# 國立臺灣大學工學院土木工程學系

# Department of Civil Engineering

# National Taiwan University

## 教師研究概況及成果

## Research Summary

## (2015-2019)

2020 年 2 月

# 土木工程學系 (Department of Civil Engineering)

(本資料由教師本人提供彙集而成)

## 大地工程組 (Geotechnical Engineering)



## 結構工程組 (Structural Engineering)

## 交通工程組　(Transportation Engineering)



## 營建工程與管理組 (Construction Engineering and Management)



## 電腦輔助工程組　(Computer-Aided Engineering)



## 測量及資訊空間組　(Surveying and Geospatial Engineering)

# 林美聆　教授 MEEI-LING LIN

**Professor**

學歷/ 美國德州大學奧斯汀校區博士

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專長/邊坡穩定、地盤沉陷、土石流、土壤動態行為與特性

Soil Dynamics, Slope Stability, Ground Settlement Analysis, Debris Flow

## 期刊論文(Journal Paper)

1.林美聆，陳德偉，陳彥澄（2019年09月）。大規模崩塌判釋圈繪方法之建立及驗證。**地工技術**，第**161**期，第53-62頁。本人為第一作者。

2.林美聆，莊漢鑫，陳永昇（2015年1月）。莫拉克颱風土石流災害引致土砂運移與河道變遷研究。**工程環境會刊**，第三十四期, 1～26.。本人為第一作者、通訊作者。

## 研討會論文(Conference Paper)

英文部份

1. Meei-Ling Lin, and Ting-Kuo Chiang (2019, Oct). Long term effects of landslides induced by catastrophic events. The 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, Invited lecture, IS-07, Taipei, Taiwan. 本人為第一作者、通訊作者.
2. Meei Ling Lin, and Te Wei Chen (2019, Feb). Effects of Extreme Rainfall on Debris Transportation by Debris Flow in Taiwan. Symposium Climate Change and Natural Hazards: coping with and managing hazards in the context of a changing climate, 義大利. 本人為第一作者.
3. Lin, M.L.*, and Lan, S.T. (2018, Oct). Modelling of the Topographic Effects on the Seismic Responses of Slopes. The Eighth Japan - Taiwan Joint Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, Kyoto, Japan. 本人為第一作者、通訊作者.
4. Meei-Ling, Lin* ; Kuo-Lung, Wang ; Ruey-Juin, Rau (2018, Oct). Monitoring and Evolution Analysis of Large-scale Landslides in the Lushan Area Using Multi-scale Remote Sensing Techniques, invited speaker. International Workshop on Disaster Prevention and Mitigation Technology for Large-scale Landslide, Taipei,Taiwan. MOST 105-2625-M-002-015. 本人為第一作者、通訊作者.
5. Meei-Ling, Lin; Kuo-Lung, Wang; Ruey-Juin, Rau, (2018, Oct). Monitoring and Evolution Analysis of Largescale Landslides in the Lushan Area Using Multiscale Remote Sensing

Techniques. International Conference on Hazard Mitigation Technology for Large-scale Landslides, Taipei, Taiwan. 本人為第一作者、通訊作者. Invited lecture.

6. Lin, M.L.* and Tien, Y.S. (2018, Aug). Effects of Parameter Uncertainty on Slope Stability- A Case Study of the Mt. Shihgonge Landslide. The 2nd KGSCTGS and TC305 Geotechnical Seminar, Kazakhstan . 本人為第一作者、通訊作者.
7. Kuo-Lung Wang, Jun-Tin Lin, Yi-Hsuan Lee, Jheng-Ru Lai, Li-Wen Chen, Tsung-Wen Chen, Chin-Wei Wu, Meei-Ling Lin, and Hao-Nien Chen (2018, Apr). Rainfall induced landslide investigation and back analysis using UAV results and GPS monitoring results. European Geosciences UnionGeneral Assembly 2018, viena, Austria. MOST 106-2625-M-002-014.
8. Meei-Ling Lin, Yi-Ting Wu, Kuo-Lung Wang, and Yo-Ming Hsieh (2018, Apr). Monitoring of the Deep-seated Landslide using MEMS- a Case Study of Lantai Landslide, Taiwan. European Geosciences UnionGeneral Assembly 2018, Viena, Austria. MOST 106-2119-M-006-009. 本人為第一作者、通訊作者. 9. Te-Wei Chen, Meei-Ling Lin, and Yen-Chen Chen (2018, Apr). Discriminant analysis of shallow landslides potential in the debris flow basins in Taiwan. European Geosciences Union.
9. Meei-Ling Lin*, and Wun-Bin Yan (2017, Nov). “Construction of Large-scale Landslide Potential Analysis Model”, Keynote Lecture. International Conference on Disaster Prevention and Mitigation Technology for Large-scale Landslides,, Taiwan. MOST 105-2625-M-002-015. 本人為第一作者、通訊作者.
10. Meei Ling Lin*, Te Wei Chen, Yong Sheng Chen, and Han Sin Jhuang (2017, Sep). Sediment transportation caused by deep-seated landslide in a debris flow river basin- a case study of Typhoon Morakot. Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering. 本人 為第一作者、通訊作者.
11. Meei Ling Lin*, Te Wei Chen, Yong Sheng Chen, and Han Sin, Jhuang (2017, Sep). “Sediment transportation caused by deep-seated landslide in a debris flow river basin- a case study of Typhoon Morakot". Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering, Korea. 本人為第一作者、通訊作者.
12. Meei-Ling Lin ,Te-Wei Chen and Kuo-Chiang Hsia (2017, Sep). Evolution and Stability Analysis of a Deep-Seated Landslide in Lantai Area, Taiwan. 5th International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation (5th GEDMAR), Taiwan. MOST 106-2119-M-006-009. 本人為第一作者、通訊作者.
13. Kuo-Lung Wang, Yo-Ming Hsieh, Meei-Ling Lin, Jun-Tin Lin, and Yi-Hsuan Lee, (2017, Jun). “Observation and Mapping of Complex Landslides Using Field Investigation and Remote Sensed Data". 4th World Landslide Forum, Slovenia. MOST 105-2625-M-002-015.

14.Te-Wei Chen, Meei-Ling Lin.*, Kuo-Chiang Hsia (2016, Sep). Identification of Deep-Seated Landslide - a Case Study of Lantai Area in Taiwan. 7th Japan- Taiwan Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, 台灣.本人為通訊作者.

15.Meei-Ling Lin, Ching-Ya Huang, Tseng-Chih Kao (2016, Jun). Threshold conditions and run-out displacements of the landslides induced by the Chi-Chi earthquake, Taiwan. 12th International Symposium on Landslides , 義大利. 本人為第一作者、通訊作者.

16. Meei Ling Lin, Te Wei Chen, Yong Sheng Chen, and Han Sin Jhuang (2016, Apr). Sediment Transportation Induced by Deep-Seated Landslides in a Debris Flow Basin in Taiwan. EGU General Assembly 2016, 維也納. 本人為第一作 者、通訊作者.

17. Meei-Ling Lin and Li-Sheng Chou (2016, Apr). Hydrological Effects on Failure Mechanism of the Shiaolin Landslide, Taiwan Induced by Typhoon Morakot. EGU General Assembly 2016, 維也納. 本人為第一作者、通訊作者.

18. Meei-Ling Lin (2015, Nov). "Characteristics and long term effects of the landslides induced by earthquake". The 4th Italian Workshop on Landslides, Naples, Italy. 本人為第一作者、通訊作者. opening Keynote Lecture.

19. Meei-Ling Lin, Kuo-Lung Wang and Te-Wei Chen (2015, Nov). "Detection and Monitoring of Deep-seated Landslides Using Multi-scale Remote Sensing Techniques. One Day IEM-CIE-HKIE Tripartite Seminar, Kota Kinabalu, Malaysia. 本人為第一作者、通訊作者. Invited speaker and leader of Taiwan delegates.

20. Meei-Ling LIN and Sheng-Chi LIN, (2015, Jun). "Run-Out Simulation of Debris Flow Caused by Typhoon Morakot in Taiwan, 2009 Using Terrain Scanning Method". 6th International Conference on Debris-Flow Hazards Mitigation;Mechanics, Prediction and Assessment DFHM6 , Tsukuba, Japan. 本人為第一作者.

21. Meei-Ling LIN, Tien-Chien CHEN, Yu-Chung LIN, Ter-Wei CHEN, and Hsiao- Yu HUANG (2015, Jun). " Estimation of Debris Flow Run-out Distance Using Statistical Analysis -A Study of the Debris Flow Caused by Typhoon Morakot, 2009". 6th International Conference on Debris-Flow Hazards Mitigation; Mechanics, Prediction and Assessment DFHM6 , Tsukuba, Japan. 本人為第一作者、通訊作者.

中文部份

1. 林美聆、陳德偉（2019年08月）。利用衛星影像進行崩塌長期監測－以廬山及蘭台大規模崩塌為例。第38屆測量及空間資訊研討會，桃園，台灣。本人為第一作者。

2. 林美聆（2017年08月）。"極端降雨引致坡地崩塌對流域土砂災害之影響"，專題演講。

2017海峽兩岸大規模崩滑災害論壇，中國四川成都。本人為第一作者、通訊作者。

3. 林美聆，陳德偉，夏國強（2017年08月）。蘭台地區大規模崩塌潛勢區判釋及穩定分析。第十七屆大地工程學術研究討論會。本人為第一作者、通訊作者。

4. 林美聆，嚴文彬（2017年08月）。”邊坡單元劃設與大規模崩塌潛勢分析”。第十七屆大地工程學術研究討論會。，台灣宜蘭。科技部：105-2625-M-002-015。本人為第一作者、通訊作者。

5. 林美聆，陳德偉，王建方（2015年09月）。” 應用坡單元及概似率分析大規模崩塌潛勢”，。第十六屆大地工程學術研究討論會，高雄。本人為第一作者、通訊作者。優良論文獎。

6. 林美聆（2015年08月）。”臺灣土石流與崩塌災害潛勢及預警”。第三屆兩岸科技論壇「防災、減災與環境保護」議題， 西安。本人為第一作者、通訊作者。邀請講員。

## 專書及專章

1.Lin, M.L., Chen, T.W., and Hsia, K.C., 2017, “Evolution and stability analysis of a deep-seated landslide in Lantai Area, Taiwan”, Geotechnical Hazard Mitigations, Ed. Lin,M.L., pp. 391-402. ISBN: 978-986-437-141-9

2.Lin, M.L., Lin, S.C., And Lin, Y.C. , 2017, “Review of landslide occurrences and climate change in Taiwan”, Slope safety preparedness for impact of climate change, Ed. JTC-1, 409-435, ISBN: 978-1-138-03230-9

3.林美聆，2017, “氣候變遷下之天然災害潛勢與國土規劃”，氣候變遷下的國家發展藍圖，主編：林俊全，周桂田，國立台灣大學全球變遷研究中心，113-128，ISBN: 978-986-05-0593-1.

4.林美聆，2016，土石流災害發生潛勢與危害度評估，土石流系列工程小叢書，主編：林美聆，中興工程科技研究發展基金會，62p. ISBN: 978-986-7142-69-6.

5.林美聆（2016年）。**土石流災害發生潛勢與危害度評估**（ISBN：978-986-7142-69-6）（第一版）。台北台灣：中興工程科技研究發展基金會。

## 專書論文

1.Meei-Ling, Lin, Sheng-Chi, Lin, and Yu-Ching, Lin, , , Ed. , CRC Press, 2017,p.409. Review of landslide occurrence and climate change in Taiwan. *Slope*

*Safety Preparedness for Impact of Climate Change*

(ISBN: 978-1-138-03230-9).

EH Leiden, TheNetherlands: CRC Press/Balkema. 2017: pp.409-435.

2.林美聆（2017年01月）。氣候變遷下之天然災害潛勢與國土規劃。氣候變遷下的國家發展藍圖（ISBN：978-986-05-0593-1）（115-130）。台北台灣：國立臺灣大學全球變遷中心。

## 技術報告

1.王國隆，林美聆，倪春發，陳建志，陳柔妃，陳宏宇，陳昭維，郭志禹，許雅儒，張國楨，黃信樺，謝佑明，林柏宏，李苡宣（2020年01月）。蘭台大規模崩塌潛勢示範區觀測科技整合研究。行政院農業委員會水土保持局研究委託研究計畫報告。

2.林美聆，劉德礎（2019年12月）。建立沉積岩地質區帶廣域性淺層崩塌潛勢模式。行政院農業委員會水土保持局研究創新研究計畫報告。

3.林美聆，王國隆，陳彥澄，李苡宣（2018年12月）。淺層崩塌影響範圍調查劃設及聚落致災評估方法之研究。農委會：水土保持局。

4.王國隆，林美聆，許雅儒，郭力維，郭志禹，陳建志，陳柔妃，陳宏宇，陳昭維，張國楨，黃信樺，謝佑明，林柏宏，李苡宣（2018年12月）。蘭台大規模崩塌潛勢示範區觀測科技整合研究。行政院農業委員會水土保持局研究委託研究計畫報告。

5.林美聆，陳天健，王國隆，陳彥澄，蘇意筑，李苡宣（2017年12月）。淺層崩塌防災管理規劃與研究。行政院農業委員會水土保持局研究委託研究計畫報告。農委會：SWCB-106-199。

6.林美聆，饒瑞鈞，王國隆（2017年07月）。精緻化坡地大規模崩塌調查、監測技術及潛勢與影響分析研究-以荖濃溪流域及廬山地區板岩帶為例-總計畫暨子計畫：荖濃溪流域大規模崩塌創新潛勢分析及影響評估之研究(III)。

科技部計畫報告。科技部：105-2625-M-002-015。

7.林美聆（2016年12月）。高屏溪流域研究區坡地崩塌與致災降雨關聯性分析。行政院農業委員會水土保持局創新研輳?　　究計畫(編號: SWCB-105-123)。

8.林美聆，饒瑞鈞，王國隆（2016年07月）。精緻化坡地大規模崩塌調查、監測技術及潛勢與影響分析研究-以荖濃溪流域及廬山地區板岩帶為例-總計畫暨子計畫：荖濃溪流域大規模崩塌創新潛勢分析及影響評估之研究(II)。

科技部計畫報告。科技部：104-2625-M-002-026。

# 鄭富書　教授 Fu-Shu Jeng

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Rock Mechanics, Numerical Analysis, Engineering Geology

## 期刊論文(Journal Paper)

註：加 * 者，為通訊作者。

A-1 **Jeng,F.S.**, M. C. Weng*, F.H. Yeh, Y.H. Yang, T.H. Huang (2019). A Constitutive model of sandstone considering the post peak behavior. *Journal of Mechanics 35(1), 13-25*. [NSC 101-2628-E-390-001-MY2 and MOST 103-2625-M-390-004]( 2017-02,SCI/EI)

A-2 Zhan, S.S., T.T. Wang*, **F.S. Jeng** (2018). Fracture characterization usinghydrogeological approaches and measures taken for groundwater inrush mitigation in shaft excavation. *Tunnelling and Underground Space Technology*, 82, 554-567.( 2017-08,SCI/EI)

A-3 **Jeng, F.S.**, K.P. uang, K.J. Chang* (2018). Analytical Solution of Folding Behaviors of Multi-layer Viscous Strata, *Terr. Atmos. Ocean. Sci.* 29(4):355-370. [NSC89-2211-E002-150, NSC89-2211-E002-152, SC98-2116-M-002-014, and NSC103-2116-M-002-007]( 2017-07,SCI)

A-4 Weng*, M.C., **F.S. Jeng**, B.L. Chu, Y.W. Jou, C.Y. Liao (2015). Deformation analysis of excavation in gravelly formation using the anisotropic degradation model. *Journal of the Chinese Institute of Engineers* 38(8), 959-967.[NSC 98-2221-E-390-028-MY2]( 2015-12,SCI/EI)

## B. 研討會論文(Conference Paper)

B-1 Tsao, M.C., W.L. Chen, **F.S. Jeng**, T.T. Wang (2019): Influence of engineering geological characteristics on highway maintenance: Example of Dasha River section of Central Cross-Island Highway. Proceedings of the 5th ISRM Young Scholars' Symposium on Rock Mechanics and International Symposium on Rock Engineering for Innovative Future (YSRM 2019& REIF 2019), December 1-4, Okinawa, Japan. P-30.(2019-12)

B-2 劉曉樺、王泰典、**鄭富書**、黃燦輝(2017)：圍岩應力狀態及節理面剪脹效應對岩栓支撐功效的影響，*第十六屆海峽兩岸隧道與地下工程學術與技術研討會論文集*，8月19-20日，貴州貴陽，168-175。(2017-08)

B-3 李紫彤、王泰典、翁祖炘、**鄭富書**(2016)：岩石隧道依時變形案例模擬及圍岩變位特性探討，*第十五屆海峽兩岸隧道與地下工程學術與技術研討會論文集*，8月12-14日，湖南長沙，231-238。(2016-08)

B-4 楊逸賢、翁孟嘉、**鄭富書** (2015) *砂岩之峰後力學特性研究，第十六屆大地工程研討會論文集*，國立高雄第一科技大學，高雄。(201-01)

# 林銘郎　教授 Ming-Lang Lin

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專長/工程地質學、岩石力學、邊坡穩定

Engineering Geology, Rock Mechanics, Slope Stability

## 期刊論文 (Journal Paper)

1. Lin, Hsi-Hung, **Lin, Ming-Lang**, Lu, Jia-Hao, Chi, Chung-Chi, Fei, Li-Yuan (2019) Deep-seated gravitational slope deformation in Lushan, Taiwan: transformation from cleavage-controlled to weakened rockmass-controlled deformation. Engineering Geology, https://doi.org/10.1016/j.enggeo.2019.105387 (SCI)
2. Weng, Meng-Chia, Lin, Ming-Lang, Lo, Chia-Ming, Lin, Hsi-Hung, Lin, Cheng-Han, Lu, Jia-Hao , Tsai, Shang-Jyun (2019) Evaluating failure mechanisms of dip slope using a multiscale investigation and discrete element modelling. Engineering Geology, https://doi.org/10.1016/j.enggeo.2019.105303 (SCI)
3. Lin, Cheng-Han, Hung, Ching, Weng, Meng-Chia, **Lin, Ming-Lang**, Uzuoka,Ryosuke (2019) Failure mechanism of a mudstone slope embedded with steep anti-dip layered sandstones: case of the 2016 Yanchao catastrophic landslide in Taiwan. Landslides, https://doi.org/10.1007/s1034 (SCI)Li, Chien-Hung, Lin, Ming-Lang, Huang, Wen-Chao (2019) Interaction between pile groups and thrust faults in a physical sandbox and numerical analysis. Engineering Geology, 252, 65-77. (SCI)
4. Li, Chien-Hung, Lin, Ming-Lang, Huang, Wen-Chao (2019) Interaction between pile groups and thrust faults in a physical sandbox and numerical analysis. Engineering Geology, 252, 65-77. (SCI)
5. Lin, Cheng-Han, **Lin, Ming-Lang**, Peng, Hou-Ren, Lin, Hsi-Hung (2018) Framework for susceptibility analysis of layered rock slopes considering the dimensions of the mapping units and geological data resolution at various map scales. Engineering Geology, 246 (2018), 310-325. (SCI)
6. Cheng Hsueh Weng , **Ming Lang Lin** , Chia Ming Lo, His Hung Lin (2018) The influence of groundwater on the sliding and deposition behaviors of cataclinal slopes. Water 10 (9), 1179 (SCI)

7. Chia-Ming Lo, Meng-Chia Weng, Ming-Lang Lin, Shun-Min Lee & Kuo-Chen Lee (2018) Landscape evolution characteristics of large-scale erosion and landslides at the Putanpunas Stream, Taiwan. Geomatics, Natural Hazards and Risk, 9:1, 175-195, DOI:10.1080/19475705.2017.1414079 (SCI)
8. 詹佩臻、謝沛宸、陸安、柳鈞元、林劭儒、李健宏、林銘郎 (2018) 0206 花蓮地震之米崙斷層地表變形破裂與人工設施互制關係. 地工技術，156 期，79-90 頁
9. 李健宏、詹佩臻、吳亮均、林銘郎 (2018) 跨斷層國道三號田寮 3 號橋與中寮隧道北口段變形機制，中國土木水利工程學刊，第 30 卷，1 期，001-010 頁(EI)。
10. Yeh, CH , **Lin, ML**, Chan, YC , Chang, KJ , Hsieh, YC (2017) Dip-slope mapping of sedimentary terrain using polygon auto-tracing and airborne LiDAR topographic data. Engineering Geology, 222(2017), 236-249. (SCI)
11. 謝沛宸、陸安、詹佩臻、林銘郎 (2017) 為什麼土木系學生應該與地質系學生一起進行野外觀察？，地質，36(2)期，第 60-64 頁。
12. Lo, CM, Huang, WK, and **Lin, ML** (2016) Earthquake-induced deep-seated landslide and landscape evolution process at Hungtsaiping, Nantou County, Taiwan, Environmental Earth Sciences 75 (8), 1-16. (SCI)
13. Lo CM, Lee CF, **Lin ML** (2016) Consideration of the Maximum Impact Force Design for the Rock-Shed Slab. Journal of Geography & Natural Disasters, 6: 169. doi:10.4172/2167-0587.1000169 (SCI
14. Huang, W.-J., W.-S. Chen, Y.-H. Lee, C.-C. Yang, **M.-L. Lin**, C.-S. Chiang, J.-C. Lee, and S.-T. Lu (2016) Insights from heterogeneous structures of the 1999 $M_w$ 7.6 Chi-Chi earthquake thrust termination in and near Chushan excavation site, Central Taiwan, J. Geophys. Res. Solid Earth, 121, 339–364, doi:10.1002/2015JB012174. (SCI)
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Laboratory Soil Testing; Soil Liquefaction; Constitutive Modeling

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## (一) 期刊論文(Journal Paper) (✉表通訊作者)

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## (三) 研討會論文(Conference Paper)

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Ground Motion Characterization and Site Response Analysis

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Steel Structure, Structural Dynamics, Earthquake Resistance Design

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31. 周中哲，鍾秉庭，粘評，陳威霖，劉郁芳，柯鎮洋，王志誠，陳景誠(2019)「板橋鋼筋混凝土高層建築鋼構件補強效益:實驗及 ETABS 非線性動力分析」，2019 高層建築發展及補強研討會，臺北市
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36. 周中哲(2018)「鋼造建築構架靜態載重與震動台試驗：自復位斜撐與挫屈束制斜撐對構架抗震影響」，第六屆土木工程結構試驗與檢測技術暨結構實驗教學研討會，8 月 2~4 日，北京，中國**(Invited Speaker**，in Chinese**)**
37. 周中哲，凌郁婷，曾冠霖，鍾秉庭(2017) 「新竹科學園區鋼構造廠房微振動監測及抗震能力評估」，第七屆全國結構抗振控制與健康監測學術會議，11 月 10~12 日，武漢市**(Invited Speaker**，in Chinese**)**

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43. 周中哲，鍾秉庭，凌郁婷 (2016) “Gold Medal”. Taiwan International Invention and Design Fair. 7 月 5~8 日，高雄，台灣(in Chinese)

44. 周中哲，李中生，陳威霖，吳愷毅(2016)「玻璃纖維包覆螺紋管圍束無箍筋之圓形橋柱剪力設計與試驗驗證」，第十三屆結構工程研討會暨第三屆地震工程研討會，8 月 24~26 日，桃園，台灣(in Chinese)

45. 周中哲，蕭佳宏，陳澤邦，鍾秉庭，Pham D.H. (2016)「兩層樓雙核心自復位斜撐及夾型挫屈束制斜撐實尺寸鋼構架耐震試驗」，第十三屆結構工程研討會暨第三屆地震工程研討會，8 月 24~26 日，桃園，台灣(in Chinese)

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21. 周中哲、凌郁婷、鍾秉庭、Dinh-Hai Pham (2016)「應用高性能鋼材之耐震構造技術研發－子計畫:應用高性能鋼材之雙核心自復位斜撐動態耐震試驗及分析(II)」，科技部計畫編號:**MOST 104-2625-M-002-028** (in Chinese)
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## 期刊論文(Journal Publications)

1.Ou, Y.C., Yin, S.Y.L., Liu, Y.Q., and Wang, J.C. (2019). "Cyclic behavior of a reinforced concrete column with unstressed seven-wire steel strands as longitudinal reinforcement." *ACI Special Publication* (In Press)

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13.Han, Q., Zhou, Y., Ou, Y.C., and Du, X. (2017). "Seismic behavior of reinforced concrete sacrificial exterior shear keys of highway bridges." *Engineering Structures*, 139, 59-70. (SCI)

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## 研究會討論(Conference Publications)

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2.Ou, Y.C. (2019). " Cyclic Behavior of Concrete Columns with Unstressed Grade 1860 Seven-Wire Strand as Longitudinal Reinforcement." Proceedings of 2019 Taiwan-Japan Workshop on Structural and Bridge Engineering, Kyoto, Japan, April 2-April 3.

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4.歐昱辰, Nguyen V.B.N. (2018). "高強度鋼筋混凝土柱剪力強度試驗研究." 2018 國家地震工程研究中心實驗成果研討會, 7 月 16 日, 台北市, 臺灣.

5.歐昱辰 (2018). "高強度鋼筋混凝土結構." 2018 國立臺灣大學工學院地震工程研究中心 40 週年慶特刊, 6 月 14 日, 台北市, 臺灣.

6.Ou, Y.C. (2018). "Mitigation of residual displacements of reinforced concrete bridge columns by partially unbonded nonprestressed prestressing steel strands." Proceedings of the 4th Workshop with NCREE and Kyushu University, Taipei, Taiwan, May 18.

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8.Ou, Y.C., and Truong, A.N. (2017). "Cyclic Behavior of Retrofitted L- and T-Shaped Reinforced Concrete Columns." The Nineteenth Taiwan-Japan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Seoul, Korea, September 8-9.

9.Ou, Y.C. (2017). "Hysteretic damping of self-centering precast concrete segmental bridge columns." Proceedings of the 3rd Workshop with NCREE and Kyushu University, Fukuoka, Japan, April 4.

10.Ou, Y.C. (2017). "Shear and flexural strength predictions of prestressed concrete bridge girders with self-compacting concrete." Proceedings of 2017 Taiwan-Japan Workshop on Structural and Bridge Engineering, Kyoto, Japan, March 31-April 2.

11.Ou, Y.C., Pratiwi, A.Y., Bu, Z.Y., Song, J.W., and Lee, G.C. (2017). “Equivalent viscous damping for self-centering precast concrete segmental bridge columns.” Proceedings of 16th World Conference on Earthquake Engineering, Santiago, Chile, Jan. 9-13.

12.Ou, Y.C., Alrasyid, H., Haber, Z.B., and Lee, H.J. (2017). “Cyclic behavior of precast high-strength reinforced concrete columns with grouted-spliced longitudinal and welded-spliced transverse reinforcement.” Proceedings of 16th World Conference on Earthquake Engineering, Santiago, Chile, Jan. 9-13.

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14.Ou, Y.C., Wang, P.H., and Chang, K.C. (2016). "A new smooth hysteretic model for ductile flexural-dominated RC bridge columns." Proceedings of 2016 Taiwan-Japan Workshop on Structural and Bridge Engineering, Taipei, Taiwan, May 24-25.

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16.Ou, Y.C., and Pratiwi A. Y. (2015). "Displacement-based design for precast segmental unbonded post-tensioned concrete bridge columns with energy dissipation bars." ACI Fall Convention, Denver, USA, November 8-12.

17.歐昱辰，陶其駿，吳靖儀, Victor Luis. (2015). “低矮鋼筋混凝土沿街式新建建築屋後外牆之耐震設計與評估.” 低矮鋼筋混凝土建築耐震設計、評估與補強技術與政策推動研討會, 11 月 6 日，台北市，台灣.

18.Ou, Y.C., and Nguyen, D. N. (2015). "Influence of reinforcement corrosion on cyclic behavior of reinforced concrete beams." 2015 Symposium on Reliability of Engineering Systems (SRES), Taipei, Taiwan, October 21-24.

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1. Ou, Y.C., Nhien, T.A., Zhang, R.T., Chen, Y.M., and Liu, Y.Q. (2017). "Retrofit of nonductile reinforced concrete columns of mid-rise buildings using reinforced concrete jacketing." Research Report, Architecture and Building Research Institute, ISBN: 9789860543223. (In Chinese)
2. Ou, Y.C., Tsai, T.C., Lai, Y.Y., and Wang, Z.J. (2016). "Seismic strengthening of low-rise reinforced concrete buildings using non-rectangular columns." Research Report, Architecture and Building Research Institute, ISBN: 9789860509298. (In Chinese)
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## 期刊論文(Journal　Paper)

1. 謝瑋桓，盧煉元，蕭輔沛，湯宇仕，黃尹男（2018 年 06 月）。中高樓結構機率式倒塌風險評估法之應用研究。**結構工程**，33(2), 89-120。
2. 顏愉、溫欣儀、黃尹男、陳柏華（2018 年 10 月）。尖端人工智慧於土木設施應用之展望。土木水利，第四十五卷，第五期，第 51-58 頁。
3. Huang, Y.-N., Whittaker, A. S., and Hamburger, R. O. (2017, Nov). A simplified analysis procedure for performance-based earthquake engineering of building. *Engineering Structures*, 150(11), 719-735. 本人為第一作者、通訊作者.
4. Lin, F.-R., Chai, J.-F., Lai, Z.-Y., Chen, M.-Y., Huang, Y.-N., and Chang, K.-C. (2017, Mar). A simplified method for the evaluation of seismic demands on in-cabinet equipment in motor control center type cabinets in nuclear power plants. *Journal of the Chinese Institute of Engineers*, 40(3), 179-190.
5. Samanta, A., and Huang, Y.-N. (2017, Mar). Ground motions scaling for seismic performance assessment of high-rise moment-resisting frame building. *Soil Dynamics and Earthquake Engineering*, 94(3), 125-135.
6. Huang, Y.-N., Yen, W.-Y., and Whittaker, A. S. (2016, Dec). Correlation of horizontal and vertical components of strong ground motion for response-history analysis of safety-related nuclear facilities.. *Nuclear Engineering and Design*, 310(12), 273-279. 本人為第一作者、通訊作者.
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8. Epackachi, S., Whittaker, A. S. Huang, Y.-N. (2015, Feb). Analytical modeling of rectangular SC wall panels. *Journal of Constructional Steel Research*, 105, 49-59.

## 研討會論文 (Conference Paper)

1. Yang, Y.-H., Lin, Y.-C., Chang, C.-C., and Huang, Y.-N. (2019, Sep). Performance of friction-pendulum bearing systems subjected to near-fault ground motions. International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, Taipei, Taiwan. MOST 108-2221-E-002-083. 本人為通訊作者.
2. Huang, Y.-N., Chang, C.-C., Cheng, Y.-C., and Ho, C.-A. (2018, Nov). In-plane cyclic behavior of steel-plate composite walls with boundary elements. The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan. MOST 107-2221-E-002-027. 本人為第一作者、通訊作者.
3. Yang, Y.-H., Lin, Y.-C., and Huang, Y.-N. (2018, Nov). An experimental study of frictional-pendulum isolation system subjected to pulse-like ground motions. The 20th Taiwan-Japan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Kyoto, Japan. 本人為通訊作者.
4. Huang, Y.-N. (2017, Sep). Seismic behavior of steel-plate composite walls.. 3rd International Conference on Sustainable Infrastructure and Built Environment (SIBE), Bandung, Indonesia. 本人為第一作者、通訊作者.
5. Huang, Y.-N., Chang, C.-C., and Lin, B.-S. (2017, Sep). In-plane cyclic behavior of shear-critical steel-plate composite walls. The 19th Taiwan-Japan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Seoul, Korea.. 本人為第一作者、通訊作者.
6. Chang, C.-C., Huang, Y.-N., Cheng, Y.-C., and Ho, C.-A. (2017, Jul). An experimental study of the in-plane cyclic behavior of steel-plate composite walls with boundary elements.. 24th International Conference on Structural Mechanics in Reactor Technology (SMiRT), Busan, Korea.
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Tainan, Taiwan. 本人為第一作者.

10. Huang, Y.-N. (2016, Aug). Cyclic Behavior of Steel-Plate Composite Wall Piers. the Second Huixian International Forum on Earthquake Engineering for Young Researchers, Beijing, China. 本人為第一作者、通訊作者.
11. Huang, Y.-N., and Liu, C.-R. (2016, Jul). Impact of near-fault ground motions on the efficiency of viscous-damping systems.. ASME 2016 Pressure Vessels and Piping Conference, British Columbia, CA. 本人為第一作者、通訊作者.
12. Chang, C.-C., Huang, Y.-N., and Chen, B.-A. (2015, Sep). An experimental study of the cyclic behavior of low aspect ratio SC wall piers.. The 17th Japan-Taiwan-Korea Joint Seminar on Earthquake Engineering for Building Structures , Tokyo, Japan. 本人為通訊作者.
13. Chang, C.-C., Huang, Y.-N., Chen, B.-A., Epackachi, S., and Whittaker, A. (2015, Aug). An experimental study of the in-plane cyclic behavior of low aspect ratio SC wall piers.. 23nd International Conference on Structural Mechanics in Reactor Technology, Manchester, UK.
14. Yu, C.-C., and Huang, Y.-N. (2015, Aug). Impact of uncertainty on seismic probabilistic risk assessment of nuclear power plants.. 23nd International Conference on Structural Mechanics in Reactor Technology, Manchester, UK. 本人為通訊作者.

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15. 楊亞衡, 林禹辰, 張長菁, 黃尹男 （2018 年 11 月）。摩擦單擺隔震系統受脈衝型地震歷時作用之振動台試驗。中華民國第十四屆結構工程研討會暨第四屆地震工程研討會，台中，台灣。
16. 高翊書, 詹家昕, 黃尹男, 張長菁（2018 年 11 月）。含邊界構材之鋼板混凝土複合牆之耐震行為及反覆載重試驗研究。中華民國第十四屆結構工程研討會暨第四屆地震工程研討會，台中，台灣。
17. 黃尹男, 高翊書, 詹家昕, 張長菁（2018 年 09 月）。含邊界構材之鋼板混凝土複合牆之耐震行為及反覆載重試驗研究。第六屆海峽兩岸地震工程青年學者研討會，大連,中國。科技部：107-2221-E-002-027。本人為第一作者、通訊作者。
18. 張長菁, 黃尹男, 鄭與錚, 何其安 （2016 年 08 月）。含邊界構材之鋼板混凝土複合牆之耐震行為及反覆載重試驗研究。中華民國第十三屆結構工程研討會暨第三屆地震工程研討會，桃園。

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High Performance Concrete, Fiber Reinforced Concrete, Reinforced Concrete, Seismic Design for RC Structures

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## 技術報告

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## 期刊論文(Journal Paper)

1. Omar A. Sediek; Tung-Yu Wu; Jason McCormick; Sherif El-Tawil (2019, Nov). Collapse Behavior of HSS Columns Under Combined Axial and Lateral Loading. *Journal of Structural Engineering*. (Accepted).
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Hydroinformatics, Artificial Intelligence, Stochastic Hydrology and Hydraulics, Rainfall and Flood Forecasting, Computational Hydraulics

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Science-PhD Students Division)

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5. Wang JH, Lin GF, Jhong BC, 2015.05, Effective real-time inundation depth forecasting during typhoon periods, The 2015 International Workshop on Typhoon and Flood – APEC Experience Sharing on Hazardous Weather Events and Risk Management, Taipei, Taiwan.
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11. Lin JT, Lin GF, Lai JS, Huang CH, Lee FZ, Huang CC, Huang GW, 2015.10, The field measurement of 52-Jia Wetland during a tide cycle using ADCP, The 19th Cross-Strait Symposium on Hydraulic Technology Exchange, Shanghai, China. (in Chinese)
12. Lin GF, 2015.11.24, The short-term real-time typhoon flood forecasting, The 2015 APEC Typhoon Symposium, Manila, Philippines. (Keynote Lecture)
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Debris Flow, Environmental Fluid Mechanics, Wave Dynamics

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10. Liu, K. F., and S. C. Wei. 2017. A Complete Watershed Monitoring System in Shenmu Village, Taiwan. The 11th Asian Regional Conference of IAEG, Nov. 28-30, 2017, Kathmandu, Nepal.
11. Wei, S. C., K. F. Liu, Y. M. Huang, and Y. M. Fang. 2017. Characteristics of Ground

Vibration Signal Produced by Debris Flows at Ai-Yu-Zi Creek, Taiwan. The 11th Asian Regional Conference of IAEG, Nov. 28-30, 2017, Kathmandu, Nepal.

12. Liu, K.F. Li, H.C. 2017, Social vulnerability index for natural disaster with case study for debris flows, Taiwan" The International Conference on Human Society and Culture (HSC2016), 8/19–21, Shenzhen, China **(Keynote)**
13. Liu, K. F., and S. C. Wei. 2017. A Complete Watershed Monitoring System in Shenmu Village, Taiwan. The 11th Asian Regional Conference of IAEG, Nov. 28-30, 2017, Kathmandu, Nepal.
14. Wei, S. C., K. F. Liu, Y. M. Huang, and Y. M. Fang. 2017. Characteristics of Ground Vibration Signal Produced by Debris Flows at Ai-Yu-Zi Creek, Taiwan. The 11th Asian Regional Conference of IAEG, Nov. 28-30, 2017, Kathmandu, Nepal.
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17. Li P.C., Wei S.C.*, Liu K.F. (2018) Rheological Parameters Calibration for Unsteady Mud Flows in Concentric Cylinder Viscometer. The 16th International Symposium on Geo-disaster Reduction, Aug. 27-31, 2018, Strasbourg, France.
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20. Liu K.F., Jhou J.M., Wei S.C.*, Chien C.H. (2019) Tipping Bucket Rain Gauge Performance Analysis under Heavy Rainfall. 7th International Conference on Debris-Flow Hazards Mitigation, (EI)
21. Yu Charn - Hsu, Ko Fei Liu, Hung Ming Shu (2019,). Debris flow assessment from rainfall infiltration induced landslide. 7th International Conference on Debris Flow Hazards Mitigation , Colorado - School of Mine, Colorado, USA. (EI).。
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23. Liu, K.F. (2019). Risk Assessment and Mitigation Strategy of Large Scale Potential Landslide. Nature Based Landslide Risk Management Training May 30-31, 2019, Hotel Taj Samudra, Colombo - Sri Lanka by WORLD BANK **(Keynote)**

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2. Choi, J.H., Chae, B.G., Liu, K.F., & Wu, Y.-H. (2016). Numerical analysis of debris flow hazards from case study. Landslides and Engineered Slopes. Experience, Theory and Practice, 2, 649-656
3. Liu, K.F., and Wu, Y.H., 2016 "Debris-2D Tutorial," In (Sassa K. eds.) Landslide Dynamics: ISDR-ICL Landslide Teaching Tools, 108-117.
4. Abolmasov B., Fathani, T. F., Liu, K. F. and Sassa K., 2017 "Progress of the World Report on Landslides" in Advancing Culture of Living with Landslides , pp.219-226. DOI: 10.1201/b21520-73
5. Wu, Y.-H., Liu, K.F., Chen, Y.C., Chiu, Y.J., & Shih, S.S. (2018). TXT-tool 3.886-1.2: Simulation of mass movement in a large-scale watershed. In (Sassa K. eds.) Landslide Dynamics: ISDR-ICL Landslide Interactive Teaching Tools, 2, 251-262.
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## 期刊論文 (Journal Paper)

1.Chen, Tzu-Yin Kasha; Capart, Herve (2020, Mar). Kinematic wave solutions for dam-break floods in non-uniform valleys. *Journal of Hydrology*, 582 ,124381. (SCIE, 6/132,ENGINEERING, CIVIL). MOST 108-2911-I-002-564. 本人為通訊作者.

2. Hung, Chi-Yao; Aussillous, Pascale; Capart, Herve (2018, Oct). Granular surface avalanching induced by drainage from a narrow silo. *Journal of Fluid Mechanics*, 856, 444-469. (SCI, 16/134,MECHANICS). 本人為通訊作者.

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4. Ke, Wun-Tao; Chen, Yu-Wen; Hsu, Hui-Chi; Toigo, Kristian; Weng, Wan-Ching; Capart, Herve (2016, Oct). Influence of sediment consolidation on hydrosuction performance. *Journal of Hydraulic Engineering*, 142(10), 04016037 . (SCI,39/128, ENGINEERING, CIVIL). 本人為通訊作者.

5. Hung, Chi-Yao., Stark, Colin P., and Capart, Herve (2016, Mar). Granular flow regimes in rotating drums from depth-integrated theory. *Physical Review E*,93(3), 030902. (SCI, 7/55, PHYSICS, MATHEMATICAL). 本人為通訊作者.

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7. Ni, Wei-Jay; Capart, Herve (2015, Aug). Cross-sectional imaging of refractiveindex- matched liquid-granular flows. *Experiments in Fluids*, 56(8), 163. (SCI, 43/128, ENGINEERING, MECHANICAL). 本人為通訊作者.

8. Capart, Herve; Hung, Chi-Yao; Stark, Colin P. (2015, Feb). Depth-integrated equations for entraining granular flows in narrow channels. *Journal of Fluid Mechanics*, 765, R4(12 pages) . (SCI, 16/134, MECHANICS). 本人為第一作 者、通訊作者.

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Sediment Transport, Uncertainty Analysis, Risk and Reliability Analysis, Environmental Hydraulics

## 期刊論文 Refereed Journal Publications

(underlined authors indicating Ph.D. or M.S. students supervised; * denoting corresponding author)

- Tsai, C.W.*, and Huang, S-H. (2019) "Influence of turbulent coherent structure on suspended sediment transport" *Water Resources Research* ( accepted ).
- Tsai, C.W.*and Treadwell, H. (2019). "Analysis of Trend and Variability of Toxic Concentrations in the Niagara River using Hilbert-Huang Transform method" *Ecological Informatics* (accepted).
- Tsai, C.W.*, Yeh, J.J. and Huang, C-H. (2019). "Development of Probabilistic Inundation Mapping for Dam Failure Induced Floods" *Stochastic Environmental Research and Risk Assessment* (accepted). 33: 91. https://doi.org/10.1007/s00477-018-1636-8.
- Tsai, C.W.*, Yeh, T.-G., and Y.-R. Hsiao (2018). "Evaluation of Hydrologic and Meteorological Impacts on Dengue Fever Incidences in Southern Taiwan using Time-Frequency Method" *Ecological Informatics*. http://10.1016/j.ecoinf.2018.05.002, Volume 46, 166-178.
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- Oh. J. S., Jung-Il Choi, Choi, S-U, and Tsai, C. W. (2016). "Physically-based Probabilistic Analysis of Sediment Deposition in Open Channel Flow" *ASCE Journal of Hydraulic Engineering* 10.1061/(ASCE)HY.1943-7900.0001269, 04016106.

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- Huang, C.H., and Tsai, C* (2017). “ Estimation of near-bed sediment concentrations by the Lagevin equation using an improved statistical distribution of particle displacement “ Proceedings, 2017 World Water and Environmental Resources Congress, May 22-25, Sacramento, CA.
- Huang, C.H. and Tsai, C. (2016). “ Modeling turbidity currents using the multiple-state discrete-time Markov chains. “ *Proc.*, The 12th International Conference on Hydro-science and Engineering, November 7-10, Tinan, Taiwan.
- Hung, S.Y. and Tsai, C. (2016). “ Application of Batch Poisson process to random-sized batch arrivals of sediment particles. “ *Proc.* , The 12th International Conference on Hydro-science and Engineering, November 7-10, Tinan, Taiwan.
- Mousavi, S. M., Tsai, C. and Young, D.L. (2016). “ Comparison of Localized Radial Basis Functions (LRBF) solution of the two-dimensional advection-diffusion equation to the Finite difference methods (FDMs). “ *Proc.* , The 12th International Conference on Hydro-science and Engineering, November 7-10, Tinan, Taiwan.
- Tsai, C* and Hung, S. Y. (2016). “ Evaluation of potential climate change effects on particle movement in surface water “, Proceedings, 2016 World Water and Environmental Resources Congress, May 17-21, West Palm Beach, FL.

- Liu, C.H., and Tsai, C* (2016). " Application of a Gambler's ruin model to uncertainty assessment of reservoir sedimentation problems " Proceedings, 2016 World Water and Environmental Resources Congress, May 17-21, West Palm Beach, FL.
- Tsai, C* and Lin, E. Y. # (2015). "Evaluation of potential climate change effects on particle movement in surface water" to be presented at 2015 World Water and Environmental Resources Congress, May 17-21, Austin, TX.
- Tsai, C* and Wu, N.K. # (2015). "Application of a Gambler's ruin model to uncertainty assessment of reservoir sedimentation problems " to be presented at 2015 World Water and Environmental Resources Congress, May 17-21, Austin, TX.

## 研討會論文 Conference Presentations (abstracts)

- Tsai, C. W.* and Wu, N.K. (2015). "A multi-state Markov chain model for suspended sediment concentrations" 12th EGU General Assembly, Abstract 2015-10295, Vienna, Austria.
- Liu, C. C. # and Tsai, C.W.* (2015). "Identifying the trend of the morphological change of a natural river using the Hilbert Huang Transform (HHT) method." 12thEGU General Assembly, Abstract 2015-13287, Vienna, Austria.

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## 期刊論文 Refereed Journal Publications

1.葉明生、張博雄、陳新淦、李天浩、于芃，2017，適用於台灣地區降雨預警之閃電躍升演算法探討，大氣科學第 45 期第 4 號，p349-373.

2.Cheng, A.R., T.H. Lee, H.I. Ku, Y.W. Chen, 2016, “Quality Control Program for Real-Time Hourly Temperature Observation in Taiwan”, Journal of Atmospheric and Oceanic Technology. Vol. 33, p953-976.

## 研討會論文 Conference Presentations)

1.吳秉澤、李天浩，2019，應用觀測系統實驗辨識移速場、雨胞和對流強度變化評估極短時外延定量推估降雨之研究，第 24 屆水利工程研討會論文。

2.林彥廷、李天浩，2019，斜板漫地流滯蓄水量－逕流量遲滯效應函數研究，第 24 屆水利工程研討會論文。

3.Matthias Diehl and Tim H. Lee, 2019, Stable modeling of transient flows in pipes, 第 24 屆水利工程研討會論文。

4.黃貫鈞、李天浩，2018，台北南區暴雨淹水調適策略與效益之研究，107 年天氣分析與預報研討會論文集。

5.李天浩、任文瑋、黃貫鈞，2017，模擬分析道路導排、減雨峰和蓄洪滂策略對減輕都市暴雨淹水的效益－以臺北市東區為例，106 年天氣分析與預報研討會論文集。

6.鄭哲榮、李天浩，2017，擴充 ABLER 法為分區聯合最佳化估計降水系統移速場，106 年天氣分析與預報研討會論文集。

7.陳怡彣、鄭安孺、于芃、李天浩、顧欣怡、黃于盈，2017，風速觀測資料品質檢覈技術之研究，106 年天氣分析與預報研討會論文集。

8.陳怡彣、鄭安孺、于芃、李天浩、顧欣怡、黃于盈，2017，風速觀測資料品質檢覈技術

之研究，106 年天氣分析與預報研討會論文集。

9.劉承翰、李天浩、于芃、葉明生、張博雄、陳新淦、鄭安孺，2017，臺灣地區之閃電特徵與降雨相關性探討-以 0601 豪雨為例，106 年天氣分析與預報研討會論文集。

10.于芃、陳怡彣、李天浩、顧欣怡、黃于盈、鄭安孺，2016，地面氣壓場分析技術方法之研究，105 年天氣分析與預報研討會論文集。

11.鄭安孺、張博雄、陳新淦、李天浩、葉明生、陳怡彣、于芃、劉承翰，2016，臺灣地區閃電資料特徵與個案初步分析研究，105 年天氣分析與預報研討會論文集。

12.陳怡彣、顧欣怡、黃于盈、李天浩、鄭安孺、于芃，2016，利用普通克利金法內插雨量差值法修正雷達定量降雨估計推估地面雨量分析場之研究，105 年天氣分析與預報研討會論文集。

13.溫欣儀、李天浩、陳雲蘭，2015，克利金法估計台灣溫度之應用研究，104 年天氣分析與預報研討會論文集。

14.陳怡彣、鄭安孺、李天浩、顧欣怡、黃于盈、張育瑋，2015，溫度資料檢覈技術改進之研究，104 年天氣分析與預報研討會論文集。

15.洪國展、馮智勇、陳姿瑾、李天浩、黃椿喜，2015，利用 ABLER 法發展台灣地區雷達回波外延估計，104 年天氣分析與預報研討會論文集。

16.劉承昕、李天浩、黃椿喜，2015，利用 ABLER 法反演颱風降水系統移速場之研究，104 年天氣分析與預報研討會論文集。

**C.其他著作**

1.李天浩，2015，氣候變遷下的都市水災防治策略（上與下），國立台灣大學風險社會與政策研究中心網站文章。

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Water resources economics and policy, Decision making process, Operational research approach, Stochastic Hydrology and its Use in Water Resources Systems, Hydroinformatics

**期刊論文 REFEREED JOURNAL PUBLICATIONS**

(1) Wang, Y. H, Chu, C. C., **You, G. J. Y.*,** Gupta, H.Y & Chiu, P. H. (2019) Evaluating Uncertainty in Fluvial Geomorphic Response to Dam Removal. *Journal of Hydrologic Engineering*. Accepted.

(2) Liang, C. Y., **You, G. J. Y**.*, & Lee, H. Y. (2019). Investigating the effectiveness and optimal spatial arrangement of low-impact development facilities. *Journal of Hydrology*, *577*, 124008.

(3) Wang, Y. H., Hsu, Y. C., **You, G. J. Y.***, Yen, C. L., & Wang, C. M. (2018). Flood Inundation Assessment Considering Hydrologic Conditions and Functionalities of Hydraulic Facilities. *Water*, *10*(12), 1879.

(4) Chen, P. C., Wang, Y. H., **You, G. J. Y***., & Wei, C. C. (2017). Comparison of methods for non-stationary hydrologic frequency analysis: Case study using annual maximum daily precipitation in Taiwan. *Journal of Hydrology*, *545*, 197-211.

(5) Wei, C. C.*, **You, G. J. Y**., Chen, L., Chou, C. C., & Roan, J. (2015). Diagnosing Rain Occurrences Using Passive Microwave Imagery: A Comparative Study on Probabilistic Graphical Models and "Black Box" Models. *Journal of Atmospheric and Oceanic Technology*, *32*(10), 1729-1744.

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## 期刊論文　*Corresponding author

1. Shih, S.S. *, P.H. Kuo, J.S. Lai (2019, Dec). A nonstructural flood prevention measure for mitigating urban inundation impacts along with river flooding. Journal of Environmental Management, 251: 1-11. (SCI, 37/251, Environmental Science). MOST 106-2621-M-002-004-MY3. 本人為第一作者、通訊作者.
2. Yu, H.L., S.S. Shih* (2018, Oct). Using fish as an ecological indicator to assess the advantage and disadvantage of constructed groynes. Journal of Wetlands, 7 (1): 42-51. 本人為通訊作者.
3. Ouyang, H.T., S.S. Shih, C.S. Wu (2017, Jul). Optimal Combinations of Non-Sequential Regressors for ARX-Based Typhoon Inundation Forecast Models Considering Multiple Objectives. Water, 9(7), 519. (SCI, 29/91, Water Resources).
4. Shih, S.S., Y.Q. Zeng, H.Y. Lee, M.L. Otte, W.T. Fang (2017, Feb). Tracer Experiments and Hydraulic Performance Improvements in a Treatment Pond. Water, 9(2), 137. (SCI, 29/91, Water Resources). NSC 102-2218-E-002-008. 本人為第一作者.
5. Chang, T.J., Y.S. Chang, W.T. Lee, S.S. Shih* (2016, Jul). Flow uniformity and hydraulic efficiency improvement of deep-water constructed wetlands. Ecological Engineering, 92: 28-36. (SCI, 43/165, Ecology). NSC 102-2218-E-002-008. 本人為通訊作者.
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7. Fang, W.T., B.Y. Cheng, S.S. Shih, J.Y. Chou, M.L. Otte (2016, Jan). Modeling driving forces of avian diversity in a spatial configuration surrounded by farm ponds. Paddy and water

environment, 14(1): 185-197. (SCI, AGRICULTURAL ENGINEERING 5/12).

8. Shih, S.S. *, G.W. Hwang, H.L. Hsieh, C.P. Chen, Y.Ch. Chen (2015, Sep). Geomorphologic dynamics and maintenance following mudflat, creek and pond formation in an estuarine mangrove wetland. Ecological Engineering, 82: 590-595. (SCI, 43/165, Ecology). 本人為第一作者、通訊作者.
9. Hsieh, H.L., H.J. Lin, S.S. Shih, C.P. Chen (2015, Jun). Ecosystem functions connecting contributions from ecosystem services to human wellbeing in a mangrove system, northern Taiwan. International Journal of Environmental Research and Public Health, 12(6): 6542-6560. (SCI, 112/251, Environmental Sciences). NSC 101-2621-M-001-003.
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11. Shih, S.S. Shih, H.L. Hsieh, P.H. Chen, C.P. Chen, H.J. Lin (2015, Mar). Tradeoffs between reducing flood risks and storing carbon stocks in mangroves. Ocean & Coastal Management, 105:116-126. (SCI, 25/91, Water Resources). MOST 103-2621-M-002-020. 本人為第一作者.
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Open channel, Sediment transport, Hydrometric measurement

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1. S.K. Jason Chang (2019, Nov), Development of Driverless Bus: Challenges and Opportunities, Invited Speech in the Austria Autonomous Driving Workshop, Taipei.
2. S.K. Jason Chang (2019, Sept), Public Transport and Active Mobility Policy in Taipei. Invited Speech in SLSTL and EASTS Joint Special Session: Best Practices in Transport Policy Formulation_Global Perspectives, 13th International Conference of the Eastern Asia Society for Transportation Studies (EASTS).
3. S.K. Jason Chang (2019, Aug), Mobility as a Service for Smart City, Invited Speech in Touch Taiwan Display International Conference, Taipei, Taiwan.
4. S.K. Jason Chang (2019, Aug), Smart Mobility for Livable Cities, Invited Speech in the 12th ATRANS Annual Conference, Bangkok, Thailand.
5. 張學孔（2019, June），電動載具發展與永續行動力，電動車產業論壇主題演講，台中。
6. S. K. Jason Chang, Ya-Wen Chen, Jacky Fu, Zhao-Neng Zhang, Hsi-Ping Shih (2018, Nov). Using Big Data to Analyze the Productivity of Accessible Transport Services. The 15th International Conference on Mobility and Transport for Elderly and Disabled Persons (TRANSED 2018), Taiwan.
7. De-Jun Wang, Ya-Wen Chen, Ying- Lin Wu and S. K. Jason Chang (2018, May). Smart Bus Terminal Development for Multimodality. the 16th ITS Asia-Pacific Forum, Fukuoka, Japan.
8. S. K. Jason Chang, Chia-Hung Chueh, Ta-Wei Shen, Ya-Wen Chen, Chao-Neng Chang, Chih-Yueh Chen, Shin-Yun Tsai (2018, May). Use of Innovative Cellular-based Probes to Explore Travel Behavior and Identify Potential Terminal Locations for Freeway Bus System on Taipei and Yilan Corridor. the 16th ITS Asia-Pacific Forum, Fukuoka, Japan,.

9. S.K. Jason Chang, Li-An Yu, Ya-Wen Chen (2018, May). Development of Shared Electric Vehicles and Electric Buses in Taiwan. the 16th ITS Asia-Pacific Forum, Fukuoka, Japan.
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11. S.K. Jason Chang (2017, Apr). Integration of Bike, Bus, Metro and Walk. Invited Speech in EASTS-Japan Seminar.
12. S.K. Jason Chang (2017, Jan). Smart Mobility for Livable City. Keynote speech in Special Session on Smart and Livable City, Gujarat Summit, India.
13. S.K. Jason Chang (2016, Dec). ICT for Taiwan High Speed Rail. International Symposium on High Speed Rail, organized by Hong Kong City University.
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15. S.K. Jason Chang (2016, Nov). “Smart Travel and Sustainability”. Invited Speech in Taiwan Europe Environment and Technology Summit.
16. S.K. Jason Chang (2016, Oct). Challenges for Modeling of Behaviors in Future Mobility. Invited speech in New Mobility Modelling Special Session. 23rd ITS World Congress Melbourne, Australia.
17. Yi Yiung Jen and S.K. Jason Chang (2016, Aug). Information and communication technologies for enhanced Emergency Management in Taiwan High Speed Rail. 2016 IEEE International Conference on Intelligent Rail Transportation (ICIRT).
18. S.K. Jason Chang, Ching Yi Chen, Ya Wen Chen (2016, Jul). Motorcycle Management Policy in Taiwan: From Dilemma to Reality. World Conference on Transport Research (WCTR 2016), Shanghai. (Best WCTR Paper Award on Transport in Developing Countries)
19. S. K. Jason Chang, Ya-Wen Chen, Te-Shao Chen, and Cheng-Kun Yang (2015, Sep). The Two-Stage Evaluation Model of Demand Response Transit Services. 11st International Conference of Eastern Asia Society for Transportation Studies (EASTS’ 11), Cebu, Philippines..
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25. 張學孔、李芊、陳科宏、陳雅雯（2016 年 12 月）。需求反應式運輸接駁服務乘客使用意願之研究。中華民國運輸學會 104 年年會暨學術論文國際研討會。
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28. 張學孔、賴勁丞、邱奕珩（2015 年 12 月）。基於站點相依性之公共自行車調度策略。中華民國運輸學會 104 年年會暨學術論文國際研討會。

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## 期刊論文 (Journal Paper)

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C3 許添本、張洺瑋，以存活理論分析駕駛人交通違規舉發未來事故發生時間之影響，中華民國運輸學會 2019 年學術論文研討會，2019 年 12 月。

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C15 許添本,溫谷琳,張哲寧,張儒斌，應用決策樹分析機車停等區長度對機動車減速過程速差之影響，中華民國運輸學會 2018 年學術論文研討會，2018 年 12 月。

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C24 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。中華民國運輸學會 106 年學術論文研討會，2017 年 12 月 7~8 日，PP.1-11。

C25 許添本、白佳樺、黃郁倫。機車騎乘之風險行為感知分析-台灣與印尼之比較。中華民國運輸學會 106 年學術論文研討會，2017 年 12 月 7~8 日，PP.1-16。

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C32 許添本、溫谷琳、張開國、孔垂昌、黃明正。路口機車交通安全改善設計之研究。中華民國運輸學會 104 年學術論文研討會，2015 年 12 月 3~4 日，PP.1-21。

C33 許添本，郭于鴻，行人延滯調查分析與號誌設計應用，中華民國運輸學會 104 年學術論文研討會，2015 年 12 月 3~4 日，PP.1-22。

C34 許添本，吳崇歆，號誌化路口行人一段式及兩段式穿越比較研究，中華民國運輸學會 104 年學術論文研討會, 2015 年 12 月 3~4 日，PP.1-26。

C35 許添本，蕭唯倫，應用後侵佔時間進行交叉口肇事風險水準分析，中華民國運輸學會 104 年學術論文研討會，2015 年 12 月 3~4 日，PP.1-22。

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**A. 期刊論文(Journal Paper)**

a. SCI/SSCI 期刊論文

1. **Chu, J. C.**, Korsesthakarn, K., Hsu, Y.-T.*, Wu, H.-Y. (2019, Nov). Models and a solution algorithm for planning transfer synchronization of bus timetables. Transportation Research Part E, 131, 247-266. (SCI). MOST 105-2628-E-002¬004-MY3. 本人為第一作者.
2. Yan, S., **Chu, J. C.***, Hung, W.-C. (2019). A customer selection and vehicle scheduling model for moving companies. Transportation Letters. (SCI). 本人為通訊作者.
3. **Chu, J. C.*** and Huang, K.-H. (2018, Mar). Mathematical programming framework for modeling and comparing network-level pavement maintenance strategies. Transportation Research Part B, 109, 1-25. (SSCI, 2016: 1/33, Transportation). MOST 105-2628-E-002-004-MY3. 本人為第一作者、通訊作者.
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5. **Chu, J. C.**, Chen, A. Y.*, and Lin, Y.-F. (2017, Dec). Variable Guidance for Pedestrian Evacuation Considering Congestion, Hazard, and Compliance Behavior. Transportation Research Part C, 85, 664–683. (SCI, 2016: 5/34, Transportation Science & Technology). MOST 105-2628-E-002-004-MY3. 本人為第一作者.

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b.非屬 SCI/SSCI 之 EI 或 TSSCI 期刊論文

1. 陳韻如、**朱致遠***、Kanticha Korsesthakarn (2019). Discrete-event System Simulation of Battery Swapping Behaviors for Electric Scooter Drivers. 運輸計劃季刊, 48(1), 63-86. (TSSCI). 本人為通訊作者.

**B.研討會論文(Conference Paper)**

a.國外會議論文

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2. Yang, S.-K., **Chu, J. C.**, Chou, Y.-H., Wang, M.-H., Liu, C.-P. and Xiao, Y.-A., Comparison of solution methods of dial-a-ride problems for rural areas, The

Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.

3. Yeh, J.-C., **Chu, J. C.**, Chou, Y.-H., Huang, H.-P., and Chang, Y.-J., Scheduling and Charging Optimization of Electric Buses, The Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.
4. Wei, Y.-T., **Chu, J. C.**, and Shih, A.-L., A mesoscopic model for large-scale pedestrian simulation, The Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.
5. Liao, F.-Y., **Chu, J. C.**, and Yu, Y.-H., Optimization of Deployment and Repositioning in Dock-less Electric Scooter Sharing Systems, The Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.
6. Lin, Y.-F., Lin, Y.-Y., Korsesthakarn, K., Chen, Y.-J., Kang, C.-Y., and **Chu, J. C.**, Design of Variable Guidance for Pedestrian Evacuation, International Symposium of Transport Simulation & International Workshop on Traffic Data Collection and its Standardization 2018 (ISTS & IWTDCS 2018), Matsuyama, Japan Aug. 4-6, 2018.
7. Wu, H.-Y., Korsesthakarn, K., Chen, Y.-J., Kang, C.-Y., Lin, Y.-Y., and **Chu, J. C.**, Optimization of Transit Timetables Considering Transit Assignment, International Symposium of Transport Simulation & International Workshop on Traffic Data Collection and its Standardization 2018 (ISTS & IWTDCS 2018), Matsuyama, Japan Aug. 4-6, 2018.
8. Chen, Y.-J., Kang, C.-Y., Lin, Y.-Y., Korsesthakarn, K., and **Chu, J. C.**, Optimization of urban transit network design and timetabling for round-trip routes, International Symposium of Transport Simulation & International Workshop on Traffic Data Collection and its Standardization 2018 (ISTS & IWTDCS 2018), Matsuyama, Japan Aug. 4-6, 2018.
9. Shih, H.-H., Kang, C.-Y., Lin, Y.-Y., Korsesthakarn, K., Chen, Y.-J., and **Chu, J. C.**, Integration of Bus Network Design and Dial-a-ride Scheduling, International Symposium of Transport Simulation & International Workshop on Traffic Data Collection and its Standardization 2018 (ISTS & IWTDCS 2018), Matsuyama, Japan Aug. 4-6, 2018.
10. Chen, Y.-J., Yang, S.-K., and **Chu, J. C.**, Location Optimization of Battery Swapping Stations for Electric Scooters, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, Nov. 22-24, 2018.

11. Huang, K.-H., Yeh, J.-C., and **Chu, J. C.**, Mathematical Modeling and Comparison for network-level pavement maintenance strategies, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, Nov. 22-24, 2018.
12. Liao, F.-Y. and **Chu, J. C.**, Mathematical programming model for deployment and balancing in dock-less electric scooter sharing systems, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, Nov. 22-24, 2018.
13. Chao, H.-Y. and **Chu, J. C.**, Mixed-integer programming model and branch-and-price-and-cut algorithm for urban bus network design and timetabling, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, Nov. 22-24, 2018.
14. Kang, C.-Y., Wei, Y.-T., and **Chu, J. C.**, Large-Scale Pedestrian Simulation - An Extension to Floor Field Cellular Automata, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, Nov. 22-24, 2018.
15. **Chu, J. C.**, Urban Transit Network Design and Timetabling Problem for Multi-Depot Round-Trip Routes, INFORMS Transportation and Logistics Society Conference, Chicago, IL, USA, Jul. 26-29, 2017.
16. Huang, K.-H. and **Chu, J. C.**, Model formulation and comparison for network-level pavement maintenance strategies, 2nd International Symposium on Infrastructure Asset Management, Zurich, Switzerland, Jun. 29-30, 2017.
17. **Chu, J. C.**, Li, C.-W., and Wu, H.-Y., A transit planning model considering route directness and transfer coordination, 16th International Conference on Computing in Civil and Building Engineering (ICCCBE2016), Osaka, Japan, July 6 - 8, 2016.
18. **Chu, J. C.**, Lin, Y.-F., and Shih, H.-H., Dynamic Evacuation Guidance Considering Hazards and Congestion, 6th International Conference on Computing in Civil and Building Engineering (ICCCBE2016), Osaka, Japan, July 6 - 8, 2016.
19. **Chu, J. C.**, Huang, K.-H., and Lou, S.-Y., Evacuation of Threshold Maintenance Strategies in Transportation Asset Management, 16th International Conference on Computing in Civil and Building Engineering (ICCCBE2016), Osaka, Japan, July 6 - 8, 2016.
20. **Chu, J. C.** and Chen, S.-C., Transportation Network Protection Based on Path Directness and Travel Demand Weighted Connectivity, 16th International Symposium on Transportation Network Reliability (INSTR 2015), Nara, Japan, August 2-3, 2015.

b.國內會議論文(Coneerence Paper)

1. Yang, S.-K., **Chu, J. C.**, Chou, Y.-H., Wang, M.-H., Liu, C.-P. and Xiao, Y.-A., Comparison and improvement of solution methods of dial-a-ride problems for rural areas, 2019 International Conference and Annual Meeting of Chinese Institute of Transportation, Hsinchu City, Taiwan, Dec. 5-6, 2019 (in Chinese).
2. Yeh, J.-C., **Chu, J. C.**, Chou, Y.-H., Huang, H.-P., and Chang, Y.-J., Optimization of Scheduling and Charging of Electric Buses using Discrete-event Simulation, 2019 International Conference and Annual Meeting of Chinese Institute of Transportation, Hsinchu City, Taiwan, Dec. 5-6, 2019 (in Chinese).
3. Wei, Y.-T., **Chu, J. C.**, and Shih, A.-L., A mesoscopic pedestrian model for large-scale evacuation simulation, 2019 International Conference and Annual Meeting of Chinese Institute of Transportation, Hsinchu City, Taiwan, Dec. 5-6, 2019 (in Chinese).
4. Chen, Y.-J., **Chu, J. C.**, and Liao, F.-Y., Discrete-event System Simulation of Battery Swapping Behaviors for Electric Scooter Users, 2018 International Conference and Annual Meeting of Chinese Institute of Transportation, Taichung City, Taiwan, Dec. 6-7, 2018.
5. Wu, H.-Y., Korsesthakarn, K., and **Chu, J. C.**, Transit timetable optimization with dynamic assignment using mixed integer programming model, The 30th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan, Nov. 2-4, 2017.
6. Shih, H.-H., Kang, C.-Y. and **Chu, J. C.**, Integration of Dial-a-ride Scheduling and Bus Network Design by A Stochastic Programming Model, The 30th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan, Nov. 2-4, 2017.
7. Huang, K.-H., Chen, Y.-J., and **Chu, J. C.**, Mathematical programming framework for modeling and comparing network-level pavement maintenance strategies, The 30th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan, Nov. 2-4, 2017.
8. **Chu, J. C.**, Chen A. Y., Lin, Y.-F., and Lin, Y.-Y., Variable Guidance for Pedestrian Evacuation Considering Congestion, Hazard, and Compliance Behavior, The 30th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan, Nov. 2-4, 2017.
9. Shih, H.-H, **Chu, J. C.**, and Kang, C.-Y., A Stochastic Programming Model for Integration of Bus Network Design and Dial-a-ride Scheduling, 8th International Symposium on Travel Demand Management (TDM), Taipei, Taiwan, Sep. 26-29, 2017.
10. **Chu, J. C.**, Transit network design and scheduling problem for multi-depot round-trip fixed-interval routes, 9th International Conference on Applied

Operational Research (ICAOR), Taoyuan, Taiwan, Dec. 18-20 2017

11. Wu, H.-Y., Korsesthakarn, K., and **Chu, J. C.**, A Mixed Integer Programming Model for Transit Timetable Optimization Considering Transit Assignment, 2017 International Conference and Annual Meeting of Chinese Institute of Transportation, Taipei, Taiwan, Dec. 7-8, 2017.
12. Lin, Y.-F., **Chu, J. C.**, Shih, H.-H., Wu, H.-Y., and Lou, S.-Y., Dynamic Evacuation Guidance Considering Hazards and Congestion, 2016 International Conference and Annual Meeting of Chinese Institute of Transportation, Hualien County, Taiwan, Dec. 8-9, 2016 (in Chinese).
13. **Chu, J. C.** and Chen, S.-C., Highway Network Protection Strategy Considering Connectivity Reliability, 3rd International Conference on Evacuation Modeling and Management (ICEM), Tainan City, Taiwan, June 1-3, 2015.

# 陳柏華 副教授 Chen, Albert Y.

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學歷/美國伊利諾大學香檳分校博士

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專長/ 最佳化模式與演算法、災難運輸規劃、影像處理與電腦視覺在交通運輸之應用

Disaster and Emergency Transportation Planning, Image Sensing in Traffic Engineering Applications, Medical Response Operations

## 期刊論文(Journal Paper)：

* denotes corresponding author, and # indicates student under my supervision.

1. Lee#, C.-D., Lee, Y.-C., and Chen*, A. Y. (2019) "In-Building Automated External Defibrillator Location Planning and Assessment through Building Information Models," *Automation in Construction*, Accepted (**SCI, IF: 4.313, 5-IF: 5.276, Rank: 7/132, Engineering, Civil**).
2. Yen#, Y., Angah#, O., Huang, Y.N., and Chen*, A.Y. (2018) "Potential Applications of State of the Art Artifi- cial Intelligence in Civil Infrastructure Engineering." Journal of the Chinese Institute of Civil and Hydraulic Engineering, Vol. 45, Issue 5. pp. 51-58.
3. Chiang*, W.-C., Hsieh, M.-J., Chu, H.-L., Chen, A. Y., Wen, S.-Y., Yang, W.-S., Chien, Y.-C., Wang, Y.-C., Lee, B.-C., Wang, H.-C., Huang, E.-P., Yang, C.-W., Sun, J.-T., Chong, K.-M., Lin, H.-Y., Hsu, S.-.H, Chen, S.-Y., and Ma M. H. (2017) "The Effect of Successful Endotracheal Intubation on Patient Outcomes following Out-of-hospital Cardiac Arrest in Taipei." *Annals of Emergency Medicine*, 71(3), pp. 387-39, (**SCI, IF: 5.209, 5-IF: 5.661, Rank: 1/29, Emergency Medicine**)
4. Chu, J. C., Chen*, A. Y., and Lin, Y.-F. (2017) "Variable Guidance for Pedestrian Evacuation Considering Congestion, Hazard, and Compliance Behavior." *Transportation Research Part C: Emerging Technologies* Vol. 85, pp. 664-683. (**SCI, IF: 5.775, 5-IF: 6.067, Rank: 3/37, Transportation Science and Technology**)
5. Chen*, A. Y. and Yu#, T.-Y. (2016) "Network Based Temporary Facility Location for the Emergency Medical Services Considering the Disaster Induced Demand and the Transportation Infrastructure in Disaster Response." *Transportation Research Part B:*

*Methodological*. Vol. 91, pp. 408-423, DOI:10.1016/j.trb.2016.06.004. (**SCI, IF: 4.574, 5-IF: 5.257, Rank: 4/132, Engineering, Civil**)

**6.** Chen*, A. Y., Lu#, T.-Y, Ma, H.-M. M., and Sun, W.-Z. (2016) "Demand Forecast using Data Analytics for the Pre-allocation of Ambulances." *IEEE, Journal of Biomedical and Health Informatics (J-BHI)*, Vol. 20, No. 4, pp. 1178-1187 DOI:10.1109/JBHI.2015.2443799. (**SCI, IF: 4.217, 5-IF: 4.390, Rank: 19/155, Computer Science, Information Systems**) (**Cover Article**)

**7.** Chen, A. Y. and Chu*, J. C. (2016) "TDVRP and BIM Integrated Approach for in-Building Emergency Rescue Routing." *ASCE, Journal of Computing in Civil Engineering*, Vol. 30, Issue 5, C4015003, DOI:10.1061/(ASCE)CP.1943-5487.0000522. (**SCI, IF: 2.554, 5-IF: 2.743, Rank: 40/132, Engineering, Civil**)

8. 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, Vol. 17, pp. 452-459.

**9.** Chen*, A. Y. and Huang#, T. (2015) "Toward a BIM Enabled Decision Making for in-Building Response Missions." *IEEE, Transactions on Intelligent Transportation Systems*, Vol. 16, No. 5, pp. 2765-2773, DOI:10.1109/TITS.2015.2422138. (**SCI, IF: 5.744, 5-IF: 6.064, Rank: 2/132, Engineering, Civil**)

10. Liu#, H.-H., Chen*, A. Y., Dai, C.-Y., and Sun, W.-Z. (2015) "Physical Infrastructure Assessment for Emergency Medical Response." *ASCE, Journal of Computing in Civil Engineering*, Vol. 29, Issue 3, 04014044, DOI:10.1061/(ASCE)CP.1943-5487.0000395. (**SCI, IF: 2.554, 5-IF: 2.743, Rank: 40/132, Engineering, Civil**)

11. Chen*, A. Y., Yu#, T.-Y, Lu#, T.-Y, Chung, W.-L., Lai, J.-S., Yeh, C.-H., Oyang, Y.-J., Ma, M. H.-M., and Sun, W.-Z. (2015) "Ambulance Service Area Considering Disaster-induced Disturbance on the Transportation Infrastructure." *ASTM, Journal of Testing and Evaluation*, Vol. 43, Issue 2. DOI:10.1520/JTE20140084. **(SCI, IF: 0.711, 5-IF:0.734, Rank: 25/33, Material Science, Characterization and Testing)**

12. Yan, S.Y., Chen*, A.Y., and Lin, S.M. (2015) "Application of Unmanned Aerial Vehicle on Seismic Risk Assessment and Emergency Response." Journal of the Chinese Institute of Civil and Hydraulic Engineering, Vol. 27, Issue 2. pp. 163-171.

13. Shen, Y.J., Huang*, Y.N., and Chen, A.Y. (2015) "Optimal Fair-Load Scheduling-A Case Study of a Molding Factory." Journal of the Chinese Institute of Civil and Hydraulic Engineering, Vol. 27, Issue 3. pp. 247-254.

## 研討會論文(Conference Paper)：

1. Lin, Y.C., Wang, C.R., and Chen A.Y. (2020) “Optimizing Routing of Mobile Retroreflectivity Units for Pavement Marking Performance Assessment,” Proceedings of 99th Transportation Research Board, Washington, DC.
2. Lin, Y.C., Liao, S.T., Wang, C.R., and Chen A.Y. (2019) “VRP-based Model for Lane Marking Assessment with MRU Vehicle,” The Thirty-Second KKHTCNN Symposium on Civil Engineering, October 24-26, 2019, KAIST Mun-Ji Campus, Daejeon, Korea
3. Qiu W.-X., and Chen A.Y. (2019) “Computer Vision-based In-building Human Demand Estimation for Installation of Automated External Defibrillators,” International Conference on Civil and Building Engineering Informatics (ICCBEI), nd Building Engineering Informatics November 7-8, 2019, Sendai, Japan.
4. Lin, Y.C., Liao, S.T., Wang, C.R., and Chen A.Y. (2019) “TSP-based Model for Lane Marking Assessment with MRU Vehicle,” International Conference on Civil and Building Engineering Informatics (ICCBEI), nd Building Engineering Informatics November 7-8, 2019, Sendai, Japan.
5. Yen, Y., Wen, S.-Y., Y.-H., Huang, Y.-N., and Chen, A. (2018) “Human Tracking for Facility Surveillance,” Computer Vision Conference (CVC), Las Vegas 2019.
6. Wang, J.-C. and Chen, A. Y. (2018) “Image-based Traffic Characteristics Extraction through Deep Learning,” The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24
7. Ou, C.-Y. and Chen, A. Y. (2018) “The Analysis of Audio Content in Emergency Medical Service Dispatch Communication,” The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24
8. Qiu, W.-X. and Chen, A. Y. (2018) “Multi-Camera Human Tracking for Decision Making for Facilities Location in Public Places,” The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24
9. Wei, S.-R. and Chen, A. Y. (2018) “Projection transformation for traffic surveillance cameras through deep learning,” The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24
10. Hsieh, T.-C. and Chen, A. Y. (2018) "Emotion Effect on the Interaction between Caller and Dispatcher in Emergency Medical Service Dispatch Communication" The 17th

International Conference on Computing in Civil and Building Engineering (ICCCBE), Tampere, Finland, June 5-7. (Best Student Paper Award)

11. Lin, B.-W., and Chen, A. Y. (2018) "Improvement of the Efficiency of Object Detection," The 17th International Conference on Computing in Civil and Building Engineering (ICCCBE), Tampere, Finland, June 5-7.
12. Wen, S.-Y., and Chen, A. Y. (2018) "Using Context Encoders in AEC/FM," The 17th International Conference on Computing in Civil and Building Engineering (ICCCBE), Tampere, Finland, June 5-7.
13. Kuo, T.-J. Chan, Y.-C., and Chen, A. Y. (2017) "Development of an Occupant-Centered Integrated Lighting and Shading Control for Energy Saving and Individual Preferences," International Workshop on Computing in Civil Engineering (IWCCE 2017), Seattle, WA, USA, June 25-27.
14. Chen, C.-H. and Chen, A. Y. (2017) "Applied BIM: MAT and MTSP Integrated Approach for the Interior Patrol Routing Problem," International Workshop on Computing in Civil Engineering (IWCCE 2017), Seattle, WA, USA, June 25-27.
15. Chen, C.-C., and Chen, A. Y. (2017) "Video-Based Indoor Human Detection for Decision-Making of the Installation Locations for Automated External Defibrillators," International Workshop on Computing in Civil Engineering (IWCCE 2017), Seattle, WA, USA, June 25-27.
16. Chou, C.-C. and Chen, A. Y. (2017) "EMS Response Actions in Mass Casualty Incidents," International Workshop on Computing in Civil Engineering (IWCCE 2017), Seattle, WA, USA, June 25-27.
17. Chen, C.-H. and Chen, A. Y. (2017) "BIM and MTSP Integrated Approach for the Interior Patrol Routing Problem," International Conference on Civil and Building Engineering Informatics (ICCBEI 2017), Taipei, Taiwan, April 19-21.
18. Chou, C.-C. and Chen, A. Y. (2017) "Victims Assignment In Mass Casualty Incidents," International Conference on Civil and Building Engineering Informatics (ICCBEI 2017), Taipei, Taiwan, April 19-21.
19. Chen, C.-C. and Chen, A. Y. (2017) "Computer Vision-Based Indoor Human Detection for the Data Collection for Installation of Automated External Defibrillators," International Conference on Civil and Building Engineering Informatics (ICCBEI 2017), Taipei, Taiwan, April 19-21.

20. Chen, Y.-S., Chen, A. Y., and Lee, Y.-C. (2016) ”Can Data Facilitate Ambulance Deployment for Pre-hospital EMS?" The 16th International Conference on Computing in Civil and Building Engineering (ICCCBE), Osaka, Japan, July 6-8.
21. Chiu, Y.-L., Chen, A. Y., and Hsieh, M.-H. (2016) ”Vision Based Traffic Conflict Analytics of Mixed Traffic Flow," The 16th International Conference on Computing in Civil and Building Engineering (ICCCBE), Osaka, Japan, July 6-8.
22. Chung, M.-H. and Chen, A. Y. (2016) ”Emergency humanitarian and resource allocation under disaster convergence," The 16th International Conference on Computing in Civil and Building Engineering (ICCCBE), Osaka, Japan, July 6-8.
23. Lee, C.-D., Chen, A. Y., and Chang, C.-Y. (2016) ”In-building Coverage of AED Considering Pedestrian Flow," The 16th International Conference on Computing in Civil and Building Engineering (ICCCBE), Osaka, Japan, July 6-8.
24. Lin, C.-H. and Chen, A. Y. (2015) "Trip Characteristics Study through Social Media Data," International Workshop on Computing in Civil Engineering (IWCCE 2015), Austin, Texas, USA, June 22-25.
25. Chen, A. Y. and Yu, T.-Y. (2015) "Network Based Clustering in Disasters for the Emergency Medical Service," International Conference on Evacuation Modeling (ICEM 2015), Tainan, Taiwan, June 1-3.
26. Chen, A. Y. and Chang, C.-Y. (2015) "Using Hog For Video-Based Human Detection for In-Building Emergency Response," International Conference on Civil and Building Engineering Informatics (ICCBEI 2015), Tokyo, Japan, April 22-25.
27. Chen, A. Y. and Hsieh, M.-H. (2015) "Vision Based Safety Space Identification for Motorcycles," International Conference on Civil and Building Engineering Informatics (ICCBEI 2015), Tokyo, Japan, April 22-25.
28. Chen, A. Y. and Su, C.-H. (2015) "Supply Shortage Forecast using Spatial Data Mining for EMS," International Conference on Civil and Building Engineering Informatics (ICCBEI 2015), Tokyo, Japan, April 22-25.
29. Chen, A. Y. and Yu, T.-Y. (2015) "Clustering Analysis Considering the Utility Cost of the Transportation Infrastructure in Disaster Response for the Emergency Medical Service," International Conference on Civil and Building Engineering Informatics (ICCBEI 2015), Tokyo, Japan, April 22-25. (Best Paper Honorable Mention)

# 許聿廷　助理教授　Yu-Ting Hsu

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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).

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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)。

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(2) 許聿廷、陳薇亘、楊璨凱、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。

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## 期刊論文(Refereed Papers)

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1. 林聰能、曾惠斌，"污水管推進施工障礙排除-以中利污水下水道工程第二期為例"，地下管道期刊，第 39 期，2018

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Game Theory Analysis in Engineering and Tendering, Strategic Management and Construction Internationalization, Financial Economics, Block-chain Modeling and Applications

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8. 劉文遷，荷世平（2019年07月）。營建業導入區塊鏈技術之模型初探。第23屆營建工程與管理研討會，台中，台灣。科技部：106-2221-E-0002-038- MY3。
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## Refereed Journal Papers

A.Articles in Refereed Journals (*: Corresponding author)

1. Chen, P.H., Kan, M.S., and Chang, L.M. (2015). “Sustainable Design for Hospitals in Taiwan.” International Journal of Civil Engineering and Architecture, Vol. 1, No. 1, August 2015, pp. 1-6.
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3. Chen, P.H., Ong, C.F., and Hsu, S.C* (2016). “The Linkages between Internationalization and Environmental Strategies of Multinational Construction Firms.” Journal of Cleaner Production, Vol. 116, March 2016, pp. 207-216. (SCI/EI)
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19. Lin, Y.H., Shi, B, Chen, P.H.*, Xu, Z., and Liu, H. (2019). “A Grey-BPNN Model for Evaluating the Competitiveness of Chinese Contractors in the High-Speed Rail Market in Europe.” Advances in Civil Engineering, Vol. 2019, May 2019, Article ID 5858094, 19 Pages, DOI: https://doi.org/10.1155/2019/5858094. (SCI)
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BIM, Engineering Information and Knowledge Management, Computational Mechanics, Engineering Education

## 期刊論文 (Journal Paper)

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## 期刊論文 (Journal Paper)

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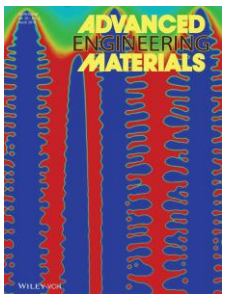


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## C. 專書、技術報告等 (Book, Technical Report)

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6. 賴進松，韓仁毓，張文鎰，劉寅春，康仕仲，謝其泰，譚義績，黃振家，李豐佐，林彥廷，林聖峰，張睿宇，溫明璋（2015）UAV 影像技術應用於河道洪水位及流場之模擬分析，*中國土木水利工程學刊*，第 27 卷第 3 期，第 231-240 頁。(EI)
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2. 林彥廷，韓仁毓（2015）以無人載具影像技術輔助山區渠道空間資訊分析，第三十四屆測量與空間資訊研討會，8 月 27-28 日，臺灣宜蘭。
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