸系統發展，科技部/109-2621-M-002-014-。
2. 許聿廷、蕭鈞謙 (2020) 興建學生宿舍交通衝擊評估計畫，臺灣大學總務處。
3. 蘇育民、陳介豪、許聿廷、鄭鈞耀、周琪雅 (2020) 探討道路交通標線之防滑特性，交通部運輸研究所/MOTC-IOT-109-SDB010。
4. 水敬心、許聿廷、張瑞巖 (2020) YouBike 2.0 於臺灣大學校總區試辦期間營運績效 評估與需求分析，臺灣大學總務處。
5. 許聿廷、毛美能、倪英瑑 (2020) 臺北都會區大眾捷運系統萬大—中和—樹林線 (第二期) 委託技術服務 DQ125 設計標：車站人流分析工作，中興工程顧問公司/0080B-06/108-S-A71。
6. 廖俊雄、沈宗緯、許聿廷、謝宛彧、周琪雅 (2019) 中華郵政物流園區車流分析與動線規劃案，中華郵政。
7. 許聿廷、李文宇 (2019) 軌道運輸系統運量預測方法：考量運輸系統與土地利用狀態之互動關係，科技部/107-2119-M-002-044-。
8. 許聿廷、陳薇亘、楊璣凱、李弘亦 (2019) 107-108 年精進國道事件處理效率委外研究，國道高速公路局北區養護分局/107B04P006。
9. 譚義績、許聿廷、柯凱元、陳柏華、林永樂、賴洺嘉、溫欣儀、陳譽仁 (2018) 核能電廠緊急應變計畫區民眾疏散方案規劃與模擬分析，臺灣電力公司。
10. 許聿廷、陳譽仁 (2018) 大規模路網疏散時間估算與疏散路線規劃之研究，科技部/107-NU-E-002-002-NU。
11. 許聿廷、曾慶華、張秉鈞 (2017) 大型活動輻射事件下物資佈署與群眾安置、疏散之規劃問題，科技部/106-NU-E-002-004-NU。
12. 許聿廷、朱致遠、游景雲、陳柏華、卡艾瑋、陳譽仁、康家瑜 (2017) 潰壩分析暨下游緊急應變計畫：區域疏散、群眾安置與關鍵設施強化之整合，科技部/106-2119-M-002-018-。
13. 許聿廷、戴至佑、楊璣凱、陳薇亘 (2017) 精進國道事件處理效率委外研究，國道高速公路局北區養護分局/105B03P022。