

許聿廷 助理教授 Yu-Ting Hsu

Assistant 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 Paper) (*: 通訊作者)

a. SCI/SSCI 期刊論文

- (1) 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.
- (2) 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.
- (3) 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.
- (4) Miralinaghi, M.* , Lou, Y., **Hsu, Y.T.**, Shabanpour, R., Shafahi, Y. (2016) “Multiclass fuzzy user equilibrium with endogenous membership functions and risk-taking behaviors.” *Journal of Advanced Transportation*, 50(8), pp. 1716–1734.
- (5) **Hsu, Y.T.***, Kang, L., Wu, Y.H. (2016) “User behavior of bikesharing systems under demand-supply imbalance.” *Transportation Research Record*, 2587, pp. 117–124.
- (6) **Hsu, Y.T.***, Peeta, S. (2016) “Online calibration of an integrated framework for information-based evacuation operations.” *Journal of Advanced Transportation*, 50(7), pp. 1531–1553.
- (7) **Hsu, Y.T.**, Peeta, S.* (2015) “Clearance time estimation for incorporating evacuation risk in routing strategies for evacuation operations.” *Networks and Spatial Economics* 15(3), pp. 743–764.

b. 非屬 SCI/SSCI 之 EI 或 TSSCI 期刊論文

- (1) **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.
- (3) Chang, T.H., Chen, A.Y., **Hsu, Y.T.***, Yang, C.L. (2016) “Freeway travel time prediction based on seamless spatio-temporal data fusion: case study of the freeway in Taiwan.” *Transportation Research Procedia* 17, pp.452–459.

(B) 研討會論文(Conference Paper) (*: 通訊作者)

a. 國外會議論文

- (1) 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).
- (2) 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. 2019).
- (3) 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).

- (4) 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).
- (5) 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).
- (6) Li, H.Y., **Hsu, Y.T.*** “Stochastic dynamic dispatch model for freeway incident response.” 32nd KKHTCNN Symposium on Civil Engineering (Daejeon, Korea, Oct. 2019).
- (7) 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).
- (8) 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).
- (9) 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).
- (10) 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).
- (11) 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).
- (12) 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).
- (13) 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).

- (14) Chen, Y.J., **Hsu, Y.T.***, Miralinaghi, M. “Optimizing resilience of retorting disrupted interdependent infrastructure systems.” 98th Transportation Research Board (Washington, DC, Jan. 2019).
- (15) 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).
- (16) 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).
- (17) 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).
- (18) 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).
- (19) 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).
- (20) 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).
- (21) 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).
- (22) 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).
- (23) 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).

- (24) 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).
- (25) 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).
- (26) 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).
- (27) 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).
- (28) 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).
- (29) Chen, J.S., **Hsu, Y.T.*** “Dynamic bike redistribution strategies considering on-site demand patterns for bike sharing systems.” 14th World Congress on Transport Research (Shanghai, China, Jul. 2016).
- (30) Huang, H.H., **Hsu, Y.T.*** “Locations of two-level disaster relief facilities for vulnerable networks: case study of Nantou, Taiwan.” 14th World Congress on Transport Research (Shanghai, China, Jul. 2016).
- (31) Liu, M.H., **Hsu, Y.T.*** “Airport capacity analysis based on integrated assignments considering both gate and runway usage.” 20th Air Transport Research Society World Conference (Rhodes, Greece, Jun. 2016).
- (32) Chien, S.T., **Hsu, Y.T.*** “Forecasting ridership of railway systems by factoring interactions between railway facilities and land-use patterns.” 11th World Congress on Railway Research (Milan, Italy, May 2016).
- (33) **Hsu, Y.T.***, Kang, L., Wu, Y.H. “User behavior of bike sharing systems under demand-supply imbalance.” 95th Annual Meeting of the Transportation Research Board (Washington D.C., U.S.A., Jan. 2016). Accepted to be published in Transportation Research Record No. 2587.

- (34) Song, D.Y., Peeta, S.*, **Hsu, Y.T.** “Psychological effects of real-time travel information on route choice decision-making processes in multi-tasking travel environments.” 14th International Conference on Travel Behaviour Research (Winsor, UK, Jul. 2015).
- (35) **Hsu, Y.T.***, Lin, W.R., Lai, Y.C. R., Kao, T.C. “Forecasting high speed rail ridership using aggregate data: A case revisit of high speed rail in Taiwan.” 94th Annual Meeting of the Transportation Research Board (Washington D.C., U.S.A., Jan. 2015).

b.國內會議論文

- (1) 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 臺灣網際網路研討會 (高雄, 臺灣, 2019 年 9 月)。
- (2) 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」第九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]
- (3) 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、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-。
- (2) 許聿廷、陳薇亘、楊璫凱、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。
- (3) 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。
- (4) 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。
- (5) 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。

- (6) 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-。
- (7) 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。
- (8) 許聿廷、陳靖昇、吳宜萱 (2016) 考量使用者行為基礎之公共自行車系統動態調度作業，科技部/104-2119-M-002-033。