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

(2017-2021)

2022 年 3 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)

水利工程組 (Hydraulic 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

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學歷/ 美國德州大學奧斯汀校區博士

Ph.D., University of Texas, Austin

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 Papers)

1. 林美聆*，洪鳳儀，賴達倫，溫惠鈺，鄭曙耀，2021，“台灣地區的土石流潛勢溪流潛勢資料建立與應用”，災害防救科技與管理學刊，2022 年 第 11 卷 第 1 期。DOI：https://doi.org/10.6149/JDM, ISSN：2227-0515
2. Lin, Meei-Ling, Chen, Yen-Cheng, Tseng, Yao-Hsien, Chang, Kuo-Jen, Wang, Kuo-Lung, “Investigation of Geological Structures Using UAV Lidar and Its Effects on the Failure Mechanism of Deep-Seated Landslide in Lantai Area, Taiwan”, Applied Sciences, 2021 Vol. 11 Issue 21 Pages 10052. (SCI) DOI: https://doi.org/10.3390/app112110052, ISSN: 2076-3417
3. Tsai, Wu-Nan, Chen, Chien-Chih, Chiang, Chih-Wen, Chen, Pei-Yuan, Kuo, Chih-Yu, Wang, Kuo-Lung, Lin, Meei-Ling, Chen, Rou-Fei, “Electrical Resistivity Tomography (ERT) Monitoring for Landslides: Case Study in the Lantai Area, Yilan Taiping Mountain, Northeast Taiwan”, Frontiers in Earth Science, 2021, 9(929).(SCI), DOI: https://doi.org/10.3389/feart.2021.737271, ISSN: 2296-6463
4. Lin, Meei-Ling and Chen, Te-Wei, “Estimating volume of deep-seated landslides and mass transport in Basihlan river basin, Taiwan”, Engineering Geology, 2020, 278: 105825. (SCI), DOI: https://doi.org/10.1016/j.enggeo.2020.105825, ISSN: 2076-3417
5. 林美聆，陳德偉，陳彥澄，民國 108 年 9 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。ISSN：1023-0327。

專書論文

1. Lin, Meei-Ling, Wang, Jian-Fang, Chen, Yen-Cheng, and Chen, Te-Wei, Springer, 2021. Potential Analysis of Deep-seated Landslides Caused by Typhoon Morakot
2. Using Slope Unit. Understanding and Reducing Landslide Disaster Risk: Volume 2 From Mapping to Hazard and Risk Zonation, (5th World Landslide Forum), Springer Nature Switzerland AG, pp.173-183, ISBN 978-3-030-60226-0, ISBN 978-3-030-60227-7 (eBook), https://doi.org/10.1007/978-3-030-60227-7
3. Meei-Ling, Lin, Sheng-Chi, Lin, and Yu-Ching, Lin , Ed. , CRC Press, 2017,
4. Review of landslide occurrence and climate change in Taiwan. Slope
5. Safety Preparedness for Impact of Climate Change (ISBN: 978-1-138-03230-9).
6. EH Leiden, The Netherlands: CRC Press/Balkema. 2017: pp.409-435.
7. 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。

8. 林美聆，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，中興工程科技研究發展基金會，2016

研討會論文(Conference Papers)

1. Lin, Meei-Ling,, Wang, Jian-Fang, Chen, Yen-Cheng, and Chen, Te-Wei, “Potential Analysis of Deep-seated Landslides Caused by Typhoon Morakot Using Slope Unit”, 5th World Landslide Forum in Kyoto, Japan, 3 November 2021, Invited Lecture.
2. 林美聆、曾耀賢，” 蘭台地區大規模崩塌破壞機制與崩塌演化分析 “，第 18 屆大地工程學術研究討論會論文集(Geotech2020)，民國 109 年 9 月 1 日~9 月 3 日，屏東，台灣。
3. Lin, Meei-Ling, Chen, Yen-Chen, and Liu, Te-Chu, “A regional susceptibility assessment for shallow landslides in central Taiwan” SCG-XIII INTERNATIONAL SYMPOSIUM ON LANDSLIDES. CARTAGENA, COLOMBIA- JUNE 15th-19th-2020.
4. Meei-Ling Lin, and Ting-Kuo Chiang, “Long term effects of landslides induced by catastrophic events”, The 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, invited lecture, IS-07, 2019.
5. 林美聆、陳德偉，” 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，民國 108 年 8 月 29 日~8 月 30 日，桃園，台灣。
6. Meei Ling Lin, and Te Wei Chen, “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, Italy, 2019.02.
7. 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.
8. 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 KGSCTGSand TC305 Geotechnical Seminar, Kazakhstan.
9. Meei-Ling, Lin; Kuo-Lung, Wang; and Ruey-Juin, Rau, “Monitoring and Evolution Analysis of Largescale Landslides in the Lushan Area Using Multi-Scale Remote Sensing Techniques”, International Conference on Hazard Mitigation Technology for Large-scale Landslides, Invited lecture, Taipei, 2018
10. Meei-Ling Lin, Yi-Ting Wu, Kuo-Lung Wang, and Yo-Ming Hsieh, “Monitoring of the Deep-seated Landslide using MEMS- a Case Study of Lantai Landslide, Taiwan”, EGU General Assembly 2018, EGU2018- 12531, 2018.
11. Te-Wei Chen, Meei-Ling Lin, and Yen-Chen Chen, “Discriminant analysis of shallow landslides potential in the debris flow basins in Taiwan”, EGU General Assembly 2018, EGU2018- 11512, 2018.
12. 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, “Rainfall induced landslide investigation and back analysis using UAV results and GPS monitoring results”, EGU General Assembly 2018, EGU2018-1478, 2018.
13. 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.

14. Meei-Ling Lin*, Te Wei Chen, Yong Sheng Chen, and Han Sin Jhuang, “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, Seoul, Sep. 17-22, 2017.
15. Meei-Ling Lin ,Te-Wei Chen and Kuo-Chiang Hsia, “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), Sep. 13 - 14, 2017, Taipei, Taiwan.
16. 林美聆，陳德偉，夏國強，”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，民國 106 年 8 月 30 日~9 月 1 日，宜蘭。
17. 林美聆，嚴文彬，”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，民國 106 年 8 月 30 日~9 月 1 日，宜蘭。
18. 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
19. 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.

技術報告

1. 林美聆，陳彥澄，2021.12，臺灣地區沉積岩地質區淺層崩塌與土石流潛勢關聯性分析，行政院農業委員會水土保持局研究創新研究計畫報告。
2. 林美聆，謝有忠，王國隆，2021.7，霧社水庫集水區大規模崩塌物聯網多元多尺度遙測調查監測及災害潛勢模型建立-霧社水庫集水區大規模崩塌潛勢評估與重大案例演化模式建立(總計畫及子計畫四)(I)，科技部計畫報告。
3. 王國隆，林美聆、倪春發、陳建志、陳柔妃、陳宏宇、陳昭維、郭志禹、張國楨、許雅儒、黃信樺、謝佑明，2021.2，109年蘭台大規模崩塌潛勢示範區觀測科技整合與分析，行政院農業委員會水土保持局研究委託研究計畫報告。
4. 林美聆，陳彥澄，2020.12，建立淺層崩塌通用潛勢評估模式可行性研究－南部沉積岩地區（2），行政院農業委員會水土保持局研究創新研究計畫報告。
5. 林美聆，陳彥澄，2021.12，臺灣地區沉積岩地質區淺層崩塌與土石流潛勢關聯性分析，行政院農業委員會水土保持局研究創新研究計畫報告。
6. 林美聆，謝有忠，王國隆，2021.7，霧社水庫集水區大規模崩塌物聯網多元多尺度遙測調查監測及災害潛勢模型建立-霧社水庫集水區大規模崩塌潛勢評估與重大案例演化模式建立(總計畫及子計畫四)(I)，科技部計畫報告。
7. 林美聆、倪春發、陳建志、陳柔妃、陳宏宇、陳昭維、郭志禹、張國楨、許雅儒、黃信樺、謝佑明，2021.2，109年蘭台大規模崩塌潛勢示範區觀測科技整合與分析，行政院農業委員會水土保持局研究委託研究計畫報告。
8. 林美聆，陳彥澄，2020.12，建立淺層崩塌通用潛勢評估模式可行性研究－南部沉積岩地區（2），行政院農業委員會水土保持局研究創新研究計畫報告。

9. 林美聆，王國隆，張國楨，2020.10，集水區大規模崩塌多尺度先進遙測技術整合監測與崩滑行為模擬-總計畫暨子計畫:集水區大規模崩塌高精度地表演化分析及滑移行為模擬之研究(III)，科技部計畫報告。
10. 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，2020.1，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。
11. 林美聆，劉德礎，2019.12，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。
12. 林美聆，王國隆，張國楨，2019.10，集水區大規模崩塌多尺度先進遙測技術整合監測與崩滑行為模擬-總計畫暨子計畫:集水區大規模崩塌高精度地表演化分析及滑移行為模擬之研究(II)，科技部計畫報告。
13. 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，2018.12，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。
14. 林美聆，王國隆，陳彥澄，李苡宣，2018.12，淺層崩塌影響範圍調查劃設及聚落致災評估方法之研究，行政院農業委員會水土保持局研究委託研究計畫報告。
15. 林美聆、王國隆、陳柔妃，2018.7，集水區大規模崩塌多尺度先進遙測技術整合監測與崩滑行為模擬-總計畫暨子計畫:集水區大規模崩塌高精度地表演化分析及滑移行為模擬之研究(I)，科技部計畫報告。MOST 106-2625-M-002-014-
16. 林美聆，陳天健，王國隆，陳彥澄，李苡宣，蘇意筑，2017.12，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。
17. 林美聆，饒瑞鈞，王國隆，2017.7，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。MOST105-2625-M-002-015-

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Rock Mechanics, Numerical Analysis, Engineering Geology

期刊論文(Journal papers)

(一) SCI期刊論文 (*表通訊作者)

1. Wang, T.T.*, O.L.A. Kwok, F.S. Jeng (2021): Seismic response of tunnels revealed following the Chi-Chi earthquake: a review, *Engineering Geology*, 287, 106090.
2. M.C. Weng*, C.Y. Chang, F.S. Jeng, H.H. Li (2020): Evaluating the stability of anti-dip slate slope using an innovative failure criterion for foliation. Engineering Geology 275,105737.
3. Wang, T.T.*, F.S. Jeng, T.T. Lee (2020): Environmental impact of Hsuehshan Tunnel on water quality at Feitsui Reservoir and its tributaries, *Environmental Monitoring and Assessment*, 192, 700.
4. Zhan, S.S., T.T. Wang*, F.S. Jeng (2018): Fracture characterization using hydrogeological approaches and measures taken for groundwater inrush mitigation in shaft excavation, *Tunnelling and Underground Space Technology*, 82, 554-567.
5. 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.
6. Jeng,F.S., M. C. Weng*, F.H. Yeh, Y.H. Yang, T.H. Huang (2017). A Constitutive model of sandstone considering the post peak behavior. Journal of Mechanics 35(1), 13-25.

(二) 非SCI期刊論文：

1. 李紫彤、陳玟伶、楊宜蓉、鄭富書、王泰典、劉曉樺、曹孟真、黃奉琦(2021)：精細測繪於岩坡脆弱度評估及監測應用，*中國土木水利工程學刊*，33(2)，151-162。(EI)
2. M.C. Weng*, F.S. Jeng, C.C. Chiu, Y.C. Lin (2020): Modeling rock bolt reinforcement by using the particulate interface model of DEM. Journal of Geoengineering. (EI)
3. 曹孟真、陳玟伶、李文正、鄭富書、王泰典(2019)：中橫公路大沙溪路段工程地質特性對公路養護之影響，*工程環境會刊*，39，131-159。

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1. 黃宥傑、蘇仁偉、蘇芳郁、王泰典、鄭富書(2020)：板岩邊坡穩定受不連續面影響探討－以田古爾溪口附近為例，第 18 屆大地工程學術研究討論會，墾丁，B27。
2. 陳玟伶、曹孟真、王泰典、鄭富書(2020)：岩坡上潛在移動岩塊辨識與視覺化技術，第 18 屆大地工程學術研究討論會，墾丁，P05。(本文獲選為特優論文)
3. 楊宜蓉、Johnson, K.M.、王泰典、鄭富書(2020)：利用震源機制解與大地震同震應力變化量逆推地殼三維應力場與軸差應力絕對值，以日本 311 大地震為例，第 18 屆大地工程學術研究討論會，墾丁，I09。
4. Wang, T.T., W.L. Chen, F.S. Jeng, M.C. Tsao, W. Lo, W.J. Lee (2020): Engineering geological factors affect maintenance of Dasha River section of Tai-8 Highway, ISRM International Symposium Eurock 2020 – Hard Rock Engineering, Trondheim, Norway, 14-19 June.
5. 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.
6. 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。

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Engineering Geology, Rock Mechanics, Slope Stability

期刊論文 (Journal Papers)

1. Liu, Chun-Yuan Li Chien-Hung , Chan Pei-Chen, Hung, Chien-Hui, **Lin, Ming-Lang** (2021) 3D sandbox and numerical modeling of coseismic surface rupture induced by oblique-slip faulting and its interaction with embedded shallow foundation. Engineering Geology. https://doi.org/10.1016/j.enggeo.2021.105990. (SCI)
2. **Lin, M.L**., Lin, C.H., Li, C.H., Liu, C.Y., Hung, C.H., (2021) 3D modeling of the ground deformation along the fault rupture and its impact on engineering structures: Insights from the 1999 Chi-Chi earthquake, Shigang District, Taiwan. Engineering Geology. https://doi.org/10.1016/j.enggeo.2021.105993. (SCI)
3. 謝沛宸、朱聖心、楊貴三、**林銘郎**（2021）整合古文獻及無人機攝影測量技術：考察臺北水道原取水口之百年演變，臺北文獻，215，163-210。
4. **林銘郎** (2020) 穿越一甲子-細說地質專業對臺灣道路建設的貢獻，地質，39 卷，第 3-4 期，11-15 頁。
5. 董家鈞、 陳天健、 陳江淮、**林銘郎** (2020) 大地工程發展史-天然災害，地工技術，164 期，101-116 頁。
6. Yang, Kuo-Hsin, Chiang, Jung, Lai, Chao-Wei, Han, Jie, **Ming-Lang Lin** (2020) Performance of geosynthetic-reinforced soil foundations across a normal fault. Geotextiles and Geomembranes 48 (2020) 357–373. (SCI)。
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Geotechnical Earthquake Engineering including Soil Dynamics.

Ground Motion Characterization and Site Response Analysis

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Foundation Engineering, Geotechnical Earthquake Engineering, Seismic Design of Foundations, Soil-Structure Interaction

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Structural Mechanics, Sound & Vibration, Boundary Elements, Lie Groups, Clifford Analysis

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專利(Patents)

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Reinforced Concrete, Earthquake Resistance Design Evaluation, and Retrofitting of Reinforced Concrete Structures, Prestressed Concrete

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11. Chou, C. C.*, Lee, C. S., Wu, K. Y., Chin, V. L. (2018). "Development and Validation of a FRP-Wrapped Spiral Corrugated Tube for Seismic Performance of Circular Concrete Columns" ***Construction and Building Materials***, 170, 498-511 (9/132, 5-Year IF=4.685, IF=4.046, SCI, EI) **(中華民國尖端材料技協會 106 年度學生論文比賽產品創新競賽組特優獎)**
12. Wang, J. F.*, Li, B. B., Chou, C. C., Chen, L, (2018). "Cyclic Experimental and Analytical Studies of Buckling-Restrained Braces with Various Gusset Connections". ***Engineering Structures,*** 163, 38-50. (22/132, 5-Year IF= 3.345, IF=3.084, SCI, EI)
13. 劉郁芳*，周中哲，彭冠儒，陳冠儒(2021)「鋼造挫屈束制支撐構架一樓柱近斷層之側位移及柱軸力加載歷時發展」，結構工程(accepted for publication)
14. 周中哲*(2021)「制震黑科技雙核心自復位斜撐」，住展雜誌，470，10 月號，72-74 頁。**(焦點人物)**
15. 周中哲*，鍾秉庭，粘評，陳威霖，柯鎮洋，王志誠，陳景誠(2020)「板橋浮洲高層住宅以外覆鋼板及鋼造雙 K 型斜撐耐震補強評估」，土木水利，第四十七卷，第六期(12 月)，35-40 頁。**(鋼結構專輯)**
16. 劉佳豪，張盈智，周中哲*，鍾秉庭，陳俊翰 (2020)「鋼造夾型挫屈束制斜撐於高層建築物設計實驗及應用」，土木水利，第四十七卷，第六期(12 月)，52-58 頁。(鋼結構專輯)
17. 周中哲*，陳冠維，林德宏(2020)「箱型鋼柱考慮寬厚比軸力近斷層地震下的耐震行為與背骨曲線發展」，結構工程特刊，第三十五卷，第四期，57-75 頁。(in Chinese，**2021 中華民國結構工程學會結構工程論著獎)**
18. 周中哲*，陳冠維，林德宏(2020)「高強度銲接箱型鋼柱側向耐震實驗：近斷層載重歷時與背骨曲線發展」，鋼結構工程，第 66 期(12 月)，43-66 頁。(in Chinese，**2020 中華民國鋼結構協會第 10 屆徵文比賽最佳論文獎**)
19. 李中生，周中哲*，譚皓祥，陳威霖(2020)「玻璃纖維包覆金屬螺紋管圍束混凝土之軸壓試驗與力學模型」，結構工程，第三十五卷，第一期，25-39 頁。
20. 周中哲*，鍾秉庭，粘評，陳威霖，劉郁芳，柯鎮洋，王志誠，陳景誠(2019)「板橋浮洲新建高層住宅結構補強實驗及 ETABS 非線性動力耐震評估」，結構工程，第三十四卷，第二期，43-75 頁 。
21. 周中哲*，汪家銘，黃漠見(2019) 「地牛翻身也不怕-大橋抗震新標竿」，科學月刊 12 月號第 600 期，62-65 頁。**(前瞻未來專欄)**

22. 周中哲*，林德宏(2019)「懸吊拱橋的結構與破壞緣由」，科學月刊 11 月號第 599 期，12-13 頁 。(**思辨之評**)

23. 周中哲*，蔡文璟，鍾秉庭 (2019)「鋼造自復位挫屈束制斜撐(SC-SBRB)發展及耐震試驗」，結構工程，第三十四卷，第一期，57-76 頁 。

24. 周中哲*，曾冠霖，凌郁婷(2018)「新竹科學園區 1990 年代之十層樓鋼構造標準廠房微振動長期監測及耐震能力評估」，結構工程，第三十三卷，第一期，5-27 頁 。

25. 周中哲*，蕭佳宏，陳澤邦，鍾秉庭，范廷海(2017)「全尺寸二層樓雙核心自復位斜撐構架與夾型挫屈束制斜撐構架之耐震試驗與非線性動力歷時分析」，結構工程，第三十二卷，第二期，35-64 頁(in Chinese)。(**2017 韓國首爾國際發明展金牌獎及特別獎(30 國參展、632 件專利作品)**

26. 周中哲*，吳松城(2017)「高強度混凝土充填箱型鋼柱於高軸力下之耐震試驗」，結構工程，第三十二卷，第一期，25-48 頁(in Chinese)。

研討會論文(Conference Papers)

1. Chou, C. C., Lin, T. H., Lai, Y. C., Xiong, H. C., Uang, C. M., El-Tawil, S., McCormick, J. P., Mosqueda G. (2020). "US-Taiwan Collaborative Research on Steel Column Through Cyclic Testing of Two-Story Subassemblages", ***17th World Conference on Earthquake Engineering***, Paper No. C4352 (2i-0213), Sep. 13-18, Sendai, Japan.

2. Chou, C. C., Chen, G. W. (2020). "Cyclic Lateral Testing and Backbone Curve Development of Steel Built-up Hollow Box Columns in High Axial Load", ***17th World Conference on Earthquake Engineering***, Paper No. C313 (2c-0023), Sep. 13-18, Sendai, Japan.

3. Chou, C. C. (2020). "Effects of Self-Centering Brace and Buckling-Restrained Brace on Seismic Response of Steel Frames." ***17th World Conference on Earthquake Engineering***, Special Session for Towards Earthquake Resilience: Recent Developments in Self-Centering Structural Systems and Devices. Sep. 13-18, Sendai, Japan. **(Invited Speaker for Special Session)**

4. Lin, T. H., Chou, C. C., Chen, G. W. (2020). A Seven-Story Steel BRBF under Far-Field and Near-Fault Earthquakes: Loading Protocols and Seismic Tests of Columns. ***8th International Conference on Advances in Experimental Structural Engineering,*** Feb. 3-5, Christchurch, New Zealand. **(Invited Speaker for Special Session)**

5. Chou, C. C., Huang, C. H., Tseng W. H., Tsuang S., Chang, L. M., Chen, Y. H., (2019). Development and Seismic Tests of a Novel Steel Lever Viscoelastic Wall with Friction as a Seismic-Resisting Damper. ***12th Pacific Structural Steel Conference***, NOVEMBER 9 -11, TOKYO, JAPAN.

6. Chou, C. C., (2019). Seismic Design and Validation of Steel Braced Frames: Buckling-Restrained Brace and Self-Centering Brace. ***University of Michigan, Ann Arbor***, October 2-3, USA. **(Invited Speaker)**

7. Pham, D. H. and Chou, C. C. (2019). Test of a Full-Scale Two-Story Steel X-BRBF: Strong-Axis Instability of Buckling Restrained Brace Associated with Out of-Plane Bending of Gusset Connection. ***Proceedings of the International Conference on Sustainable Civil Engineering and Architecture,*** October 24-26, Ho Chi Minh, Vietnam.

8. Chou, C.C., Lin, T. H., Xiong, H. C., Lai, Y. C., Uang, C. M., El-Tawil, S., McCormick, J. P., Mosqueda G. (2019). "US-Taiwan Collaborative Research on Steel Columns: Cyclic Lateral Testing of Two-Story Subassemblages", ***NRC-MOST/NCREE Taiwan Workshop on Earthquake Engineering Technologies***, 7-8 October 7-8, Ottawa, Canada. **(Invited Speaker)**

9. Chou, C. C., Lin, T. H., Xiong, H. C., Lai, Y. C., Uang, C. M., El-Tawil, S., McCormick, J. P., Mosqueda G. (2019). "US-Taiwan Collaborative Research on Steel Columns: Cyclic Testing of Two-Story Subassemblages", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

10. Chou, C. C., Chung, P. T., Ling, Y. T., Huang, C. H., Tseng, W. H., Tsuang, S., Chang, L. M., Chen, Y. H. (2019). "Development and Validation of Seismic-Resisting Dampers: Buckling-Restrained Brace, Self-Centering Brace and Lever Viscoelastic Wall Device", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

11. Lin T. H., Chou, C. C., Chen, G. W. (2019). "A Seven-Story Steel Braced Frame under Far-Field and Near-Fault Earthquakes: Loading Protocol and Seismic Test of High-Strength Steel H-Shaped Columns", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

12. Chou, C. C., Kuo, M. C. (2019). "Seismic Test and Analysis of Wind-Turbine Hollow Steel Round Columns with a Large Diameter-to-Thickness Ratio", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

13. Lee, C. S., Chou, C. C., Tan, H. H., Wu, K. Y., Chen, V. L. (2019). "Mechanical Response of Concrete-Filled FRP-Wrapped Steel Corrugated Tube Column", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

14. Liu, J. H., Chang, Y. C., Chou, C. C., Chung, P. T. (2019). "Design and Application of SBRB Frames for Steel Tall Buildings in Taiwan: Brace Orientation and Connection", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

15. Liu, Y. F., Lin, J. L., Chou, C. C., Weng, Y. T., Chao, S. H., Kuo, C. H. (2019). "Analytical Modeling of a Half-Scale Seven Story Reinforced Concrete Building Shaken Near-Fault Earthquake Motions", ***International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake***. Taiwan. Sep. 15-19.

16. Chou, C. C. (2018). "Smart Monitoring and Earthquake Reduction Technologies for High-Tech Fabs", ***SEMICON Japan***, 13-14 December 2018, Tokyo, Japan. **(Invited Speaker)**

17. Chou, C. C., Wu, S. C. (2018). "Test and Finite Element Analysis of High-Strength Concrete Filled Steel Box Columns under Combined High-Axial Load and Cyclic-Lateral Load", ***Proceedings of the Ninth International Conference on Advances in Steel Structures (ICASS'2018)***, 5-7 December 2018, Hong Kong, China.

18. Pham, D. H. and Chou, C. C. (2018). "Stability of Sandwiched Buckling Restrained Brace in Full-Scale Two-Story X-BRBF Tests", ***7th International Doctoral Symposium***, November 19-21, Sapporo Japan. **(Funded by Hokkaido University)**

19. Chou, C. C., Hsiao, C. H., Chen, Z. B., Chung, P. T., Pham, D. H. (2018). "Seismic Tests of Full-Scale Two-Story Steel Frames with Self-Centering Braces and Buckling-Restrained Braces", ***Proceedings of the 11th National Conference on Earthquake Engineering***, Earthquake Engineering Research Institute, Los Angeles, CA.

20. Weng, Y. T., Jhuang, S. J. and Chou, C. C. (2018). "Analytical studies of a half-scale 3-story non-seismic detailing reinforced concrete building shaken to near-fault earthquakes", ***Proceedings of the 11th National Conference on Earthquake Engineering***, Earthquake Engineering Research Institute, Los Angeles, CA.

21. Shen, W. C. Hsiao, F. P., Weng, P. W., Li, Y. A., Chou, C. C., Chung, L. L. (2018). "Seismic Tests of a Mixed-Use Residential and Commercial Building Using a Novel Shaking Table". ***Proceedings of the 11th National Conference on Earthquake Engineering***, Earthquake Engineering Research Institute, Los Angeles, CA.

22. Chou, C. C. (2018). "Collaboration Research at NTU: Example of Earthquake Engineering", ***The 8th Asian Engineering Deans' Summit***, Tokyo Institute of Engineering, Tokyo, Japan. **(Invited Speaker)**

23. Chou, C. C. (2018). "Self-Centering Structures: from Member to System Level Development and Validation", ***Meijo Science Technology Seminar***, Meijo University, Nagoya, Japan. **(Invited Speaker)**

24. Pham, D. H., Chou, C. C. (2017). Stability of Sandwiched Buckling Restrained Braces in Full-Scale Two-Story Steel X-BRBF Tests. ***The Thirtieth KKHTCNN Symposium on Civil Engineering***, November 2-4, Taipei.

25. Chou, C. C. (2017). Smart Monitoring and Earthquake Reduction Technologies for High-Tech Fabs. ***High-Tech Facility International Forum of SEMICON Taiwan 2017***, September 14th, Taipei. **(Keynote Speech)**

26. Capart, H., Chou, C. C., Kuo, P. H., Yu, W. L., Hsu, T. H., Hsieh, S. H., Lu, L. H., Tomita, M. (2017). Education of future builders through footbridge design to construction projects. ***6th International Footbridge Conference***, September 6-8, Berlin.

27. Chou, C. C., Lee, C. S., Wu, K. Y., Chin, V. L. (2017). Development of a FRP-Wrapped Spiral Corrugated Tube for Seismic Performance of Reinforced Concrete Columns. ***2017 International Conference on Earthquakes and Structures***, Aug. 28-Sep. 1, Seoul, Korea.

28. Chung, P. T., Chou, C. C. (2017). Seismic test and finite element analysis of a high-performance dual-core self-centering brace with a friction gusset connection. ***2017 International Conference on Earthquakes and Structures***, Aug. 28-Sep. 1, Seoul, Korea.

29. 周中哲(2021)「兩層樓高強度鋼構架於高軸力下的耐震實驗行為研究」，2021 國家地震工程研究中心實驗成果研討會，12 月 2 日，臺北市

30. 周中哲，鍾秉庭，凌郁婷(2020)「預力自復位系統的應用與研究:摩擦接合板結合自復位斜撐耐震性能」，2020 鋼筋混凝土與鋼結構設計技術研討會，12 月 17~18 日，臺北市**(Invited Speaker)**

31. 周中哲(2020)「離岸風機複合結構柱耐震研究：大徑厚比鋼管柱及高分子複合材料包覆鋼管柱試驗及規範比較」，2020 國家地震工程研究中心實驗成果研討會，11 月 30 日，臺北市

32. 周中哲(2020)「兩層樓高強度鋼構架之鋼柱於高軸力下的側向耐震實驗」，2020 國家地震工程研究中心實驗成果研討會，11 月 30 日，臺北市

33. 周中哲(2020)「應用摩擦接合於高性能自復位斜撐之耐震性能研究」，2020 國家地震工程研究中心實驗成果研討會，11 月 30 日，臺北市

34. 周中哲，陳冠維，林德宏(2020)「高強度銲接箱型鋼柱於中高軸力下之側向耐震實驗與背骨曲線發展」，中華民國第 15 屆結構工程暨第 5 屆地震工程研討會，9 月 2~4 日，臺南市

35. 林德宏，周中哲(2020)「七層樓挫屈束制斜撐構架受遠域與近斷層地震之鋼柱載重歷程發展: 高強度鋼柱實驗驗證」，中華民國第 15 屆結構工程及第 5 屆地震工程研討會，9 月 2~4 日，臺南市

36. 劉郁芳，周中哲(2020)「ETABS 非線性動力評估鋼筋混凝土高層建築結構補強效益」，中華民國第 15 屆結構工程及第 5 屆地震工程研討會，9 月 2~4 日，臺南市

37. 李中生，蘇仁康，周中哲(2020)「以 LS-Dyna 模擬複合材料加勁皺褶鋼管填充混凝土的軸壓行為」，中華民國第 15 屆結構工程及第 5 屆地震工程研討會，9 月 2~4 日，臺南市

38. 周中哲(2019)「長週期脈衝地震與自復位結構」，台科大高階科技研發碩士學程，5 月 18 日，臺北市**(Invited Speaker)**

39. 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

40. 周中哲，萬家汶，鍾秉庭(2018)「含消能鋼筋之自復位斜撐發展及試驗驗證」，中華民國第 14 屆結構工程及第 4 屆地震工程研討會，11 月 6~8 日，臺中市

41. 周中哲，曾文豪，黃俊翔 ，曾冠霖 (2018)「新槓桿黏彈制震壁的研發及試驗」，中華民國第 14 屆結構工程及第 4 屆地震工程研討會，11 月 6~8 日，臺中市

42. 周中哲，鍾秉庭， 陳威霖，粘評(2018)「板橋浮洲高樓層住宅全尺寸補強構件試驗」，中華民國第 14 屆結構工程及第 4 屆地震工程研討會，11 月 6~8 日，臺中市

43. 周中哲，吳松城，吳愷毅，陳威霖，李中生(2018)「鋼與混凝土複合柱於高軸力下抗震實驗」，第 16 屆結構穩定與疲勞學術交流會暨教學研討會，8 月 25-28 日，青島，中國 **(Invited Speaker**，in Chinese**)**

44. 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**)**

45. 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**)**

46. 李中生，周中哲，陳威霖，吳楷毅(2017) 「玻璃纖維包覆加勁金屬螺紋管圍束混凝土行為研究」，2017 創新鋼構造耐震技術研討會，9 月 29，台北市

47. 周中哲，鍾秉庭，凌郁婷，鄭宇岑，劉佳豪，張盈智(2017) 「夾型挫屈束制斜撐與自復位斜撐構架設計與試驗:新竹廠房案例」，2017 創新鋼構造耐震技術研討會，9 月 29，台北市

48. 周中哲，吳松城(2017) 「高強度混凝土充填 SM570M 箱型鋼柱於高軸力下之耐震行為」，2017 創新鋼構造耐震技術研討會，9 月 29，台北市

49. 周中哲(2017)「預力組裝之鋼造建築抗震設計與實驗性能」，第四屆全國金屬減震技術研討會及 2017 中國南通裝配式建築暨金屬減震產業發展人才峰會，8 月 16-18 日，南通，中國**(Keynote Speaker**，in Chinese**)**

研究報告(Research Reports)

1. 周中哲、劉郁芳、周德光 (2021)「鋼骨鋼筋混凝土構造設計規範柱及接合設計之修正研擬」內政部建築研究所委託研究期末報告。(in Chinese)

2. 謝承翰(2021) 「風機鋼管圓柱在彎矩與軸力作用下之行為:實驗與有限元素分析」碩士論文指導教授：周中哲，國立臺灣大學土木工程學系。(in Chinese)

3. Kumar, A. (2021) 「Effects of Boundary Conditions on Steel Box Column Behavior in Two-Story Subassemblage Frames using Finite Element Analysis」碩士論文指導教授：周中哲，國立臺灣大學土木工程學系。(in English)

4. 歐昱辰、周中哲、王威儒、賴柏丞(2021)「新型鋼骨預鑄混凝土複合式構架接頭試驗報告」，Report NCREE-21-003，國家地震工程研究中心。(in Chinese)

5. Pham, D. H. (2020) 「Stability of Sandwiched Buckling Restrained Braces in a Steel Full-Scale Two-Story Steel Frame」, Ph. D. Thesis Advisor：周中哲，國立臺灣大學土木工程學系。(in English)

6. 劉郁芳、周中哲、曾郡于、孫琛琛（2020）「國內外規範之鋼骨鋼筋混凝土構造梁柱接合設計」，Report NCREE-20-017，國家地震工程研究中心。(in Chinese)

7. 周中哲、鍾秉庭、覃文康、黃立宇、周延勳(2020)「板橋馥華艾美大樓新建工程夾型鋼骨挫屈束制消能支撐試驗」，成果報告，中華民國結構工程學會。(東鋼構、in Chinese)

8. 賴耘川(2020) 「H 型鋼柱耐震行為: 兩層樓子構架與固接柱之試驗」碩士論文指導教授：周中哲，國立臺灣大學土木工程學系。(in Chinese)

9. 熊厚淳(2020) 「兩層樓子構架高強度箱型鋼柱耐震試驗與模擬分析」碩士論文指導教授：周中哲，國立臺灣大學土木工程學系。(in Chinese)

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Computational Mechanic, Computational Materials, Biomechanics; Collagen; Mechanobiology, Atomic Scale Modeling, Multi-Scale/Multi-Physics Modeling

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9. Y. Chiang, W.H. Hui, and **S.W. Chang**. (2021, Nov 13-17). *Dynamics-informed graph neural network for protein function prediction*. 2021 Materials Research Society-Taiwan International Conference (2021 MRSTIC), Taipei, Taiwan.
10. Y. Chiang, and **S.W. Chang**. (2021, Oct 16). *Combining deep graph neural network with normal mode analysis for protein function prediction*. 2021 Annual Scientific Meeting of Taiwanese Society of Biomechanics (TSB 2021), Taipei, Taiwan.
11. Y.Y. Lai, and **S.W. Chang**. (2021, Oct 16). *Molecular mechanism and the effects of nanoplastics on extracellular matrix degradation*. 2021 Annual Scientific Meeting of Taiwanese Society of Biomechanics (TSB 2021), Taipei, Taiwan.
12. 邱霈欣, 惠維翰, 吳茵茵, 陳祥和, 周佳靚, **張書瑋**. (2021, Oct 16). *The influence of warm-up on the mechanical properties of collagen: A molecular dynamics approach*. 2021 Annual Scientific Meeting of Taiwanese Society of Biomechanics (TSB 2021), Taipei, Taiwan.
13. 惠維翰, **張書瑋**. (2021, Oct 16). *在小應力下交聯對膠原蛋白纖維的影響*. 2021 Annual Scientific Meeting of Taiwanese Society of Biomechanics (TSB 2021), Taipei, Taiwan.
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15. Y. Chiang, and **S.W. Chang**. (2021, Aug 24-26). *In silico investigation of cellular composites inspired by liquidambar formosana*. The 2021 World Congress on Advances in Structural Engineering and Mechanics (ASEM21), Seoul, Korea.
16. T.C. Liu, W.H. Hui, C.C. Chou, and **S.W. Chang**. (2020, Nov 27-Dec 4). *Self-supervised graph representation learning for cell-penetrating peptides*. 2020 MRS Fall Meeting, Boston, MA, USA.
17. **S.W. Chang**, C.H. Yu, L.W. Liu, and Z. Qin. (2019, Dec 17-20). *Artificial intelligence and multiscale modeling for computational materials design*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
18. **S.W. Chang**, Z. Xu, S. Ryu, and D. Lau. (2019, Dec 17-20). *Computational mechanics for nano-/bio-structures and materials in engineering applications*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
19. Y. Chiang, and **S.W. Chang**. (2019, Dec 17-20). *In silico nanoindentation of Calcium-Silicate-Hydrates*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
20. D. Li, and **S.W. Chang**. (2019, Dec 17-20). *Catalytic mechanism of biomaterials in cartilage: A bottom-up computational investigation of the aggrecan cleavage cite*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
21. X.D. Lin, Y.Y. Tsai, Y. Chiang, C.C. Tung, P.Y. Chen, C.S. Chen, and **S.W. Chang**. (2019, Dec 17-20). *Lightweight composite materials with bio-inspired morphologies*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
22. S.L. Tsai, Y.C. Hsu, P.Y. Chen, **S.W. Chang**, and C.S. Chen. (2019, Dec 17-20). *Discover*

high toughness microstructures of bio-inspired materials using machine learning techniques. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.

23. W.H. Yang, D. Li, T.C. Lin, **S.W. Chang**, and K.C. Yeh. (2019, Dec 17-20). *Application of time series prediction method for potential of mean force calculations with molecular dynamics*. Asian Pacific Congress on Computational Mechanics 2019 (APCOM 2019), Taipei, Taiwan.
24. W.H. Hui, D. Li, K.C. Yeh, J.J. Dong, and **S.W. Chang**. (2019, Dec 15-19). *Understanding the molecular mechanism of cartilage degradation and cation channel activity*. 8th International Conference on Mechanics of Biomaterials and Tissues (ICMOBT 2019), Waikoloa, Hawaii, USA.
25. Y. Chiang, and **S.W. Chang**. (2019, Dec 1-6). *In silico nanoindentation of Calcium-Silicate-Hydrates from NMR-informed atomistic modeling*. 2019 MRS Fall Meeting, Boston, MA, USA.
26. D. Li, K.C. Yeh, Y. Chiang, and **S.W. Chang**. (2019, Dec 1-6). *Understanding the molecular mechanism of cartilage degradation and cation channel activity*. 2019 MRS Fall Meeting, Boston, MA, USA.
27. M. Hsu, S.L. Tsai, J.P. Wang, P.Y. Chen, **S.W. Chang**, and C.S. Chen. (2019, Oct 13-15). *Generative adversarial networks for material design of bio-inspired microstructure*. 56th Annual Technical Meeting of the Society of Engineering Science (SES 2019), St. Louis, MO, USA.
28. D. Li, W.H. Yang, T.C. Lin, and **S.W. Chang**. (2019, Oct 13-15). *Application of time series prediction method for potential of mean force calculations with molecular dynamics*. 56th Annual Technical Meeting of the Society of Engineering Science (SES 2019), St. Louis, MO, USA.
29. S.L. Tsai, M. Hsu, P.Y. Chen, **S.W. Chang**, and C.S. Chen. (2019, Oct 13-15). *Discover high toughness microstructures of bio-inspired materials using machine learning techniques*. 56th Annual Technical Meeting of the Society of Engineering Science (SES 2019), St. Louis, MO, USA.
30. D. Li, K.C. Yeh, and **S.W. Chang**. (2019, Oct 12). *In silico exploration of mechanical properties of extracellular matrix and cation channel activity in cartilage*. Mechanobiology Annual Symposium & Preconference, St. Louis, MO, USA.
31. Y. Chiang, and **S.W. Chang**. (2019, Jun 17-19). *Catalytic mechanism of biomaterials in cartilage: A bottom-up computational investigation of the aggrecan cleavage site*. TechConnect World Innovation, Boston, MA, USA.
32. D. Li, and **S.W. Chang**. (2019, Jun 17-19). *Catalytic mechanism of biomaterials in cartilage: A bottom-up computational investigation of the aggrecan cleavage site*. TechConnect World Innovation, Boston, MA, USA.
33. T.H. Kao, D. Li, Y.C. Lai, and **S.W. Chang**. (2019, May 25-26). *In silico investigation of the molecular structure of the transient receptor potential cation channel subfamily V member 4*. 7th TWSIAM Annual Meeting (TWSIAM 2019), Hsinchu, Taiwan.
34. D. Li, and **S.W. Chang**. (2019, Apr 22-26). *Catalytic mechanism of biomaterials in cartilage - A bottom-up computational investigation of the aggrecan cleavage site*. 2019 MRS Spring Meeting, Phoenix, AZ, USA.
35. D. Li, and **S.W. Chang**. (2019, Mar 25-28). *Effects of deformation rate on the unbinding pathway of the MMP8-Aggrecan_IGD complex in cartilage*. International Conference on Computational & Experimental Engineering and Sciences (ICCES 2019), Tokyo, Japan.

36. W.H. Hui, and **S.W. Chang**. (2018, Nov 30-Dec 2). *Molecular mechanisms of tendon and bone: Multiscale modeling of the structures and mechanical responses of collagen fibril*. 3rd Global Conference on Biomechanical Engineering & TSBME 2018 (2018 GCBME & TSBME), Taoyuan, Taiwan.
37. W.H. Hui, and **S.W. Chang**. (2018, Nov 22-24). *The influence of aging and disease on the mechanical and structural properties of collagen fibers in tissues: A molecular dynamics approach*. The 31st KKHTCNN Symposium On Civil Engineering, Kyoto, Japan.
38. D. Li, and **S.W. Chang**. (2018, Nov 22-24). *Characterizing the conformational ensemble of aggrecan core protein cleavage sites: A bottom up computational mechanics approach*. The 31st KKHTCNN Symposium On Civil Engineering, Kyoto, Japan.
39. Y.H. Chen, C.S. Chen, and **S.W. Chang**. (2018, Jul 22-27). *Full atomic modeling of the parathyroid hormone/parathyroid hormone-related protein type 1 receptor and its ligand binding*. 13th World Congress in Computational Mechanics (WCCM 2018), NYC, USA.
40. **S.W. Chang**, S. Ryu, D. Lau, and Z. Xu. (2018, May 29-Jun 1). *Computational mechanics of nano- and bio- structures and materials for engineering applications*. Engineering Mechanics Institute Conference 2018 (EMI 2018), Cambridge, MA, USA.
41. Y.C. Lai, T.Y. Shih, and **S.W. Chang**. (2018, May 29-Jun 1). *Molecular mechanisms of the inhibitory effect of Hya-HEAL+ on collagen degradation*. Engineering Mechanics Institute Conference 2018 (EMI 2018), Cambridge, MA, USA.
42. H.C. Li, and **S.W. Chang**. (2018, May 29-Jun 1). *Structural characteristics of 8-oxoguanine during DNA replication: A molecular dynamics approach*. Engineering Mechanics Institute Conference 2018 (EMI 2018), Cambridge, MA, USA.
43. Y.H. Kuan, C.H. Wen, and **S.W. Chang**. (2017, Oct 19-20). *The properties of waterborne biodegradable polyurethane hydrogel: A molecular dynamics study*. 3rd Association of Computational Mechanics Taiwan Conference (ACMT 2017), Tainan, Taiwan.
44. Y.C. Lai, T.Y. Shih, and **S.W. Chang**. (2017, Oct 19-20). *The molecular structure of Hya-HEAL+: A molecular dynamics approach*. 3rd Association of Computational Mechanics Taiwan Conference (ACMT 2017), Tainan, Taiwan.
45. H.C. Li, and **S.W. Chang**. (2017, Oct 19-20). *Structural characteristics of 8-oxoguanine during DNA replication — a molecular dynamics approach*. 3rd Association of Computational Mechanics Taiwan Conference (ACMT 2017), Tainan, Taiwan.
46. Y.Y. Tsai, C. C. Watanabe, and **S.W. Chang**. (2017, Oct 19-20). *Effective elastic properties of nano-scale gold honeycombs*. 3rd Association of Computational Mechanics Taiwan Conference (ACMT 2017), Tainan, Taiwan.
47. C.H. Wen, Y.H. Kuan, S.H. Hsu, and **S.W. Chang**. (2017, Oct 11-13). *Molecular dynamics simulations of waterborne biodegradable polyurethane hydrogel for 3D printing*. Simulation for Additive Manufacturing, Munich, Germany.
48. C.H. Wen, Y.H. Kuan, S.h. Hsu, and **S.W. Chang**. (2017, Oct). Molecular dynamics simulations of waterborne biodegradable for 3D printing. *Simulation for Additive Manufacturing 2017*, *2017*, 125-126
49. C.H. Wen, Y.H. Kuan, S.H. Hsu, and **S.W. Chang**. (2017, Nov 5-9). *The self-assembly of waterborne biodegradable polyurethane hydrogel: A molecular dynamics study*. 18th International Union of Materials Research Societies International Conference in Asia (IUMRS-ICA 2017), Taipei, Taiwan.
50. I.I. Ng, **S.W. Chang**, and H.H. Chen. (2017, Jul 23-27). *Effect of temperature and hydration*

on the mechanical properties of collagen molecule: A computational study using molecular dynamics. XXVI Congress of the International Society of Biomechanics (ISB 2017), Brisbane, Australia.

51. T.H. Kao, Y.H. Chen, and **S.W. Chang**. (2017, July 17-20). *The structural changes of finger 3 in the mutated ankyrin repeat domain of the human TRPV4 channel alter ATP binding ability*. 14th U.S. National Congress on Computational Mechanics (USNCCM14), QC, Canada.

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期刊論文 (Journal Papers)

英文 SCI 期刊

1. Chou, J. Y., **Chang, C. M.**, and Spencer, B. F., Jr. (2021). "Out-of-plane modal property extraction based on multi-level image pyramid reconstruction using stereophotogrammetry." *Mechanical Systems and Signal Processing*, accepted. (**SCI, Engineering-Mechanical, Q1, 2020**)
2. Chou, J. Y., Fu, Y., Huang, S. K., and **Chang, C. M.** (2021). "SHM data anomaly classification using machine learning strategies: A comparative study." *Smart Structures and Systems*, accepted. (**SCI, Engineering-Civil, Q2, 2020**)
3. Hsu, S. H., Chang, T. W., and **Chang, C. M.** (2021). "Impacts of label quality on performance of steel fatigue crack recognition using deep learning-based image segmentation." *Smart Structures and Systems*, accepted. (**SCI, Engineering-Civil, Q2, 2020**)
4. Chou, J. Y. and **Chang, C. M.** (2021). "Image motion extraction of structures using computer vision techniques: A comparative study." *Sensors*, 21(18), 6248. (**SCI, Instruments and Instrumentation, Q1, 2020**)
5. Hsu, T. W. and **Chang, C. M.** (2021). "Dynamic characteristics of geometrically nonlinear isolation systems for seismic protection of equipment." *Earthquake Engineering and Structural Dynamics*, 50(10), 2795-2816. (**SCI, Engineering-Civil, Q1, 2020**)
6. Liu, J., Yu, A., **Chang, C. M.**, and Ren, W. X. (2021). "A new physical parameter identification method for shear frame structures under limited inputs and outputs." *Advances in Structural Engineering*, 24(4), 667-679. (**SCI, Engineering-Civil, Q3, 2020**)
7. **Chang, C. M.** and Chou, J. Y. (2020). "Modal tracking of seismically-excited buildings using stochastic system identification." *Smart Structures and Systems*, 26(4), 419-433. (**SCI, Engineering-Civil, Q1, 2019**)
8. Chen, Y. Y., Qian, Z. C., Zhao, W., and **Chang, C. M.** (2020). "A magnetic bi-stable nonlinear energy sink for structural seismic control." *Journal of Sound and Vibration*, 473, 155233. (**SCI, Mechanics, Q1, 2019**)
9. Liu, J., Wang, S., Zheng, J., **Chang**, **C. M.**, Wei, X., and Ren, W. (2020). "Time-frequency signal processing for integrity assessment and damage localization of concrete piles."

International Journal of Structural Stability and Dynamics, 20(02), 2050020. (**SCI, Engineering-Civil, Q2, 2019)**

10. **Chang, C. M.**, Lin, T. K., and Chang, C. W. (2018). "Applications of neural network models for structural health monitoring based on derived modal properties." *Measurement*, 129, 457-470. (**SCI, Engineering-Multidisciplinary, Q2, 2017**)
11. Chou, J. Y. and **Chang, C. M.** (2018). "Decentralized damage detection of seismically-excited buildings using multiple banks of Kalman estimators." *Advanced Engineering Informatics*, 38, 1-13. (**SCI, Engineering-Multidisciplinary, Q1, 2017**)
12. **Chang, C. M.**, Shia, S., and Lai, Y. A. (2018). "Seismic design of passive tuned mass damper parameters using active control algorithm." *Journal of Sound and Vibration*, 426, 150-165. (**SCI, Engineering-Mechanical, Q1, 2017**)
13. **Chang, C. M.**, Shia, S, and Yang, C. Y. (2018). "Use of active control algorithm for optimal design of base-isolated buildings against earthquakes." *Structural and Multidisciplinary Optimization*, 58(2), 613-626. (**SCI, Engineering-Multidisciplinary, Q1, 2017**)
14. **Chang, C. M.** and Chou, J. Y. (2018). "Damage detection of seismically-excited buildings based on prediction errors." ASCE *Journal of Aerospace Engineering*, 31(4), 04018032. (**SCI, Engineering-Aerospace, Q2, 2017**)
15. **Chang, C. M.**, Chou, J. Y., Tan, P., and Wang, L. (2017). "A sensor fault detection strategy for structural health monitoring systems." *Smart Structures and Systems*, 20(1), 43-52. (**SCI, Engineering-Civil, Q2, 2016**)
16. Tan, P., Huang, J., **Chang, C. M.**, and Zhang, Y. (2017). "Failure mode of isolated continuous girder bridge." *Engineering Failure Analysis*, 80, 57-78. (**SCI, Engineering-Mechanical, Q2, 2016**)

英文 EI 期刊

1. Hsu, S. H., Chang, T. W., and **Chang, C. M.** (2020). "Concrete Surface Crack Segmentation Based on Deep Learning." *Special Collection in European Workshop on Structural Health Monitoring*, 128, 24-34. (**EI**)
2. Huang, S. K., Lai, Y. A., **Chang, C. M.**, Yang, C. Y., and Loh, C. H. (2020). "Experimental investigation of an active mass damper with acceleration feedback sliding mode control." Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems. (**EI**)
3. Chou, J. Y. and **Chang, C. M.** (2019). "Use of bank of Kalman estimators for damage detection of buildings." *Proceedings of the SPIE*, Denver, CO. (**EI**)
4. **Chang, C. M.** and Huang, S. K. (2017). "Operational modal analysis using time-frequency stochastic system identification." The 8th International Conference on Structural Health Monitoring of Intelligent Infrastructure, Brisbane, Australia. (**EI**)
5. Huang, S. K., Liao, Y., **Chang, C. M.**, Loh, C. H., Kiremidjian, A., and Rajagopal, R. (2017). "Use of time-frequency damage sensitive features for structural damage diagnosis." The 11th International Workshop on Structural Health Monitoring, Stanford, CA. (**EI**)
6. **Chang, C. M.**, Shia, S., and Yang, C. Y. (2017). "Design of buildings with seismic isolation using linear quadratic algorithm." The X International Conference on Structural Dynamics, Eurodyn 2017, Rome, Italy. (**EI**)

英文非 SCI、EI 期刊

1. Song, W., **Chang, C. M.**, and Dertimanis, V. K. (2020). "Recent advances and applications of hybrid simulation." *Frontiers in Built Environment*, 6, 203.
2. Kang, S. C., **Chang, C. M.**, Yang, Y. Y., and Liang, C. J. (2018). "Independent hoisting system: structural components, lifting mechanism, crane control." *Impact*, 5, 59-61.

中文期刊

1. 楊耀畬、**張家銘**、康世仲、葉芳耀，2021，「施工導向之結構接頭設計應用於快速組裝便橋之研究」，中國土木水利工程學刊，準備出版中。
2. 周肇昱、**張家銘**，2021，「基於影像量測之模態萃取技術之探討與比較」，三聯技術期刊，第 121 期，20-25 頁。
3. 周肇昱、黃謝恭、**張家銘**，2021，「利用深度學習進行訊號異常識別之方法比較及在線識別」，土木水利學會會刊，第四十八卷第二期，32-39 頁。
4. 張庭維、許筠曼、吳亭諺、許舜翔、**張家銘**，2021，「影像分析方法應用於構造物外觀異狀自動化偵測之發展」，土木水利學會會刊，第四十八卷第二期，40-47 頁。
5. 許舜翔、張庭維、**張家銘**、陳俊杉、韓仁毓、林曜滄、林魁士、張廷瑩，2020，「深度學習應用於影像裂縫辨識：發展智慧維運系統以監控結構安全性」，中華技術，第 128 期，76-87 頁。
6. 林子剛、**張家銘**、張至維，2018，「應用模型參數識別及類神經網路畬結構健康診斷」，土木水利學會會刊，第四十五卷第五期，101-110 頁。
7. 張世昇、陳翊翔、張書瑋、**張家銘**、林詠彬、張國鎮、陳俊杉*，2018，「機器學習於橋墩沖刷預測之應用」，土木水利學會會刊，第四十五卷第五期，111-122 頁。

研討會論文 (Conference Papers)

英文會議論文

1. **Chang, C. M.** and Hsu, T. W. (2020). "Performance evaluation and design of seismic isolation systems with geometric nonlinearity for important equipment." 17th World Conference on Earthquake Engineering, Sendai, Japan.
2. **Chang, C. M.** and Chou, J. Y. (2020). "Near real-time building damage detection based on a bank of Kalman estimators." IMAC-XXXVIII, Texas, USA.
3. **Chang, C. M.** and Chou, J. Y. (2019). "Damage detection of seismically excited building using banks of Kalman filters." The 21st Japan-Taiwan-Korea Joint Seminar on Earthquake Engineering for Building Structures, Hsinchu, Taiwan.
4. Yu, J. W., Chou, J. Y., and **Chang, C. M.** (2019). "Crack detection based on deep learning and computer vision algorithms." The 32nd KKHTCNN Symposium on Civil Engineering, Daejeon, Korea.
5. Wang, X. and **Chang, C. M.** (2019). "Development and experimental verification of dual-length nonlinear pendulum for seismic protection of buildings." The 32nd KKHTCNN Symposium on Civil Engineering, Daejeon, Korea.

6. Chou, J. Y. and **Chang, C. M.** (2019). “3D modal feature extraction based on video measurement.” The 32nd KKHTCNN Symposium on Civil Engineering, Daejeon, Korea.
7. **Chang, C. M.** and Chou, J. Y. (2019). “Dynamic characterization of seismically-excited structures using frequency-domain stochastic subspace system identification.” Proceedings of 9th International Conference on Structural Health Monitoring of Intelligent Infrastructure, St. Louis, MI.
8. Yang, C. Y., Su, C. K., **Chang, C. M.**, and Hsu, C. C. (2019). “Effective use of lead rubber bearing for an isolated bridge in Taiwan through parametric study.” Bridge Engineering Institute Conference 2019, Honolulu, HI.
9. Su, C. K., **Chang, C. M.**, Yang, C. Y., and Hsu, C. C. (2019). “Investigation of pounding effect for a seismically isolated bridge based on a simplified model.” Bridge Engineering Institute Conference 2019, Honolulu, HI.
10. **Chang, C. M.**, Chiang, H. F., and Chou, J. Y. (2019). “Assessment of mode shapes based damage detection methods for building structures.” IX ECCOMAS Thematic Conference on Smart Structures and Materials, Paris, France.
11. Yang, Y. Y., **Chang, C. M.**, Kang, S. C., and Yeh, F. Y. (2019). “Study of construction-oriented structural connectors for a temporary bridge.” Proceedings of the 36th International Symposium on Automation and Robotics in Construction, Banff, Alberta, Canada.
12. Chou, J. Y. and **Chang, C. M.** (2019). “Modal property extraction based on frequency domain stochastic subspace identification.” 13th International Conference on Damage Assessment of Structures, Porto, Portugal.
13. Chou, J. Y., **Chang, C. M.**, and Huang, S. K. (2018). "Automated Modal Property Extraction Based on Frequency-domain Stochastic Subspace System Identification." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
14. Chiang, H. F. and **Chang, C. M.** (2018). "Numerical Investigation of Mode Shape-Based Damage Detection Methods for Buildings." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
15. Ho, Y. C. and **Chang, C. M.** (2018). "Dynamic Behavior of Nonlinear Pendulum for Seismic Protection of Buildings." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
16. Hsu, T. W. and **Chang, C. M.** (2018). "Dynamic Characteristics of Geometrically Nonlinear Isolation Systems for Seismic Protection of Equipment." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
17. Hsieh, C. Y., Chou, J. Y., and **Chang, C. M.** (2018). "Crack Detection Based on Deep Learning and Computer Vision." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
18. Han, M. C. and **Chang, C. M.** (2018). "Investigation of Key Factors for Low Seismic Performance in Developing and Developed Countries." The 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan.
19. **Chang, C. M.** and Chiang, H. F. (2018). “Numerical investigation of mode shape-based damage detection methods for buildings.” The 7th Asia-Pacific Workshop on Structural Health Monitoring, Hong Kong, China.

20. Yang, Y. Y., **Chang, C. M.**, and Kang, S. C. (2018). "Framework of Automated Beam Assembly and Disassembly System for Temporary Bridge Structures." The 35th International Symposium on Automation and Robotics in Construction, Berlin, Germany.
21. Chen, P. Y., Zhuang, Z. Y., **Chang, C. M.**, and Kang, S. C. (2018). "A numerical model for the attitude manipulation of twin-hoisted object." The 35th International Symposium on Automation and Robotics in Construction, Berlin, Germany.
22. **Chang, C. M.** and Huang, S. K. (2018). "Frequency-domain damage detection of seismically-excited buildings." The 9th European Workshop on Structural Health Monitoring, Manchester, UK.
23. **Chang, C. M.** and Yang, C. Y. (2018). "Seismic design of linear passive control systems using nonsmooth H_∞ synthesis." 11th U.S. National Conference on Earthquake Engineering, Los Angeles, CA.
24. **Chang, C. M.** and Yang, C. Y. (2018). "Application of nonsmooth H_∞ synthesis to optimally design linear passive control systems." The 2018 IEEE International Conference on Applied System Innovation, Tokyo, Japan.
25. Chou, J. Y. and **Chang, C. M.** (2017). "Application of Kalman estimators for damage detection of seismically-excited buildings." The 13th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan.
26. **Chang, C. M.**, Shia, S., and Yang, C. Y. (2017). "Design of linear passive control systems for buildings using dynamic output feedback control method." The 3rd Huxian International Forum on Earthquake Engineering for Young Researchers, Champaign, IL.
27. **Chang, C. M.** and Huang, S. K. (2017). "Operational modal analysis of structures using frequency-domain stochastic subspace system identification." The 13th International Workshop on Advanced Smart Materials and Smart Structures Technology, Tokyo, Japan.
28. Yang, Y. Y., Chen, P. Y., Kang, S. C., **Chang, C. M.**, Chiang, Y. C., Kou, and T. Y. T. (2017). "Crane-Based autonomous erection and assembly system." 3rd International Conference on Civil and Building Engineering Informatics & 2017 Conference on Computer Applications in Civil and Hydraulic Engineering, Taipei, Taiwan.
29. Shia, S., **Chang, C. M.**, Yang, C. Y. (2017). "Passive base isolation design of seismically-excited buildings using linear quadratic approach." 3rd International Conference on Civil and Building Engineering Informatics & 2017 Conference on Computer Applications in Civil and Hydraulic Engineering, Taipei, Taiwan.
30. **Chang, C. M.** and Huang, S. K. (2017). "Damage diagnosis of seismically-excited buildings using dual matrix projection of time-frequency distributions." 3rd International Conference on Civil and Building Engineering Informatics & 2017 Conference on Computer Applications in Civil and Hydraulic Engineering, Taipei, Taiwan.
31. Chou, J. Y. and **Chang, C. M.** (2017). "A sensor fault detection strategy for structural health monitoring systems." 3rd International Conference on Civil and Building Engineering Informatics & 2017 Conference on Computer Applications in Civil and Hydraulic Engineering, Taipei, Taiwan.

中文會議論文

1. 楊卓諺、喬丹、鍾立來、**張家銘**，2021，「滾輪慣性對偏心滾動隔震系統之性能影響研究」，中華民國力學學會第四十五屆全國力學會議 (CTAM 2021)，新北市，臺灣，18-19 Nov.
2. 賴勇安、楊卓諺、**張家銘**，2021，「最佳被動調諧質量阻尼器設計-直接輸出回饋設計方法」，2021 電子計算機於土木水利工程應用研討會，桃園，臺灣，30-31 Aug.
3. 張庭維、許筠曼、吳亭諺、許舜翔、**張家銘**，2021，「影像分析方法應用於構造物外觀異狀自動化偵測之發展」，2021 電子計算機於土木水利工程應用研討會，桃園，臺灣，30-31 Aug.
4. 楊耀畬、葉芳耀、**張家銘**、康仕仲，2020，「自動化施工之模組化結構接頭設計」，第 24 屆營建工程與管理學術研討會，臺北，臺灣，5 Aug.
5. 許維倫、**張家銘**，2020，「利用振動時頻域資料解析模式進行列車車輪即時狀態識別」，第 20 屆非破壞檢測技術研討會，高雄，臺灣，22-23 Oct.
6. 巫宜謙、楊卓諺、**張家銘**，2020，「基底隔震建築上部構造高寬比上限值之探討」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
7. 莊奕婕、黃謝恭、**張家銘**，2020，「感測器融合用於軌跡重建慣性測量單元」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
8. 劉倢妤、**張家銘**，2020，「具斜交黏滯阻尼器之幾何非線性隔震系統」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
9. 劉峻呈、**張家銘**，2020，「基於磁流變阻尼器之新型半主動控制方法」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
10. 張庭維、許舜翔、**張家銘**，2020，「利用機器學習影像辨識技術於隧道裂縫偵測」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
11. 莊智豪、**張家銘**，2020，「結合隨機遞減法與頻率域分解法之結構常時模態分析」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
12. 周肇昱、**張家銘**，2020，「基於相機影像捕捉之模態動力特性萃取」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
13. 黃謝恭、**張家銘**、趙品鈞，2020，「以生成對抗網路製造人造地震」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
14. 葉芳耀、楊耀畬、李柏翰、蕭勝元、**張家銘**、張國鎮，2020，「桁架式複合材料組合結構應用於救災用輕便橋之研究」，第十五屆結構工程及第五屆地震工程研討會，臺南，臺灣，2-4 Sep.
15. 謝承穎、周肇昱、**張家銘**，2019，「結合影像處理、電腦視覺與人工智慧之混凝土結構表面裂縫識別研發」，2019 電子計算機於土木水利工程應用研討會，臺北，臺灣，9 Sep.
16. 周肇昱、**張家銘**，2018，「基於時頻域子空間識別法之自動化萃取動態特性」，第十四屆結構工程及第四屆地震工程研討會，臺中，臺灣，6-8 Nov.
17. 曹文懷、**張家銘**，2018，「適用高度非線性動力系統之數值積分方法」，第十四屆結構工程及第四屆地震工程研討會，臺中，臺灣，6-8 Nov.
18. 許庭維、**張家銘**，2018，「幾何非線性設備物隔震系統之動力特性分析」，第十四屆結構工程及第四屆地震工程研討會，臺中，臺灣，6-8 Nov.

19. 江和峰、**張家銘**、周肇昱，2018，「基於第一模態振形之結構損傷診斷方法比較」，第十四屆結構工程及第四屆地震工程研討會，臺中，臺灣，6-8 Nov.
20. 許安綸、何元鈞、**張家銘**，2018，「非線性軌道式調諧質量阻尼器動力行為之研究」，第十四屆結構工程及第四屆地震工程研討會，臺中，臺灣，6-8 Nov.
21. **張家銘**、周肇昱，2018，「基於卡式濾波器組之結構損傷識別」，第十九屆非破壞檢測技術研討會，臺北，臺灣，27-28 Sep.
22. **張家銘**、周肇昱、楊青景，2018，「基於影像分析與電腦視覺之結構模態萃取」，第十九屆非破壞檢測技術研討會，臺北，臺灣，27-28 Sep.
23. 江和峰、**張家銘**，2018，「利用第一模態振形進形結構損傷診斷」，第十九屆非破壞檢測技術研討會，臺北，臺灣，27-28 Sep.
24. **張家銘**、謝承穎、周肇昱，2018，「裂縫辨識基於深度學習與影像量測」，第十九屆非破壞檢測技術研討會，臺北，臺灣，27-28 Sep.

專利 (Patents)

類別	專利名稱	國別	專利號碼	發明人	專利權人	專利 核准日	科技部 計畫編號
發明專利	起重機負載之減盪系統	中華民國	I671256	康仕仲、**張家銘**、楊耀畬、陳鵬元	祐彬營造股份有限公司	201909~203808	
發明專利	Geometrically Nonlinear Vibration Isolation System	美國	US 10,655,704	**Chia-Ming Chang**, Shieh-Kung Huang, Cho-Yen Yang	國震中心	202005~203901	
發明專利	Vertical Vibration Isolation System	美國	US 10,670,109	**Chia-Ming Chang**, Cho-Yen Yang, Shieh-Kung Huang, Chen-Hao Hsu	國震中心	202006~203902	
發明專利	幾何非線性隔振系統	中華民國	I706095	**張家銘**、黃謝恭、楊卓諺	國震中心	202010~203808	
發明專利	垂直向隔振系統	中華民國	I733050	**張家銘**、楊卓諺、黃謝恭、徐振豪	國震中心	202107~203808	
發明專利	幾何非線性隔振系統	中國	ZL 2018 1 11711718	**張家銘**、黃謝恭、楊卓諺	國震中心	202106~203810	
發明專利	垂直向隔振系統	中國	ZL 2018 1 1186702.8	**張家銘**、楊卓諺、黃謝恭、徐振豪	國震中心	202102~203810	
發明專利	接頭結構以及接頭組裝方法	中華民國	I739649	楊耀畬、**張家銘**、葉芳耀、康仕仲	國震中心	202109~204011	

技術移轉 (Technology Transfers)

技術名稱	專利名稱	授權單位	被授權單位	簽約日期	權利金,衍生利益金等	科技部計畫編號
應用加速度資訊進行建築震後快速安全診斷技術	無	國立臺灣大學	中保防災科技股份有限公司	201904~202403	授權金為350,000元	
道岔裂紋缺陷成長趨勢分析工作(先期技轉)	無	國立臺灣大學	臺北大眾捷運股份有限公司	20210325~20220320	授權金為241,304元	

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Steel Structure, Earthquake Resistance Design, Structural Collapse Simulation, Seismic Loss Assessment

期刊論文(Journal Papers)

1. Omar A. Sediek; Tung-Yu Wu; Ting-Hao Chang; Jason McCormick; Sherif El-Tawil (2021, Jun). Measurement, Characterization and Modeling of Initial Geometric Imperfections in Wide-Flange Steel Members Subjected to Combined Axial and Cyclic Lateral Loading. *Journal of Structural Engineering*, 147(9). 本人為通訊作者.
2. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2020, Jun). Influence of Seismic Design Evolution on the Seismic Collapse Behavior and Losses of Prototype Steel Buildings with Moment-Resisting Frames. *Journal of Structural Engineering*, 146(9). SCI. 本人為第一作者、通訊作者.
3. Omar A. Sediek; Tung-Yu Wu; Jason McCormick; Sherif El-Tawil (2020, Mar). Collapse Behavior of Hollow Structural Section Columns under Combined Axial and Lateral Loading. *Journal of Structural Engineering*, 146(6). SCI.
4. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2019, Oct). Effect of cyclic flange local buckling on the capacity of steel members. *Engineering Structures*, 200. SCI.本人為第一作者、通訊作者.
5. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2018, Jun). Seismic Collapse Response of Steel Moment Frames with Deep Columns. *Journal of Structural Engineering*, 144(9). SCI. 本人為第一作者、通訊作者.
6. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2018, Jan). Highly Ductile Limits for Deep Steel Columns. *Journal of Structural Engineering*, 144(4). SCI. 本人為第一作者、通訊作者.
7. Julie Fogarty; Tung-Yu Wu; Sherif El-Tawil (2017, Jul). Collapse Response and Design of Deep Steel Columns Subjected to Lateral Displacement. *Journal of Structural Engineering*, 143(9). SCI.

研討會論文(Conference Papers)

1. Tung-Yu Wu (2020, Sep). Collapse Behavior of Steel Buildings with Deep Columns under Horizontal and Vertical Ground Motions. 17th World Conf. on Earthquake Engineering, Sendai, Japan. 本人為第一作者、通訊作者.
2. Omar A. Sediek; Tung-Yu Wu; Jason McCormick; Sherif El-Tawil (2019, Sep). Seismic behavior of HSS columns under lateral loading. International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, Taipei, Taiwan.

3. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2019, Sep). Seismic capacity of deep steel columns and their influence on the collapse response of steel special moment frames. International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, Taipei, Taiwan. 本人為第一作者、通訊作者.
4. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2019, Sep). Influence of seismic design code evolution on the seismic losses and resilience of steel buildings. International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, Taipei, Taiwan. 本人為第一作者、通訊作者.
5. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2018, Jun). Ensuring highly ductile behavior for deep steel columns. 11th National Conf. on Earthquake Engineering, Oakland, CA, USA. 本人為第一作者、通訊作者.
6. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2018, Apr). Seismic collapse response of a four-story steel special moment frame with deep columns. Structures congress 2018, Fort Worth, TX, USA. 本人為第一作者、通訊作者.
7. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2018, Apr). Experimental study of cyclic flange local buckling. Structures congress 2018, Fort Worth, TX, USA. 本人為第一作者、通訊作者.
8. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2017, Apr). Effect of drift loading history on the collapse capacity of deep steel columns. Structures congress 2017, Denver, CO, USA. 本人為第一作者、通訊作者.
9. Tung-Yu Wu; Sherif El-Tawil; Jason McCormick (2017, Jan). Behavior of steel moment frames with deep column sections under seismic loading. 16th World Conf. on Earthquake Engineering, Santiago, Chile. 本人為第一作者、通訊作者.
10. Feng-Hsuan Chang; Tung-Yu Wu（2020 年 11 月）。Evolution of Seismic Resilience of Steel Buildings in Taipei Basin。Conference on Theoretical and Applied Mechanics, CTAM 2020，Yilan, Taiwan。科技部：109-2222-E-002-001-MY2。本人為通訊作者。
11. Ting-Hao Chang; Tung-Yu Wu（2020 年 09 月）。Influence of geometric initial imperfection on seismic collapse capacity of steel special moment frames with deep columns。15th National Conf. on Structural Engineering and 5th National Conf. on Earthquake Engineering，Tainan, Taiwan。本人為通訊作者。

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Reinforced Concrete, Seismic design, evaluation, and retrofit, Large-scale experiments

JOURNAL PAPERS

1. Suzuki, T., **Puranam, A**., Elwood, K.J., Lee, H-J, Hsiao, F-P., Hwang, S-J. (2021) "Shake-Table Tests of Seven-story Reinforced Concrete Structures with Torsional Irregularities: Test program and datasets," EERI Data Paper. V. 37 No. 4, page(s): 2946-2970
2. Corney, S. R., **Puranam, A.**, Elwood, K. J., Henry, R.S., Bull, D., (2021) "Seismic Performance of Precast Hollow-core Floors: Part 1-Experimental Data". American Concrete Institute Structural Journal, V. 118, No. 5. Pp.49-63.
3. **Puranam, A.**, Corney, S. R., Elwood, K. J., Henry, R.S., Bull, D., (2021) "Seismic Performance of Precast Hollow-core Floors: Part 2-Assessment of Existing Buildings". American Concrete Institute Structural Journal, V. 118, No. 5. Pp.65-77.
4. Lund, A., **Puranam, A.**, Whelchel, R., Pujol, S. (2020) "Serviceability of Elements with High-Strength Steel Reinforcement," Concrete International, V. 42, No. 9.
5. Alcocer, S., Behrouzi, A., Brena, S., Elwood, KJ., Irfanoglu, A., Kreger, M., Lequesne, R., Mosqueda, G., Pujol, S., **Puranam, A**., Rodriguez, M., Shah, P., Stavridis, A., and Wood, R. (2020)., " Observations about the Seismic Response of RC Buildings in Mexico City", EERI Spectra.
6. **Puranam, A.**, Filippova, O., Pastor-Paz, J., Stephens, M., Elwood, K.J., Ismail, N., Noy, I., and Opabola, T. (2019) " A Snapshot of the Building Inventory in Wellington" Bulletin of New Zealand Society of Earthquake Engineering, Vol. 52, No. 4.
7. **Puranam, A.**, Pujol, S. (2019) "Reinforcement Limits in RC Elements with High-Strength Steel," ACI Structural Journal, V. 116, No. 5.
8. **Puranam, A.**, Pujol, S. (2019) "Investigation of Corner Column Axial Failure in a 14-Story RC Building," American Concrete Institute Structural Journal, V. 116, No. 1
9. **Puranam, A.**, Irfanoglu, A., Pujol, S., Chiou, T.C., Hwang, S.J. (2018) "Evaluation of Seismic Vulnerability Indices using data from the Taiwan Earthquake of 6 February 2016," Bulletin of Earthquake Engineering. DOI: 10.1007/s10518-018-0519-1
10. **Puranam, A.**, Wang, Y., Pujol, S. (2018) "Estimating Drift Capacity of Reinforced Concrete Structural Walls," American Concrete Institute Structural Journal, V. 115, No. 6.
11. Catlin, A.C., HewaNadungodage, C., Pujol, S., Laughery, L., Sim, C., **Puranam, A.**, Bejarno, A. (2018) " A Cyberplatform for Sharing Scientific and Research Data at DataCenterHub," Computing in Science and Engineering, Vol. 20, No.3, pp. 49-70. doi:10.1109/MCSE.2017.3301213

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1. Yang, Y-H., Puranam, A., Pujol, S. (2021) “Seismic Drift Demands in Concrete Structures Reinforced with High-Strength Steel”, 17th World Conference on Earthquake Engineering, Sendai, Japan.
2. Suzuki, T., **Puranam, A.**, Elwood, KJ., Lee, H-J., Hsiao, F-P., Tsai, R-J., Hwang, S-J. (2019), “Seismic response of a half-scale seven-story reinforced concrete structure with torsional and damage irregularities”, International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake.
3. **Puranam, A.**, Bueker, F., and Elwood, KJ. (2019). “Assessment of Reinforced Concrete Buildings with Hollow-core Floors”. Pacific Conference on Earthquake Engineering, Paper 0148, Auckland, NZ.
4. Pujol, S., **Puranam, A.** (2017) “Recommended Thicknesses for Structural Walls to Resist Earthquake Demands in Colombia,” 8th National Congress of Seismic Engineering, May, Barranquilla, Colombia.
5. **Puranam, A.**, Pujol, S. (2017) “Minimum Flexural Reinforcement in Reinforced Concrete Walls,” Proceedings, 16th World Conference on Earthquake Engineering, January 9-14, 2017, Santiago, Chile.

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Hydroinformatics, Artificial Intelligence, Stochastic Hydrology and Hydraulics, Rainfall and Flood Forecasting, Computational Hydraulics

期刊論文 (Journal Papers)

1. Lin GF*, Chang MJ, Wu JT, 2017, A hybrid statistical downscaling method based on the classification of rainfall patterns, Water Resources Management, Vol. 31, Issue 1, pp. 377-401. (SCI)
2. Wu MC, Lin GF, 2017, The very short-term rainfall forecasting for a mountainous watershed by means of an ensemble numerical weather prediction system in Taiwan, Journal of Hydrology, Vol. 546, pp. 60-70. (SCI)
3. Jhong BC, Wang JH, Lin GF*, 2017, An integrated two-stage support vector machine approach to forecast inundation maps during typhoons, Journal of Hydrology, Vol. 547, pp. 236-252. (SCI)
4. Lin GF*, Chang MJ, Huang YC, Ho JY, 2017, Assessment of susceptibility to rainfall-induced landslides using improved self-organizing linear output map, support vector machine, and logistic regression, Engineering Geology. Vol. 224, 62–74. (SCI)
5. Lin GF*, Chang MJ, Wang CF, 2017, A novel spatiotemporal statistical downscaling method for hourly rainfall, Water Resources Management. Vol. 31, Issue 11, pp. 3465-3489 (SCI)
7. Wang JH, Lin GF*, Jhong BC, 2018, Effective real-time forecasting of inundation maps for early warning systems during typhoons, MATEC Web of Conferences, Vol. 147, Article No. 03014. (EI)
8. Chang MJ, Chang HK, Chen YC, Lin GF*, Chen PA, Lai JS, Tan YC, 2018, A support vector machine forecasting model for typhoon flood inundation mapping and early flood warning systems, Water, Volume 10, Issue 12, 1734. (SCI)
9. Lee KT, Ho JY, Kao HM, Lin GF*, Yang TH, 2019, Using ensemble precipitation forecasts and a rainfall-runoff model for hourly reservoir inflow forecasting during typhoon periods, Journal of Hydro-environment Research, Vol. 22, pp. 29-37 (SCI)
10. Wang HW, Lin GF, Tfwala SS, Hong JH, 2019, Filtering continuous river surface velocity radar data, Water, Volume 11, Issue 4, 764. (SCI)
11. Wang JH, Lin GF*, Chang MJ, Huang IH, Chen YR, 2019, Real-time water-level forecasting using dilated causal convolutional neural networks, Water Resources Management, Vol. 33, Issue 11, pp. 3759–3780. (SCI)

12. Lee FZ, Lai JS, Tang YC, Chang MJ, Chen PA, Lin GF, 2019, Turbidity Current Plunge Mechanism Analysis and Simulation System Application, Taiwan Water Conservancy, Vol. 67, No. 4, pp. 1-15. (EI)
13. Chang MJ, Lin GF*, Lee FZ, Chen PA, Lai JS, 2020, A real-time forecasting model for turbidity current arrival time in a reservoir. Hydrological Sciences Journal, Vol. 65, No. 6, pp. 1022-1035. (SCI)
14. Chang MJ, Lin GF*, Lee FZ, Wang YC, Chen PA, Wu MC, Lai JS, 2020, Outflow sediment concentration forecasting by integrating machine learning approaches and time series analysis in reservoir desilting operation, Stochastic Environmental Research and Risk Assessment, Vol. 34, No. 6, pp. 849–866. (SCI)
15. Huang CC, Chang MJ, Lin GF*, Wu MC, Wang PH, 2021, Real-time forecasting of suspended sediment concentrations reservoirs by the optimal integration of multiple machine learning techniques, Journal of Hydrology: Regional Studies, Vol. 34, Article 100804. (SCI)
16. Liang SY, Lin WS, Lin GF, Liu CW, Fan CH, 2021, The effect of porosity change in bentonite caused by decay heat on radionuclide transport through buffer material, Applied Sciences, Vol. 11, Issue 17, Article 7933. (SCI)
17. Huang IH, Chang MJ, Lin GF*, 2021, An optimal integration of multiple machine learning techniques to real-time reservoir inflow forecasting, Stochastic Environmental Research and Risk Assessment. (SCI) https://doi.org/10.1007/s00477-021-02085-y

研討會論文（Conference Papers）

1. Chen CL, Lin GF, 2017, Spatial prediction of flood hazard risk using a novel machine learning approach, The 2017 APEC Typhoon Symposium, Taipei, Taiwan. (Student Poster Competition: First Place, Hydrological Science-Master's Students Division)
2. Kuo SA, Lin GF, Chen YT, Chang MJ, Wu MC, 2017, A novel spatio-temporal statistical downscaling method for hourly temperature, The 2017 APEC Typhoon Symposium, Taipei, Taiwan.
3. Chen CL, Lin GF, 2017, Flood hazard risk analysis using GIS and a novel machine learning algorithm, The 2017 Joint Assembly of Taichung Forum on Smart City & Risk Governance and the Annual Meeting of the Taiwan Chapter of Society for Risk Analysis, Taichung, Taiwan. (Excellent Student Poster Award)
4. Ho JY, Lee KT, Hwang XM, Lin YF, Lin GF, 2017, Simulation and disaster management for suburban landslide under extreme weather conditions, The 14th Annual Meeting of the Asia Oceania Geosciences Society (AOGS 2017), Singapore.
5. Chen PA, Lin GF, Lai JS, Chang MJ, Lee FJ, 2017, Turbidity-current arrival-time forecasting by integrating turbidity-current arrival-time model and machine learning, Proceedings of the 23rd Hydraulic Engineering Conference, Taiwan. (Student Paper Competition: Second Place)
6. Wang JH, Lin GF, Jhong BC, 2017, Effective real-time forecasting of inundation maps for early warning systems during typhoons, The Third International Conference on Sustainable Infrastructure and Built Environment (SIBE-2017), Bandung, Indonesia.
7. Lin GF, 2017, The short-time inundation forecasting during typhoons, The 2017 ACTS Workshop on Extreme Weather Forecast and Water Resources Management, Hanoi, Vietnam. (Keynote Lecture)

8. Chang MJ, Lai JS, Lin GF, Jou BJD and Liang BC, 2017, A data assimilation method based on artificial neural network for hourly rainfall estimation, The Conference of International Conference on Mesoscale Convective Systems and High-Impact Weather in East Asia (ICMCS-XII), Taipei, Taiwan.
9. Lin GF, Wang JH, Chang MJ, 2017, Assessing the impact of climate change on rainfall in the Shihmen Reservoir watershed, Proceedings of the 2017 Symposium of the Agricultural Water Resources Management Projects, Council of Agriculture, Taiwan.
10. Wang YC, Lin GF, Lai JS, Chang MJ, Lee FZ, 2018, Outflow sediment concentration forecasting using integrated machine learning approach and time series analysis, The 2018 APEC Typhoon Symposium, Taipei, Taiwan. (Student Poster Competition: First Place, Hydrological Science-Master's Students Division)
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系.

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Experimental and Computational Fluid Mechanics, River Hydraulics

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Stochastic Sediment Transport, Uncertainty Analysis, Risk and Reliability Analysis, Environmental Hydraulics, Extreme Event Analysis and Predictions

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12. Tsai, C* and Treadwell, H (2019, May). Analysis of trends and variability of toxic concentrations in the Niagara River using the Hilbert-Huang transform method. *Ecological Informatics*, 51, 129-150. (SCI). 本人為第一作者、通訊作者. (SCI)
13. Tsai, C.W.*, Yeh, J.J. and Huang, C-H. (2019, Jan). Development of probabilistic inundation mapping for dam failure induced floods. *Stochastic Environmental Research and Risk Assessment*, 33 (1), 91-110. MOST 104-2268-E-002-011-MY3. 本人為第 一作者、通訊作者. (SCI)
14. C W. Tsai*, S. Y. Hung and J. Oh (2018, Jul). A stochastic framework for modeling random-sized batch arrivals of sediment particles into open channel flows. *Stochastic Environmental Research and Risk Assessment*, https://doi.org/10.1007/s00477-018-1529-x. MOST 104-2628-E-002-011-MY3. 本人為第一作者、通訊作者. (SCI)
15. C. W. Tsai*, T-G Yeh, Y-R Hsiao (2018, Jun). Evaluation of hydrologic and meteorological impacts on dengue fever incidences in southern Taiwan using time-frequency analysis methods. *Ecological informatics*, 46, 166-178. MOST 104-2628-E-002-011-MY3. 本人為第一作者、通訊作者. (SCI)
16. Oh. J. S. and Tsai, C. W.* (2018, Feb). A Stochastic multivariate framework for modeling movement of discrete particles in open channel flows. *Stochastic Environmental Research and Risk Assessment* , 32 (2), 385-399. MOST 104- 2628-E-002-011-MY3. 本人為通訊作者. (SCI)
17. Oh. J. S.*, Jung-Il Choi, Choi, S-U, and Tsai, C. W. (2017, May). Physically Based Probabilistic Analysis of Sediment Deposition in Open Channel Flow. *ASCE Journal of Hydraulic Engineering*, 143 (5), 04016106. (SCI)

研討會論文 Conference Publications and Presentations

1. Hung, S. Y., & Tsai, C. W. (2021). "Stochastic Sediment Transport with Memories" Proceedings, 2021 World Water and Environmental Resources Virtual Congress, Jun 07-12, Online.

2. Tsai, C. and Wu, K.-T. (2021). “Characterization of Geometrical and Temporal Properties of Large-scale Motions in Turbulent Flows”, EGU General Assembly 2021, online, 19 – 30 Apr 2021, EGU21-14221, https://doi.org/10.5194/egusphere-egu21-14221, 2021.
3. Liu, W.-J. and Tsai, C. W. (2021). “Incorporating Backward-forward Stochastic Particle Tracking Model into the EFDC model for Probable Sedimentation Source identification in Typhoon events”, EGU General Assembly 2021, online, 19 – 30 Apr 2021, EGU21-11346, https://doi.org/10.5194/egusphere-egu21-11346, 2021.
4. Huang, Y.-Y. and Tsai, C. W. (2021). “Modeling of Lagrangian particles in turbulence boundary layer considering attached eddies: particle trajectories and concentration profiles”, EGU General Assembly 2021, online, 19 – 30 Apr 2021, EGU21-9960, https://doi.org/10.5194/egusphere-egu21-9960, 2021.
5. Tang, C.-H. and Tsai, C. W. (2021). “Spatiotemporal Trend and Variability of Precipitation in Taiwan Based on Multi-dimensional Ensemble Empirical Mode Decomposition (MEEMD)”, EGU General Assembly 2021, online, 19 – 30 Apr 2021, EGU21-10609, https://doi.org/10.5194/egusphere-egu21-10609, 2021.
6. Hester, E.T., D.T. Scott, D.L. Azinheira, K.E. Brooks, M. Calfe, C. Guth, B. Hammond, A.Y. Lin, and C.W. Tsai. (2020). “Can stream and river restoration solve the excess nitrogen problem?” River Flow 2020, Delft, Netherlands. July 8, 2020.
7. Tsai, C. W., Wu, K-T, and Huang, C-H. (2020). ” Beyond Normality: Estimation of Near- Bed Sediment Concentrations Accounting for Asymmetric Distribution and Spatial Influence of Turbulence Coherent Structures” 2020 JpGU-AGU Joint Meeting, Abstract C000762, May 24-28, 2020, Chiba, Japan.
8. Tsai, C.W. and Wu, K.-T. (2020). “Beyond Normality: Estimation of Near-Bed Sediment Concentrations Accounting for Asymmetric Distribution and Spatial Influence of Turbulence Coherent Structures” EGU General Assembly, May 4-8, 2020, Abstract EGU2020-21416, Vienna, Austria.
9. Tsai, C.W. and Huang, C.H. (2020). “Improved Point Estimates of Probabilistic Moments for Non-Gaussian Multivariate Environmental Modeling and Uncertainty Analysis” the AMS 100th American Meteorological Society Annual Meeting, January 12-16, 2020, Boston, M.A., Abstract ID: 370283
10. Tsai, C.W. and Huang, S.H. (2019) “On the Memory Effect of Sediment Particles in Turbulence Structures” In: AGU Fall Meeting; 2019 December 9-13; San Francisco, CA. Abstract ID: 511955.
11. Lin, M.L., and Tsai, C.W. (2019) “Evolution of Air Temperature and Multiscale Characterization of Greenhouse Gases in Taiwan based on Multi-dimensional Ensemble Empirical Mode Decomposition and Noise-assisted Multivariate Empirical Mode Decomposition”. In: AGU Fall Meeting; 2019 December 9-13; San Francisco, CA. Abstract ID: 541291.
12. Wu, K.T., and Tsai, C. W. (2019) “Improvement of Suspended Sediment Transport Analysis Considering the Spatial Influence of Turbulence Ejection”. In: AGU Fall Meeting; 2019 December 9-13; San Francisco, CA. Abstract ID: 540456.

13. Chiang, C.H., and Tsai, C.W. (2019) “Using EFDC hydrodynamic and water quality model for eutrophication prediction in Xindian River in Taiwan”. In: AGU Fall Meeting; 2019 December 9-13; San Francisco, CA. Abstract ID: 500822.
14. Hung, S. Y. & Tsai, C. W. (2019) “Stochastic Sediment Transport with Memories”, The Thirty-Second KKHTCNN Symposium on Civil Engineering, October 24-26, 2019, Daejeon, Korea
15. Hung, S. Y. & Tsai, C. W. (2019) “Stochastic Sediment Transport In Time Persistent Flow Events”, The Thirty-Eighth IAHR World Congress, September 1-6, 2019, Panama City, Panama
16. Tsai, C. and Hung, S.H. (2019). “On the Memory Effect of Sediment Particle Movement in Turbulent Flows by A Random Time Interval Brownian Motion (RTIB) Model”, 41st Stochastic Processes Conference, July 8-12, Evanston, IL.
17. Tsai, C. and Huang, S.H. (2019). “Development of A Stochastic Jump Diffusion particle Tracking Model for Sediment Transport”, Proceedings, 2019 World Water and Environmental Resources Congress, May 19-23, Pittsburg, PA.
18. Huang, C.H. and Tsai, C. (2019). “Uncertainty Analysis for Geological Drilling Data and development of Probabilistic Soil Liquefaction Potential Mapping”, Proceedings, 2019 World Water and Environmental Resources Congress, May 19-23, Pittsburg, PA.
19. Ahammed, F., Hewa, G. A., Argue, J. R. & Tsai, C. W. (2019). “ICSM – a new stormwater management strategy to support the structural growth of developing countries in Asia”. Proceedings of the World Environmental and Water Resources Congress, The American Society of Civil Engineers, pp: 80 - 92.
20. Tsai, C. and Hsiao, Y.-R. (2019). “Characterization of Air Quality and Hydro-Meteorological Factors based on Noise-assisted Empirical Mode Decomposition (NAMEMD) and Time-dependent Intrinsic Correlation (TDIC)”, EGU General Assembly, Abstract 2019-11791, Vienna, Austria.
21. Huang, C. H. and Tsai, C (2019). “Uncertainty Analysis for Geological Drilling Data and Development of Probabilistic Soil Liquefaction Potential Mapping”, EGU General Assembly, Abstract 2019-7559, Vienna, Austria.
22. Hung, S. Y. & Tsai, C. W. (2018) “Stochastic Sediment Transport: Incorporation of Time-step Independent Resuspension Mechanism into Stochastic Diffusion Particle Tracking Model.”, The Thirty-First KKHTCNN Symposium on Civil Engineering, November 22-24, 2018, Kyoto, Japan
23. S. M. Mousavi, C. W. Tsai (2018). “Can a Stochastic Particle Tracking Model (PTM) Predict the Trajectory of a Fluid Particle in Water Waves?”, The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24.
24. Mousavi, S. M. and Tsai, C. W. (2018). “Localized Radial Basis Functions (LRBF) solution of the two-dimensional Fokker-Plank equation” 15th EGU General Assembly, Abstract 2018-11557, Vienna, Austria, April 9-13.
25. Tsai, C. W. and Huang, C. H. (2018). “Assessment of Sediment Concentrations Accounting for Turbulence and Random Particle Alignment” 15th EGU General Assembly, Abstract 2018-16381, Vienna, Austria, April 9-13.

26. Hung, S. Y. and Tsai, C. W. (2018). “Anomalous Diffusions of Suspended Sediment Transport by Two-particle Stochastic Diffusion Particle Tracking Model” 15th EGU General Assembly, Abstract 2018-8684, Vienna, Austria, April 9-13.
27. Tsai, C. W., Yeh, J. J. and Hung, S. Y. (2017). “Development of Probabilistic Flood Inundation Mapping for Flooding Induced by Dam Failure”, Abstract H31A-1490 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
28. Huang, S. S. and Tsai, C. W. (2017). “The Influence of Turbulent Coherent Structure on Suspended Sediment Transport”, Abstract EP13B-1611 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
29. Kao, D. and Tsai, C. W. (2017). “Uncertainty quantification of water quality in Xindian Creek in Taiwan”, Abstract H31H-1602 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
30. Hsiao, Y. R. and Tsai, C. W. (2017).” Multiscale Characterization of PM2.5 in Southern Taiwan based on Noise-assisted Multivariate Empirical Mode Decomposition and Time-dependent Intrinsic Correlation”, Abstract A41D-2312 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
31. Hung, S. Y., Wu, T.-H. and Tsai, C. (2017). “Normal and anomalous diffusion in suspended sediment particles in open channel flow”, Proceedings, 2017 World Water and Environmental Resources Congress, May 22-25, Sacramento, CA.
32. Huang, C.H., and Tsai, C (2017). “Estimation of near-bed sediment concentrations by the Langevin equation using an improved statistical distribution of particle displacement” Proceedings, 2017 World Water and Environmental Resources Congress, May 22-25, Sacramento, CA.
33. Tsai, C. W. and Yeh, T-G (2017). “Evaluation of Hydrologic and Meteorological Impacts on Dengue FeverIncidences in Southern Taiwan using Time- Frequency Method” 14th EGU General Assembly, Abstract 2017-19159, Vienna, Austria, April 24-28.

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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.

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。

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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(Journal papers)

1. Liang, C. Y., Wang, Y. H., **You, G. J. Y***., Chen, P. C., & Lo, E. (2021). Evaluating the Cost of Failure Risk: A Case Study of the Kang-Wei-Kou Stream Diversion Project. *Water*, 13(20), 2881.
2. Chu, C.C., **You, G. J. Y*** (2021).Analytical one-dimensional conceptual model of channel evolution after dam removal based on diffusion framework, *Water Resources Research*, 57(5), e2020WR028306.
3. Su, H. T., **You, G. J. Y***., & Chu, C. C. (2020). Using two-dimensional modeling to evaluate strategies of sediment reduction and evacuation for Nanshi river under Guishan dam operations. *River Research and Applications, 36(10), 2063-2077.*
4. Huang, C. L., Hsu, N. S., Yao, C. H., & **You, G. J. Y**. (2020). Identification of hydrogeological evolution using hydrogeology-seismology analysis of groundwater head fluctuation related to the 1999 MW= 7.5 Chi-Chi earthquake. *Progress in Earth and Planetary Science*, 7(1), 1-28.
5. Wang, Y. H, Chu, C. C., **You, G. J. Y.*,** Gupta, H.Y & Chiu, P. H. (2020) Evaluating Uncertainty in Fluvial Geomorphic Response to Dam Removal. *Journal of Hydrologic Engineering* 25(6)
6. Wu, P. Y., **You, G. J. Y***., & Chan, M. H. (2020). Drought Analysis Framework based on Copula and Poisson Process with Nonstationarity. *Journal of Hydrology*, 125022.
7. Huang, C. L., Hsu, N. S., Hsu, F. J., **You, G. J. Y**., & Yao, C. H. (2020). Symmetrical Rank-Three Vectorized Loading Scores Quasi-Newton for Identification of Hydrogeological Parameters and Spatiotemporal Recharges. *Water*, 12(4), 995.
8. 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.
9. Wang, Y. H., Hsu, Y. C., You, G., Yen, C. L., & Wang, C. M. (2018). Flood Inundation Assessment Considering Hydrologic Conditions and Functionalities of Hydraulic Facilities. *Water*, *10*(12), 1879.
10. 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.

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Ecohydraulics and Eco-DRR, River and Floodplain Hydrodynamics, Development of Ecohydrology Models, Wetlands Engineering and River Restoration

期刊論文 (Journal Papers)

1. **Shih, S.S.***, Cheng, T.Y. (2022, Feb). Geomorphological dynamics of tidal channels and flats in mangrove swamps. *Estuarine, Coastal and Shelf Science*, 265, 107704: 1-13.. (SCI, 21/110, Marine & Freshwater Biology). MOST 106-2621-M-002-004-MY3.
2. **Shih, S.S.***, Hsu, Y.W. (2021, Dec). Unit hydrographs for estimating surface runoff and refining the water budget model of a mountain wetland. *Ecological Engineering*, 173, 106435.. (SCI). MOST 110-2621-M-002-009.
3. **Shih, S.S.***, Wang, H.C. (2021, Dec). Spatiotemporal characteristics of hydraulic performance and contaminant transport in treatment wetlands. *Journal of Contaminant Hydrology*, 243, 103891. (SCI). MOST 109-2622-E-002-026.
4. Kuo, P.H., **Shih, S.S**.*, Otte, M.L. (2021, Oct). Restoration recommendations for mitigating habitat fragmentation of a river corridor. *Journal of Environmental Management*, 296, 113197.. (SCI, 34/274=13%, Environmental Science). MOST 106-2625-M-002-011.
5. **Shih, S.S.***, Chen, P.C. (2021, Jul). Identifying tree characteristics to determine the blocking effects of water conveyance for natural flood management in urban rivers. *Journal of Flood Risk Management*, e12742. (SCI, 26/90, water resources). MOST 106-2625-M-002-011.
6. **Shih, S.S.**, Ding, T.S., Chen, C.P., Huang, S.C., Hsieh, H.L.* (2021, Feb). Management recommendations based on physical forces driving land-covers and habitat preferences of polychaete and bird assemblages for a mangrove-vegetated estuary. *Wetlands*, 41, 19. (SCI, 89/159, Ecology). MOST 103-2621-M-002-020.
7. **Shih, S.S.***, Wang, H.C. (2020, Jun). Flow Uniformity Metrics for Quantifying the Hydraulic Performance of Constructed Wetlands. *Ecological Engineering*, 155, 105492. (SCI, 43/165, Ecology). MOST 103-2621-M-002-020.
8. **Shih, S.S.*** (2020, Apr). Spatial habitat suitability models of mangroves with *Kandelia obovata*. *Forests*, 11(4):477. (SCI, 17/67, Forestry). MOST 104-2621-M-002-022-MY2.
9. **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.
10. 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.

11. 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). http://www.mdpi.com/2073-4441/9/7/519.
12. **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.
13. Lee, F.Z., G.W. Hwang, J.S. Lai, **S.S. Shih**, S.Y. Yang, C.J. Huang（2019 年 12 月）。Application of composite investigation technique on flow measurement and topography analysis of tidal effect wetland。Journal of the Chinese Institute of Civil and Hydraulic Engineering，31(6): 545-552。（EI）。
14. Hwang, G.W., F.J Li, W.S. Yu, J.W. Chen, H.M. Yen, **S.S. Shih**, W.D. Lin, J.W. Lin（2017 年 08 月）。Proposal and action plan for the management and maintenance of the public sewerage。Journal of Taiwan Agricultural Engineering，63(2): 12-21。（EI）。
15. Hu, T.J., J.S. Lai, **S.S. Shih**, J.Y. Han（2017 年 06 月）。Check dam implementation and Fishways Installation in the Shi-Wen River。Journal of Taiwan Agricultural Engineering，63(2): 78-93。（EI）。

研討會論文 (Conference Papers)

1. **Shih, S.S.** *, 2021, Stormwater Detention and Ecological Conservation of Urban Ponds and Wetlands, 7th Cross-Strait Forum on Sustainable Urban Development.
2. 黃中澤、施上粟*, 2021, 關渡平原紅樹林擴散潛勢及洪災風險與復育權衡關係探討，第十一屆臺灣濕地生態系研討會，國立台灣師範大學，台北市。
3. 李冠穎、施上粟*, 2021, 夢幻湖生態保護區地下水流向分析與水位控管策略，第十一屆臺灣濕地生態系研討會，國立台灣師範大學，台北市。
4. 蘇雨乾、施上粟*, 2021, 通洪阻礙物模式應用於河川高灘地植生管理—以大漢溪人工濕地爲例，第十一屆臺灣濕地生態系研討會，國立台灣師範大學，台北市。
5. 徐偉銓、施上粟*, 2021, 應用遙測影像判釋分析潮間帶濕地水線位置變化研究，2021台灣地理資訊學會年會暨學術研討會，逢甲大學，台中市。
6. Huang, Z.Z., **S.S. Shih*** (2020, Sep). Tradeoffs Between Flood Protection and Ecological Conservation on Mangrove Restoration and Dyke Modification in Guandu Floodplain, Northern Taiwan. 2020 TWS Annual Meeting, Taipei City.
7. **Shih, S.S.** (2019, Aug). On developing an evolution model for simulating geomorphic dynamics of tidal waterways and mudflats. Joint Meeting for SWS Asia Chapter & Korean Wetlands Society, Korea. MOST 106-2621-M-002-004-MY3.
8. Cheng, T.Y. **S.S. Shih** (2019, Jul). A model for geomorphological changes of tidal creeks and mudflat. AOGS2019, Singapore. MOST 106-2621-M-002-004-MY3.
9. Hsu, W.B., **S.S. Shih** (2019, Jul). Investigations on the diffusion characteristics of Kandelia mangrove seedling in northern Taiwan. AOGS2019, Singapore. MOST 106-2621-M-002-004-MY3.
10. Hsu, Y.W., **S.S. Shih** (2019, Jul). Hydrological investigation and water budget model

development of a mountain wetland in northern Taiwan. AOGS2019, Singapore.

11. Liu, C.H., **S.S. Shih** (2019, Jul). Flow Regime Analysis Using Wavelet Methods Considering Weir Effects. AOGS2019, Singapore . MOST 106-2625-M-002-011.
12. Wang, H.C., **S.S. Shih** (2019, Jul). Identification of dead zone in constructed wetlands for evaluating the related hydraulic performance. AOGS2019, Singapore.
13. **Shih, S.S.**, C.P Chen, S.C. Huang, G.W. Hwang, H.L. Hsieh (2018, Aug). Habitat uses of macrobenthos and aves revealing landscape-based management in a mangrove ecosystem in northern Taiwan. SWS2018 (China and Asia Chapters), Changchun, China.
14. **Shih, S.S.** (2018, Jun). Water Budget Investigation of a Mountain Lake for Preserving the Endemic Plant in Taiwan. AOGS 2018, Hawaii, USA.
15. Chen, C.P., H.L. Hsieh, **S.S. Shih**, H.J. Lin (2017, Jun). Building climate resilience through wise use of island wetlands: A case study of Taiwan. The Society of Wetland Scientists' 2017 Annual Meeting, San Juan, Puerto Rico. MOST 104-2621-M-002-022-MY2.
16. **Shih, S.S.** (2017, Jun). Habitat model development and application related to rising sea level effects of mangroves. The Society of Wetland Scientists' 2017 Annual Meeting, San Juan, Puerto Rico. MOST 104-2621-M-002-022-MY2.
17. **施上粟**（2019 年 05 月）。水科學與生命科學跨領域研究淺論。第十屆臺灣濕地生態系研討會，國立中山大學，高雄市。
18. **施上粟**、郭品含、吳諮育（2019 年 05 月）。裂隙岩層地下水流對夢幻湖濕地水文系統之影響。第十屆臺灣濕地生態系研討會，國立中山大學，高雄市。
19. 楊勝崎、吳明璋、**施上粟**（2018 年 05 月）。從資料探勘到知識發掘：以大漢溪河床變遷為例。第九屆臺灣濕地生態系研討會，國立台灣大學，台北市。
20. 王泓智、**施上粟**（2018 年 05 月）。人工濕地低流速區對水力表現影響研究。第九屆臺灣濕地生態系研討會，國立台灣大學，台北市。
21. 許耀文、郭品含、**施上粟**（2018 年 05 月）。從濕地水收支平衡模式看濕地水環境管理之機會與挑戰：以夢幻湖濕地及無尾港濕地為例。第九屆臺灣濕地生態系研討會，國立台灣大學，台北市。
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13. **施上粟**，2021，港口水質模式建置及水質管理運用-以基隆港為例，行政院科技部委託研究。
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Water wave mechanics、Coastal engineering、Coastal hazards

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Open channel, Sediment transport, Hydrometric measurement

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Heavy Vehicle Size & Weight, Airport Engineering, Pavement Theory & Design

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(C) 技術報告(Technical reports)

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(D) 專利及標準申請(Patents)

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Railway Transportation System, Railway Operation and Management, Railway Signaling and Control, Railway Capacity Analysis and Planning, Railway Safety

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A. 期刊論文 (Journal Papers)

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B. 研討會論文 (Conference Papers)

a.國外會議論文

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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.

b.國內會議論文

1. Shih, A.-L., Sung, Y.-W., and **Chu, J. C.**, Optimization and simulation of real-time holding and speed control strategies in a bus network, 2020 International Conference and Annual Meeting of Chinese Institute of Transportation, Tainan City, Taiwan, Dec. 3-4, 2020 (in Chinese).
2. 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).

3. 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).
4. 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).
5. 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.
6. 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.
7. 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.
8. 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.
9. **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.
10. 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.
11. **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
12. 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.

C. 專書 (Books)

陳惠國、邱裕鈞、朱致遠，交通工程(二版)，五南圖書出版有限公司，2017 年

陳柏華 教授 Chen, Albert Y.

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

期刊論文(Journal Papers)

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

1. Lee, Y.-C., Chen#, Y.-S., and Chen*, A. Y. (2021) "Lagrangian Dual Decomposition for the Ambulance Relocation and Routing Considering Stochastic Demand with the Truncated Poisson." Transportation Research Part B: Methodological, Accepted. [SCI]
2. Chou#, C.-C., Chiang, W.-C., and Chen*, A. Y. (2021) "Emergency Medical Response in Mass Casualty Incidents Considering the Traffic Congestions in Proximity On-Site and Hospital Delays." Transportation Research Part E: Logistics and Transportation Review, Accepted. [SCI]
3. Hsiao*, T.-C., Chou, L.-T., Chi, K.-H., Young, L.-H., Pan, S.-Y., and Chen, A. Y. (2021) "Chemically and Temporally Resolved Oxidative Potential of Urban Fine Particulate Matter." Environmental Pollution, Accepted. [SCI]
4. Chin, K.-C., Hsieh#, T.-C., Chiang, W.-C., Chien, Y.-C. Sun, J-.T., Lin, H.-Y., Hsieh, M.-J., Yang, C.-W., Chen*, A. Y., Ma*, M. H.-M. (2021) "Early Recognition of a Caller's Emotion to Potentially Accelerate the Dispatcher-assisted Cardiopulmonary Resuscitation Protocol: An Artificial Intelligence Approach." Resuscitation, Accepted. [SCI]
5. Qiu#, W.-X., Han, J.-Y. and Chen*, A. Y. (2021) "Measuring In-building Spatial-temporal Human Distribution through Monocular Image Data Considering Deep Learning Based Image Depth Estimation." ASCE, Journal of Computing in Civil Engineering, Accepted. [SCI]
6. Lin#, T.-H., Chen*, A. Y. and S.-H. Hsieh (2020) "Temporal Image Analytics for Abnormal Construction Activity Identification." Automation in Construction, Accepted (SCI).
7. Chen#, C.-H., Lee, Y.-C., and Chen*, A. Y. (2020) "A Building Information Model Enabled Multiple Traveling Salesman Problem for Building Interior Patrols." Advanced Engineering Informatics, Accepted (SCI).
8. Hsiao, C.-C., Sun, M.-C., Chen, A. Y., and Hsu*, Y.-T. (2020) "Location Problems for Shelter-in-place Deployment: a Case Study of Vertical Evacuation upon Dam-break Floods." International Journal of Disaster Risk Reduction, Accepted. (SCI)
9. Chu*, J. C., Chen, A. Y., and Shih, H.-H. (2020) "Stochastic Programming Model for Integrating Bus Network Design and Dial-a-ride Scheduling." Transportation Letters, Accepted (SCI/SSCI).

10. Chen*, A. Y., Chiu#, Y.-L., Hsieh#, M.-H., Lin#, P.-W., and Angah#, O. (2020) "Conflict Analytics through the Vehicle Safety Space in Mixed Traffic Flows using UAV Image Sequences." Transportation Research Part C: Emerging Technologies (Accepted) (SCI).
11. Angah#, O., and Chen*, A. Y. (2020) "Removal of Occluding Construction Workers in Job Site Image Data using U-Net Based Context Encoders." Automation in Construction, 119, 103332 (SCI).
12. Angah#, O., and Chen*, A. Y. (2020) "Tracking Multiple Construction Workers through Deep Learning and Gradient Based Methods with Re-matching Based on Multi-Object Tracking Accuracy." Automation in Construction, 119, 103308 (SCI).
13. 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*, 106, 102883 (SCI).
14. Yen#, Y., Angah#, O., Huang, Y.N., and Chen*, A.Y. (2018) "Potential Applications of State of the Art Artificial Intelligence in Civil Infrastructure Engineering." Journal of the Chinese Institute of Civil and Hydraulic Engineering, Vol. 45, Issue 5. pp. 51-58.
15. 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. (2018) "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).
16. 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).

研討會論文(Conference Papers)

1. Qiu, W.-X. and Chen, A. Y. (2020) “Image Sensing-based Occupancy Estimation for Demand of Installation of Automated External Defibrillators,” The 24th Symposium on Construction Engineering and Management, Taipei, Taiwan August 5. (**Best Paper Award**.)
2. Qiu, W.-X., Chen, A. Y., and Hsieh, T.-Y. (2020) “Image Sensing-Based In-Building Human Demand Estimation for Installation of Automated External Defibrillators,” International Conference on Civil and Building Engineering Informatics (ICCBEI), Brazil, 2020.
3. 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.
4. 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
5. 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.
6. 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.
7. 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.

8. 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
9. 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
10. 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
11. 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
12. 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)**
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.

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(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. 翁瑎鍥、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).
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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)。

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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、倪英璨 (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。
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、楊璨凱、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。

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Construction Automation & Robotics, Construction Financial Management

Construction Estimating & Scheduling, Project Performance Evaluation

期刊論文(Refereed Papers)

A. SCI 之期刊論文

1. Han-Tang Huang, H. Ping Tserng, Ruei-Yu Hou, Mirosław Skibniewski (2021), " Wireless Sensor Network-Based Monitoring of Bridge Pile Foundations for Detecting Scouring Depth," Journal of Marine Science and Technology, Vol. 29(1), pp.73-88. (SCI)
2. Tserng, Hui-Ping, Cho, I-Cheng, Chen, Chun-Hung, Liu, Yu-Fan, (2021), "Developing a Risk Management Process for Infrastructure Projects Using IDEF0," SUSTAINABILITY, Vol. 13(12). (SCI)
3. Tserng, H. -Ping, Chou, Cheng-Mo, Chang, Yun-Tsui, (2021), "The Key Strategies to Implement Circular Economy in Building Projects-A Case Study of Taiwan," SUSTAINABILITY, Vol. 13(2). (SCI)
4. H. Ping Tserng, Meng-Hsueh Lee, Shang-Hsien Hsieh & Hsiang-Ling Liu, (2016) "The measurement factor of employee participation for Knowledge Management System in engineering consulting firms," Journal of Civil Engineering and Management, 22:2, 154-167.

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2. 周瑞生、歐昱辰、曾惠斌、陳瑞鈴、蔡綽芳、吳昀臻、陳育銘 (2019.06)，都會區私有建築物震損評估與耐震補強成本效益分析-以臺南市幸福及維冠金龍大樓為例，中國土木水利工程學刊，第 OOO 卷，第 O 期，OOO-OOO。(接受刊登)
3. 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

研討會論文(Conference Papers)

1. 萬有為、曾惠斌(2021)，”模矩式設計與營建工程之研究探討 -以偏遠外離島工程為例”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.(獲最佳論文獎)
2. 曾惠斌、林東儒(2021)，”無線監測橋梁掏刷系統之量測流程及數據分析初步研究”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.(獲優等論文獎)
3. 賈啟敏、曾惠斌(2021)，”論工程技術服務契約之定性及時效- 以規劃設計監造契約為對象”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.(獲優等論文獎)
4. Bitokov Timur, Ching-Wei Chen, Hui-Ping Tserng, Xiu-Zhen Huang, (2021), “Critical Success Factors in International Project Finance Transactions,” The 25th Symposium on Construction Engineering and Management / International Conference, July 16, 2021, Taipei, Taiwan. (Outstanding Paper Award)
5. Chia-Ming Liu, Jyun-Ping Jhan, Hui-Ping Tserng, (2021), “Applying Mobile Mapping System for Bridge Deck 3D Reconstruction and Deformation Measurement,” The 25th Symposium on Construction Engineering and Management / International Conference, July 16, 2021, Taipei, Taiwan. (Outstanding Paper Award)
6. 黃進平、曾惠斌 (2021)，”以賽局理論為決策基礎導入營建工程用地侵界風險管理之研究-以統包工程捷運連通道為例”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.
7. 林仁熙、曾惠斌 (2021)，”情事變更原則中「非當時所得預料」於工程領域認定之研究-以實務判決為例”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.
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9. 呂震業、曾惠斌(2021)，”工程顧問公司導入實獲值管理之研究-以執行專案管理(PCM)服務為例”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.
10. Chuang, Kun-Yen, Hui-Ping Tserng, (2021), “Study on the Weather Impact of Construction Schedule of Taiwan Offshore Wind Farm Foundations,” The 25th Symposium on Construction Engineering and Management / International Conference, July 16, 2021, Taipei, Taiwan.
11. 林聰能，曾惠斌(2020)，資訊科技於橋梁工程施工之應用-以三鶯大橋第一期工程為例，第 24 屆營建工程與管理學術研討會，2020 年 8 月 5 日.(獲最佳論文獎)
12. Hung-Yi Chen*, Sy-Jye Guo, Jen-Hao Liu, Hui-Ping Tserng (2020), “Impact of Weather on the schedule of Offshore Wind Farm Turbines Installation in the Taiwan Strait, “2020 International Conference on Innovative Computing and Management Science, July 29-31, 2020, Yilan Taiwan
13. Chi Ming ChiaChyi Herng Teh Wei-Cheng Chen Hui-Ping Tserng (2020), “Workload Evaluation of Elevated Operation in Construction Worksite Using Continuous Heart Rate Monitoring”, 2020 International Conference on Innovative Computing and Management Science, July 29-31, 2020, Yilan Taiwan
14. Cheng-Mo Chou and Hui-Ping Tserng(2020). “The Core Competence of the Project Manager in a Consultant Company via the Transaction Cost Perspective and its Better Learning Path.”, The 24th Symposium on Construction Engineering and Management (SCEM 2020), August 5, 2020, Taipei, Taiwan

15. Cheng-Mo Chou and Hui-Ping Tserng(2020). “Comprehensive Evaluation of Circular Economy in the Implementation of Taiwan's Public Building Construction Engineering.”, The 24th Symposium on Construction Engineering and Management (SCEM 2020), August 5, 2020, Taipei, Taiwan.
16. 鄭其恒，陳維政，曾惠斌, (2019), 以現場連續心率監測評估高架作業環境工作負荷, 第23屆營建工程與管理學術研討會(SCEM2019), 台中.
17. LIN C.N.，CHEN W.T.，CHEN S.H.，TSERNG H.P(2019).「 Construction risk management of shield disassembly in Taiwan metropolitan area- study on the Taiwan Power Company "Daan 345kV bulk power transmission cable lines project "」 ，The 18th Symposium On tunnel and Underground Engineering Academic and Technical， Nov 2 ~3 2019，China，Chongqing.
18. Wei-Cheng Chen, Yu-Chin Lin, and I-Chun Chen, “ Quality Control Factors of CIPP Construction Management for Water Main Rehabilitation”, International No-Dig 2019 37th International Conference and Exhibition, 30th Sep. – 2nd Oct. 2019, Florence, Italy.
19. Wei-Cheng Chen, Hui-Ping Tserng Ph.D. Josh Huang Ph.D.,” A Novel IoT System Application Development of Using Wearable PPG Heartrate Monitor Devices to Improve Safety Management for Shield Tunnel Construction Project”, International No-Dig 2019 37th International Conference and Exhibition, 30th Sep. – 2nd Oct. 2019, Florence, Italy.
20. Wei-Cheng Chen, Hui-Ping Tserng Ph.D., Josh Huang Ph.D, “A Novel Solution of Workload Management Based on Tunnel Worker’s Physical Status Using Wearable PPG Heart-Rate Detection Wristband and BLE IoT System”, 19th International Conference on Construction Applications of Virtual Reality, November13-15, 2019, Bangkok, Thailand.
21. Jing-Xian Lin, Guan-Ren Wang, and Hui-Ping Tserng, ”Development on Monitoring and Alarm System of Scaffold Collapse”, The 32nd KKHTCNN Symposium on Civil Engineering, October 24-26, 2019, Daejeon, Korea.
22. Tsai-Ning Yang, Wei-Cheng Chen and Hui-Ping Tserng, ” The Correlation between Job Stress and Heart Rate Variability of Engineers in Engineering Consultant Companies”, The 32nd KKHTCNN Symposium on Civil Engineering, October 24-26, 2019, Daejeon, Korea.
23. Kun.Yi.Chen, Wei.Cheng.Chen and Hui.Ping.Tserng, ” Application of PPG Wristband on Fatigue and Stress Evaluation of Tunnel Construction Using Heart Rate Variability”, The 32nd KKHTCNN Symposium on Civil Engineering, October 24-26, 2019, Daejeon, Korea.
24. Wei-Cheng Chen, Jia-Sheu Huang and Hui-Ping Tserng, “A Novel Solution of Continuous Monitoring Tunnel Worker’s Physical and Psychological Status Using Wearable PPG Heart-Rate Detection Wristband and BLE IoT System”, 9th International Conference on Construction Applications of Virtual Reality, 13-15 November 2019, Bangkok, Thailand
25. Shiau-Jing Ho, Sheng-Lung Lin and Hui-Ping Tserng, “An Analysis Using Game Theory on the Investment Incentive of PPP Projects,” 34th International Symposium on Automation and Robotics in Construction (ISARC 2017), Taipei, Taiwan, June 28-30, 2017.
26. Will Y. Lin, Pao H. Lin and H. Ping Tserng, “Automating the Generation of Indoor Space Topology for 3D Route Planning Using BIM and 3D-GIS Techniques,” 34th International Symposium on Automation and Robotics in Construction (ISARC 2017), Taipei, Taiwan, June 28-30, 2017.
27. Yen-Ray Chen and H. Ping Tserng,” An Integrated Methodology for Construction BIM & ERP by using UML Tool,” 34th International Symposium on Automation and Robotics in Construction (ISARC 2017), Taipei, Taiwan, June 28-30, 2017.

專利成果

類別	專利名稱	國別	專利號碼	發明人	專利權人	專利期間
B	結構物即時安全監測系統	台灣	M443724	韓仁毓、曾惠斌、林致廷	台灣大學	2012.12.21~2022.7.15
B	變位監測系統	台灣	M443725	林致廷、曾惠斌、韓仁毓	台灣大學	2012.12.21~2022.7.15

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法律經濟學

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

期刊論文 (Journal Papers)

1. Y.H. LIN, T. CHU, C.J. KIM, S.P. HO* (2021, Jul). How do Institutional Pressures Moderate the Impacts of Relational Governance on the Performance of International Projects? An Empirical Assessment (SSCI 5yr IF=9.222). *International Journal of Project Management*, 39(7), 726-737. (SSCI, 33/226, MANAGEMENT). MOST 109-2221-E-002-055. 本人為通訊作者.
2. Liu, T., Liu, G., Chen, P., Chou, N., Ho, S. (2021, Apr). Establishment of a Sustainability Assessment System for Bridges (SCI 5yr IF=3.473). *Sustainability*, 13, 4795. (SCI, 119/270).
3. Pei-Yan Lin, Aswin Lim, Shu-ken Ho, and S. Ping Ho (2018, Nov). Application of the Novel Composite Earth Retaining Structure Method to Urban Excavations: A Constructability Analysis (SCI). *Journal of the Chinese Institute of Engineers*, 41(7), 603-611. (SCI). MOST 103-2221-E-002-236-MY3.
4. Ho, S.P., Hsu, W., and Wang, H.（2021年）。應用區塊鏈技術於提升工程品質自主查驗-科技、優勢與可行性（EI Journal） 。中國土木水利工程學刊，33(7), 565-574。（EI）。本人為第一作者。
5. 荷世平，葉易（2021年）。營造業聯合承攬促進合作之賽局模型與策略設計（EI Journal）。中國土木水利工程學刊，33(7), 555-563。（EI）。本人為第一作者。

研討會論文(Conference Papers)

1. I. Bambo, S. Wen, W. Hsu, and S.P. Ho (2020, Jul). Study of the Promotion Strategies of the Green Buildings in Mozambique: The Consumer Behaviors and the Proposed Certification System and Standards. 第24屆營建工程與管理學術研討會，台灣. MOST 109-2221-E-002-055.
2. Ho, S. P., Nguyen, V. H., and Hsu, W. C. (2019, Aug). Consumer Behaviors in Certified Green Buildings -An Empirical Study. 2019 Clute International Academic Conferences New York, New York City, USA. MOST 106-2221-E-002-038-MY3. 本人為第一作者、通訊作者. Best Presentation Award.
3. Nguyen, V. H. and Ho, S. P. (2019, Jul). Consumer Behaviors on Certified Green Building-An Empirical Study of Vietnam.. The 23rd Symposium of Construction Engineering and

Management, Taichun, Taiwan. MOST 106-2221-E-002-038-MY3. Outstanding Paper Award.

4. S. Ping Ho and Pei-Yan Lin (2018, Nov). Critical Success Factors of Value Engineering in Construction Industry: A Case Study of Japanese Company. The Thirty-First KKHTCNN Symposium on Civil Engineering, Kyoto, Japan. MOST 103-2221-E-002-236-MY3. 本人為第一作者、通訊作者.
5. S. Ping Ho*, Chungyang You, and Yaowen Hsu (2018, Apr). An Empirical Study of Sustainable Development and Disclosure in Construction Industry. EGU General Assembly 2018, Vienna, Austria. MOST 106-2221-E-002-038-MY3. 本人為第一作者、通訊作者.
6. S. Ping Ho*, C. Yu, and Y. Hsu (2017, Apr). A Contingency View of the Strategies of Sustainable Development and Disclosure: Study of ENR’ s Top 10 Contractors. EGU General Assembly 2017, Vienna, Austria. MOST 103-2221-E-002-236-MY3. 本人為第一作者、通訊作者.
7. 周琳芸、荷世平、徐瑋澤（2020年07月）。智慧建築之消費者行為分析之計量實證研究。第24屆營建工程與管理學術研討會，台灣。科技部：109-2221-E-002-055。
8. 宋承洋、徐瑋澤、荷世平（2020年07月）。綠建築之消費者行為分析 — 結構方程模型研究。第24屆營建工程與管理學術研討會。科技部：109-2221-E-002-055。
9. 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。
10. 溫世家，徐瑋澤，荷世平（2019年07月）。綠建築之消費者行為分析之計量實證研究。第23屆營建工程與管理研討會。科技部：106-2221-E-002-038-MY3。Outstanding Paper Award。
11. S. C. Wen, W. C. Hsu, and S. Ping Ho（2018年11月）。A study of the factors that determine the buyers’ preference of green building – An empirical study 。The 8th Tropical and Subtropical Green Building Council Alliance Conference，Hong Kong, China。科技部：106-2221-E-002-038-MY3。
12. 沈廷緯，荷世平（2018年07月）。區塊鏈技術應用於土木工程之探討-以ICO 眾籌為例。第22屆營建管理與工程研討會，台灣。科技部：106-2221-E-002-038-MY3。

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Sustainable Building Design, Building Simulation and Energy Modeling, Building Envelopes and Commercial facades, Indoor Environmental Conditions

期刊論文(Journal Papers)

1. Do, C. T., and Chan, Y. C.*, (2020) “Evaluation of the Effectiveness of a Multi-Sectional Facade with Venetian Blinds and Roller Shades with Automated Shading Control Strategies”, Solar Energy, Vol. 212, pp. 241-257 (SCI)
2. Do, C. T., and **Chan, Y. C.*,** (2021) “Daylighting performance analysis of a facade combining daylight-redirecting window film and automated roller shade”, Building and Environment, Vol. 195, 107596 (SCI)
3. Do, C. T., Shen, H., **Chan, Y. C.***, and Liu, X. (2020) “Experimental Evaluation of Solar Radiation and Solar Efficacy Models and Performance of Data-Driven Models”, Journal of Architectural Engineering, Vol.27(1)
4. Tzempelikos, A., and **Chan Y. C**.(2016), “Estimating detailed optical properties of window shades from basic available data and modeling implications on daylighting and visual comfort”, Energy and Buildings, Vol. 126, pp. 396-407 (SCI)

研討會論文(Conference papers)

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2. Chen, P. Y., and **Chan, Y. C.** “Developing the methodology to investigate the thermal comfort of hot-humid climate under different ventilation modes”, CISBAT 2019, Lausanne, Switzerland, September 2019
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27. Kuo, W. L., H. X. Lee, and S. H. Hsieh (2019). "Designing a Database Schema for Supporting Visual Management of Variable Parameters in BIM Models," *Proceedings of the ASCE International Conference on Computing in Civil Engineering 2019*, June 17-19, 2019, Atlanta, GA, USA, 425-431. [MOST 107-2221-E-002-058-MY2]

28. Hsu, S.H., S.H. Hsieh, T.H. Lin, and T.Y. Dai (2019). "A Re-identification System for Multi-Target, Multi-Camera Tracking of Building Occupants," *Proceedings of the 32nd KKHTCNN Symposium on Civil Engineering*, October 24-26, 2019, Daejeon, Korea.

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34. Hsieh, S. H. (2020). "BIM Application Development in Taiwan," *Agora BIM World 2020 Online*, June 30, 2020, Zigurat Global Institute of Technology, Barcelona, Spain [Online] **[受邀專題演講]**

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51. Liu, K. Z., and S. H. Hsieh (2021). "Smart Contracts and Reputation Assessment Based Blockchain Application to Achieve Trusted On-site Construction Employment and Prompt Payment," *Proceedings of the 26th Conference on Computer Applications in Civil and Hydraulic Engineering (CCACHE 2021)*, Paper No. 30, August 30-31, 2021, Taoyuan City, Taiwan. [Online] [MOST 109-2621-M-002-012]

52. Pal, A., T. H. Wang, J. J. Lin, and S. H. Hsieh (2021). "A Framework for Vision-based Progress Monitoring through Localization and Analysis of Unorganized Onsite Photographs," *Proceedings of the 26th Conference on Computer Applications in Civil and Hydraulic Engineering (CCACHE 2021)*, Paper No. 78, August 30-31, 2021, Taoyuan City, Taiwan. [Online] [MOST 109-2622-E-002-027; 110-2222-E-002 -002 -MY3]

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C. 專書及專書論文(Monographs and monograph papers)

1. Hsieh, S. H., Amarnath C. B., and Y. H. Tsai (2017). "Development of BIM Courses in Civil Engineering," Chapter 11, *Integrated Building Information Modeling*, P. Wu, H. Li, and X. Wang (Eds.), 262-286, Bentham Science Publishers - Sharjah, UAE, eISBN: 978-1-68108-457-2, ISBN: 978-1-68108-458-9.
2. Hsieh, S. H., and S. C. Kang (Guest editors) (2019). Special Issue of the 3rd International Conference on Civil and Building Engineering Informatics, *Advanced Engineering Informatics*, Vol. 40.
3. 柳儒錚、林祐正、謝佑明、謝尚賢、溫子馨、黃紋玉、陳柏肇（2019），*透過案例演練學習 BIM：Tekla 結構篇*，國立臺灣大學出版中心，ISBN: 978-986-350-371-2。

D. 專利(Patent)

專利種類：美國發明專利
證號：US 9,959,372 B2
名稱：Building Information Modeling Feedback System, Method, Computer Readable Medium
專利權人：National Taiwan University
發明人： Shang-Hsien Hsieh and Huan-Ting Chen
專利權期間：2018/05/01–2036/10/18

專利種類：中華民國新型專利
證號：M565860
名稱：智慧工地資訊系統
專利權人：國立臺灣大學
發明人： 謝尚賢、韓仁毓、陳以文、李雨澈、陳立笙、楊懿、魏嘉盈、張引玉、黃隆茂
專利權期間： 2018/8/21 - 2028/2/26

E. 技轉

名稱：BIM 施工品質-智慧工地即時查驗系統（第二期研究服務專案）
被授權人：瑞助營造股份有限公司
時間：2017

名稱：BIM 施工品質-智慧工地即時查驗系統（第三期研究服務專案）
被授權人：瑞助營造股份有限公司
時間：2018

名稱：3D 自動畫設計(II)-潛盾隧道工程 SinoTunnel 之客製自動化設計界面
被授權人：中興工程顧問股份有限公司
時間：2019

名稱：地下車站結構 3D 設計自動化 SinoUnderstructure 之客製自動化設計界面
被授權人：中興工程顧問股份有限公司
時間：2019

名稱：3D 自動化設計(III)-SinoExcavation2 & SinoTunnel 2
被授權人：中興工程顧問股份有限公司
時間：2020

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Multiscale Modeling, Computational Mechanics, Materials Modeling, Software Design and Development, Artificial Intelligence for Engineering Application

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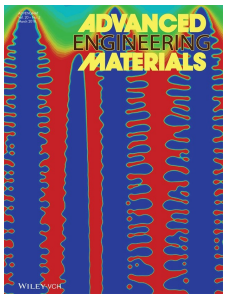
#corresponding author

1. A. Noorizadegan, D.L. Young#, C-S Chen# (2021) "A novel local radial basis function collocation method for multi-dimensional piezoelectric problems," *Journal of Intelligent Material Systems and Structures*, accepted. [SCI]
2. C-S Chen, A. Naji, Y. Cao#, C-S Chen (2021) "Space–time localized polynomial basis functions for solving parabolic and hyperbolic equations," *International Journal of Computer Mathematics*, accepted. [SCI]
3. K-T Chen, T-J Wei, G-C Li, M-Y Chen, Y-S Chen, S-W Chang, H-W Yen, C-S Chen# (2021) "Mechanical properties and deformation mechanisms in CoCrFeMnNi high entropy alloys: a molecular dynamics study," *Materials Chemistry and Physics*, **271**, 124912. [SCI]
4. S-R Lin, D.L. Young, C-S Chen# (2021) "Ghost-point based radial basis function collocation methods with variable shape parameters," *Engineering Analysis with Boundary Elements,* **130**, 40-48. [SCI]
5. T-H Su, N-H Lu, C-H Chen#, C-S Chen# (2021) "On the decrease of transformation stress in a bicrystal Cu-Al-Mn shape-memory alloy during cyclic compressive deformation," *Materials*, **14**, 4439. [SCI]
6. Y-T Lin, Y-K Chen, K-H Yang, C-S Chen, J-Y Han# (2021) "Integrating InSAR observables and multiple geological factors for landslide susceptibility assessment," *Applied Sciences*, **11**, 7289. [SCI]
7. D.L. Young, S-R Lin, C-S Chen, C. S. Chen# (2021) "Two-step MPS-MFS ghost point method for solving partial differential equations," *Computers and Mathematics with Applications*, **94**, 38-46. [SCI]
8. Y Chiang, C-C Tung, X-D Lin, P-Y Chen, C-S Chen, S-W Chang# (2021) "Geometrically toughening mechanism of cellular composites inspired by Fibonacci lattice in Liquidambar formosana," *Composite Structures*, **262**, 113349. [SCI]
9. 林彥廷、顏筱穎、張乃軒、林宏明、韓仁毓、楊國鑫、陳俊杉、鄭宏逵、徐若堯 (2021)。結合時空因子與 InSAR 觀測資料之地表崩塌變位預測分析。中國土木水利工程學刊，第 33 卷第 2 期，95-106。

10. T. H. Su, N. H. Lu, C. H. Chen#, C-S Chen# (2020), "Full-field Stress and Strain Measurements Revealing Energy Dissipation Characteristics in Martensitic Band of CuAlMn Shape Memory Alloy," *Materials Today Communications*, **24**, 101321. [SCI]
11. N-W Chi, J-P Wang, J-H Liao, W-C Cheng, C-S Chen# (2020), "Machine Learning Based Seismic Capability Evaluation for School Buildings," *Automation in Construction*, **118**, 103274. [SCI]
12. T-H Huang, T-H Huang, Y-S Lin, C-H Chang, S-W Chang, C-S Chen# (2019) "A Time Integration Method for Phase-Field Modeling," *Multiscale Science and Engineering*, **1**(1), 56-69.
13. C-S Chen (2019), "Working model of microstructural evolution by bio-inspired processing," *Landscape, NTU Research and Development*, **6**, 53.
14. T-H Huang, T-H Huang, Y-S Lin, C-H Chang, P-Y Chen, S-W Chang#, C-S Chen# (2018), "Phase-Field Modeling of Microstructural Evolution by Freeze-Casting," *Advanced Engineering Materials*, **20**(3), 1870007. [SCI]. 榮登 Very Important Paper, Cover Image, 榮登期刊封面。



15. T-H Huang, C-S Chen#, S-W Chang# (2018), "Microcrack Patterns Control the Mechanical Strength in the Biocomposites," *Materials and Design*, **140**, 505–515. [SCI].
16. C-H Wu, M-K Sun, J. Shieh, C-S Chen, C-W Huang, C-A Dai, S-W Chang, T-H Young# (2018). "Ultrasound-responsive NIPAM-based hydrogels with tunable profile of controlled release of large molecules," *Ultrasonics*, **83**, 157-163 [SCI].
17. C-S Lee, Y-Y Chen, C-H Yu, Y-C Hsu, C-S Chen# (2017), "Semi-analytical solution for the generalized absorbing boundary condition in molecular dynamics simulations," *Computational Mechanics*, **60**, 23-37. [SCI].
18. C-C Lin, Y-C Shih, C-S Chen# (2017), "Adsorption-induced surface stress on a c(4×2) adatom surface by an alkanethiol," *Materials Research Express*, **4**, 015020 [SCI].
19. J-F Wu, C-W Yang, N-T Tsou#, C-S Chen# (2017), "Identification of crystal variants in shape-memory alloys using molecular dynamics simulations," *Coupled Systems Mechanics*, **6**(1), 41-54.

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1. 蘇東桓、陳俊杉 (2021), "以數據驅動無組成律模型的計算力學及其應用" 第45屆全國力學會議，台北、台灣。(6頁，**學生論文競賽第一名**)
2. C-J Lin, J-P Wang, C-H Yu, C-S Chen (2021), "Strength and Toughness Optimization of Nacre-inspired Design using Reinforcement Learning," 第45屆全國力學會議，台北、台灣。(virtual)

3. Y-H Chiang, J-P Wang, C-C Tung, C-H Huang, C-H Yu, P-Y Chen, C-S Chen (2021), "Generating Three-Dimensional Bioinspired Microstructures with Deep Neural Networks," 第45屆全國力學會議，台北、台灣。(virtual)
4. C-S Chiu, J-P Wang, C-C Tung, C-H Yu, C-S Chen (2021), "Synthesize Bio-inspired Microstructures with Deep Learning: AE-Style-GANs," 第45屆全國力學會議，台北、台灣。(virtual)
5. T-Y Chien, Y-L Cheng, H-W Yen, C-S Chen (2021), "Microstructure-based crystal plasticity study on precipitation hardening behavior of aluminum alloys," 第45屆全國力學會議，台北、台灣。(virtual)
6. Y-W Chen, C-H Yu, C-S Chen (2021), "仿生材料設計：應用微結構於耐衝擊產品" 第45屆全國力學會議，台北、台灣。(virtual)
7. T-Y Chien, Y-L Cheng, H-W Yen, C-S Chen (2021), "Microstructure-based crystal plasticity study on precipitation hardening behavior of aluminum alloys," *2021 MRS-T International Conference (2021 MRSTIC)*, November 13-17, Taipei, Taiwan. (**invited talk**, virtual)
8. J-P Wang, C-C Tung, C-H Yu, P-Y Chen, C-S Chen (2021), "Machine learning for bioinspired structural materials," *2021 MRS-T International Conference (2021 MRSTIC)*, November 13-17, Taipei, Taiwan. (**invited talk**, virtual)
9. J-G Jean, T-H Su, C-S Chen (2021), "Local-convexity data-driven identification for materials data," *Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering & Technology (MMLDT-CSET 2021)*, September 26-29, San Diego, CA, USA. (hybrid)
10. T-Y Chien, Y-L Cheng, H-W Yen, C-S Chen (2021), "A dislocation density enhanced crystal plasticity finite element model for precipitation hardening behavior of aluminum alloys," *Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering & Technology (MMLDT-CSET 2021)*, September 26-29, San Diego, CA, USA. (hybrid)
11. C-S Chen, J-P Wang, C-H Huang, C-H Yu, P-Y Chen (2021), "Machine learning for bio-inspired structural materials," *Mechanistic Machine Learning and Digital Twins for Computational Science, Engineering & Technology (MMLDT-CSET 2021)*, September 26-29, San Diego, CA, USA. (hybrid)
12. T-H Su, J-G Jean, C-S Chen (2021), "High-quality Material Data Acquisition for Data-driven Computing using Manifold Learning-based Data-driven Identification Approach," *16th U.S. National Congress on Computational Mechanics*, July 25-29, Chicago, Illinois, USA. (hybrid)
13. 林彥廷、顏筱穎、張乃軒、林宏明、韓仁毓、陳俊杉、楊國鑫、鄭宏逵、徐若堯 (2020)。結合時空因子與 InSAR 觀測資料之地表變位相關性分析，2020 台灣地理資訊學會年會暨學術研討會，12 月 10-11 日，台灣台南。
14. C-S Chen (2020), "Machine learning for bio-inspired structural materials," 第44屆全國力學會議，宜蘭、臺灣。
15. J-G Jean, T-H Su, C-S Chen (2020), "Stress characterization and composite material identification from digital image correlation," 第44屆全國力學會議，宜蘭、臺灣。
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18. C-S Chen, T-H Su (2019), "Data-Driven Computational Mechanics with Stress and Strain Data from Digital Image Correlation," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
19. K-T Chen, M-Y Chen, Y-H Chen, S-W Chang, H-W Yen, C-S Chen (2019), "Molecular Dynamic Simulations of Mechanical Properties and Deformation Mechanisms of High-Entropy Alloys," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
20. S-R Lin, C-H Yu, C-S Chen (2019), "Isogeometric Analysis of Phase Field Method in Freeze-casting," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
21. Y-C Hsu, S-L Tsai, C-S Chen (2019), "Generative Adversarial Networks for Material Design of Bio-Inspired Microstructure," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
22. S-L Tsai, Y-C Hsu, P-Y Chen, S-W Chang, C-S Chen (2019), "Discover High Toughness Microstructures of Bio-Inspired Materials using Machine Learning Techniques," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
23. P-H Hsieh, P-C Chen, C-S Chen (2019), "Acceleration Tracking Control with Deep Learning on Seismic Simulator," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
24. H-C Wu, Y-L Cheng, H-W Yen, C-S Chen (2019), "A Crystal Plasticity Study on the Effect of Precipitation and Warm Forming of 6000 Series Aluminum Alloy," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
25. X-D Lin, Y-Y Tsai, Y Chiang, C-C Tung, Y Jiang, P-Y Chen, C-S Chen, S-W Chang, "Lightweight composite materials with bio-inspired morphologies," *Asian Pacific Congress on Computational Mechanics (APCOM 2019)*, December 18-21, Taipei, Taiwan.
26. C-S Chen, S-L Tsai, Y-C Hsu, S-W Chang, P-Y Chen (2019). "Machine Learning for Bioinspired Structural Materials." *16th East Asia-Pacific Conference on Structural Engineering & Construction (EASEC16),* December 3-6, Brisbane, Australia.
27. 吳泓錡、鄭翊良、顏鴻威、陳俊杉 (2019). "以晶體塑性模型探討鋁合金析出物與溫成形之影響,"第43屆全國力學會議，台中、台灣。(6頁，**學生論文第三名**)
28. Y-C Hsu, S-L Tsai, J-P Wang, P-Y Chen, S-W Chang, C-S Chen (2019). "Generative Adversarial Networks for Material Design of Bio-Inspired Microstructure." *56th Annual Technical Meeting of the Society of Engineering Science (SES2019)*, October 13 - 15, 2019, Washington University, St. Louis, MO, U.S.A.
29. S-L Tsai, Y-C Hsu, P-Y Chen, S-W Chang, C-S Chen (2019). "Discover High Toughness Microstructures of Bio-Inspired Materials using Machine Learning Techniques." *56th Annual Technical Meeting of the Society of Engineering Science (SES2019)*, October 13 - 15, 2019, Washington University, St. Louis, MO, U.S.A.
30. N-W Chi, J-P Wang, J-H Liao, W-C Cheng, C-S Chen (2019) "A Real Time Seismic Capability Evaluation of School Building Using Imbalanced Learning." *International*

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31. Y-H Chen, S-S Chang, S-W Chang, C-M Chang, Y-B Lin, K-C Chang, C-S Chen (2019) "Monitoring Bridge Scour Using Machine Learning." *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*, Taipei, Taiwan, September 15-19.
32. 陳俊杉 (2019). "人工智慧在土木工程應用的挑戰與契機," 電子計算機於土木水利工程應用研討會，台北、台灣。**(opening plenary talk)**
33. C-S Chen, S-W Chang, Y-C Hsu, S-L Tsai (2019). "Modeling and Design of Bioinspired Structural Materials." *The 10th International Conference on Materials for Advanced Technologies (ICMAT 2019),* June 23-28, Singapore **(invited talk)**.
34. C-S Chen (2019). "Modeling and Design of Bioinspired Structural Materials." *Meshfree Method and Advances in Computational Mechanics, In Celebration of Professor J.S. Chen's 60th Birthday*, March 10-12, Pleasanton, CA, USA **(invited talk)**.
35. 許育銓、游濟華、陳俊杉(2018). "連結分子動力學與聲子場的波傳多尺度介面,"第42屆全國力學會議，台北、台灣。(6頁，**學生論文競賽入圍**)
36. C-S Chen (2018). "MGI: Materials Greet AI", 材料基因工程 (Materials Genome Initiative, MGI) 論壇,107年中國材料科學學會年會暨五十週年慶,臺中,臺灣. **(invited forum talk)**
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39. C-S Chen, C-H Yu, Y-C Hsu (2018). "Multiscale Non-Equilibrium Molecular Dynamics Simulation and Applications,"*13th World Congress on Computational Mechanics (WCCM XIII)*, July 24-29, New York, USA.
40. C-S Chen (2018). "Bioinspired Structural Materials: Virtual Processing and Virtual Testing." *RISUD Annual International Symposium 2018 – Inter-disciplinary Research for Societal Impact*, June 29-30, Hong Kong. **(invited talk)**
41. C-S Chen, S-W Chang, Y-S Lin (2018). "Phase Field Method for Freeze Casting of Bio-inspired Materials." *18th U.S. National Congress on Theoretical and Applied Mechanics* (USNCTAM), June 5-9, Chicago, USA.
42. C-S Chen, H Lee, S-W Chang, Y-S Lin (2017). "Bioinspired Structural Materials: Virtual Processing and Virtual Testing." *IUMRS International Conference in Asia (IUMRS-ICA) 2017*, November 5-9, Taipei, Taiwan. **(invited talk)**
43. C-S Chen, H Lee, S-W Chang, Y-S Lin (2017). "Bioinspired Structural Materials: Virtual Processing and Virtual Testing." 2017 World Congress on Advances in Structural Engineering and Mechanics (ASEM17), August 28-Sepember 1, Seoul, Korea, 9 pages. **(semi-plenary talk)**
44. C-S Chen (2017). "Dynamic Multiscale Method and Applications,"*14th U.S. National Congress on Computational Mechanics*, July, Montreal, Canada.

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2. C-H Yu, K-P Lin, and C-S Chen[#] (2019), "Nanoindentation and Indentation Size Effects: Continuum Model and Atomistic Simulation," Chapter in *Handbook of Mechanics of Materials*, Ed. by C-H Hsueh, S. Schmauder, C-S Chen, K. K. Chawla, N. Chawla, W. Chen, Y. Kagawa, Springer Nature, Singapore.
3. C-H Yu[#], C-W Huang, C-S Chen, C-H Hsueh (2019), "Micromechanics Modeling of Creep Fracture of High-Temperature Ceramics," Chapter in *Handbook of Mechanics of Materials*, Ed. by C-H Hsueh, S. Schmauder, C-S Chen, K. K. Chawla, N. Chawla, W. Chen, Y. Kagawa, Springer Nature, Singapore.

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Remote Sensing in Hydrometeorology, Urban Stormwater Management, Fractals and Geostatistics, Multi-Scale Data Merging, Stochastic Rainfall Modelling and Forecasting

期刊論文 (Journal Papers)

1. Chen, Y., Paschalis, A., **Wang, L.-P.** and Onof, C.: Can we estimate flood frequency with point-process spatial-temporal rainfall models? J. Hydrol., 600, 126667, 2021, doi:10.1016/j.jhydrol.2021.126667.
2. Onof, C. and **Wang, L.-P.**: Modelling rainfall with a Bartlett–Lewis process: new developments, Hydrol. Earth Syst. Sci., 24(5), 2791-2815, 2020, doi:10.5194/hess-24-2791-2020.
3. Ochoa-Rodríguez, S., **Wang, L.-P.**, Willems, P. and Onof, C.: A review of radar-rain gauge data merging methods and their potential for urban hydrological applications, Water Resour. Res., 55 (8), 6356-6391, 2019, doi:10.1029/2018WR023332.
4. Muñoz, C., **Wang, L.-P.** and Willems, P.: Enhanced object-based tracking algorithm for convective rain storms and cells, Atmos. Res., 201, 144-158, 2018, doi:10.1016/j.atmosres.2017.10.027.
5. Gires, A., Tchiguirinskaia, I., Schertzer, D., Ochoa-Rodríguez, S., Willems, P., Ichiba, A., **Wang, L.-P.**, Pina, R., Van Assel, J., Bruni, G., Murla Tuyls, D., and ten Veldhuis, J. A. E.: Fractal analysis of urban catchments and their representation in semi-distributed models: imperviousness and sewer system, Hydrol. Earth Syst. Sci., 21, 2361-2375, 2017, doi:10.5194/hess-21-2361-2017.
6. Ochoa-Rodríguez, S., **Wang, L.-P.**, Thraves, L., Johnston, A., and Onof. C., Surface water flood warnings in England: overview, assessment and recommendations based on survey responses and workshops, Journal of Flood Risk Management, 11 (S1), S211-S221, 2018, doi:10.1111/jfr3.12195.

研討會論文 (Conference Papers/Abstracts)

1. **Wang, L.-P.** and Onof, C.: Modelling sub-hourly rainfall extremes with short records, International Conference on the Development and Applications of New Technologies in Civil Engineering (iCAN), Taoyuan, Taiwan, Oct-Nov 2020.
2. **Wang, L.-P.** and Onof, C.: Reproducing extreme statistics of hourly and sub-hourly rainfall with Bartlett-Lewis models: tips and new developments, 11th International Workshop on Precipitation in Urban Areas (UrbanRain 18), Pontresina, Switzerland, December 2018.
3. Zulkafli, Z., **Wang, L.-P.**, Mohd Zad, S.N. and Mutalib, R.: Improving satellite-based and ground radar-based estimations of subdaily rainfall for improved flood prediction, BHS National Symposium, London, UK, September 2018.

4. Verbeiren, B., Dagnachew Seyoum, S., Lubbad, I., Xin, T., ten Veldhuis, J. A. E., Onof, C., Wang, L.-P., Ochoa-Rodríguez, S., Veeckman, C., Boonen, M., See, L., Nalpas, D., O'Brien, B., Johnston, J. and Willems, P.: FloodCitiSense: Early Warning Service For Urban Pluvial Floods For And By Citizens and City Authorities, 11th International Conference on Urban Drainage Modelling, Palermo, Italy, September 2018.
5. Heh, Y.-T. and **Wang, L.-P.**: Unraveling the mystery of DeepMind's rainfall nowcasting: a step-by-step tutorial for hydrologists, European Geosciences Union (EGU) General Assembly 2022, Vienna, Austria, April 2022.
6. Kim, D., Onof, C., Park, J. and **Wang, L.-P.**: A stochastic rainfall generator suitable for modeling future compound disasters associated with heavy rainfall, European Geosciences Union (EGU) General Assembly 2022, Vienna, Austria, April 2022.
7. Chou, C.-C. and **Wang, L.-P.**: Observing Extreme Rainfall Events at Fine Timescales, European Geosciences Union (EGU) General Assembly 2022, Vienna, Austria, April 2022.
8. Wei, C.-L. and **Wang, L.-P.**: Toward a low-cost disdrometer: Measuring drop size with a cantilever piezo film, European Geosciences Union (EGU) General Assembly 2022, Vienna, Austria, April 2022.
9. Wei, C.-L., Su, W.-J., Chang, S.-W. and **Wang, L.-P.**: Toward a low-cost disdrometer: simulating the collision of raindrops with a cantilever piezo film, European Geosciences Union (vEGU) General Assembly 2021, Vienna, Austria, April 2021.
10. **Wang, L.-P.**, Dai, T.-Y., He, Y.-T., Chou, C.-C. and Onof, C.: pyBL: An open source Python package for stochastic high-resolution rainfall modelling based upon a Bartlett Lewis Rectangular Pulse model, European Geosciences Union (vEGU) General Assembly 2021, Vienna, Austria, April 2021.
11. Onof, C., Chen, Y., **Wang, L.-P.** and Ochoa-Rodriguez, S.: A two-stage analogue model for real-time urban flood forecasting, European Geosciences Union (vEGU) General Assembly 2021, Vienna, Austria, April 2021.
12. Dai, T.-Y. and **Wang, L.-P.**: Modelling high-resolution rainfall extremes in a changing climate, European Geosciences Union (vEGU) General Assembly 2021, Vienna, Austria, April 2021.
13. **Wang, L.-P.**, Marra, F. and Onof, C.: Modelling sub-hourly rainfall extremes with short records – a comparison of MEV, Simplified MEV and point process methods, European Geosciences Union (EGU) General Assembly 2020, Vienna, Austria, May 2020.
14. Wang, L.-P., Chen, Y., Muñoz, C. and Onof, C.: Characterising local rainfall cell patterns over Birmingham (UK) using 10+ years of high-resolution radar images, European Geosciences Union (EGU) General Assembly 2019, Vienna, Austria, April 2019.
15. Verbeiren, B., Dagnachew Seyoum, S., Lubbad, I., Xin, T., ten Veldhuis, J. A. E., Onof, C., **Wang, L.-P.**, et al.: FloodCitiSense: Early Warning Service For Urban Pluvial Floods For And By Citizens and City Authorities, 11th International Conference on Urban Drainage Modelling, Palermo, Italy, September 2018.
16. Llabres, I. and **Wang, L.-P.**: Challenges in the transition from TRMM to IMERG precipitation products - An index-based insurance perspective, American Geophysics Union (AGU) Fall Meeting 2018, Washington DC, USA, December 2018.
17. **Wang, L.-P.**, Onof, C., Orellana, B. and Kellagher, R.: On the calibration of point process models for preserving extreme rainfall statistics at hourly and sub-hourly timescales, European Geosciences Union (EGU) General Assembly 2018, Vienna, Austria, April 2018.
18. **Wang, L.-P.**, Muñoz, C., Horng, T.-C. Manz, B., Ochoa-Rodríguez, S., Willems, P. and Onof, C.: A convective rain cell database based upon high-resolution radar images: unravelling convection patterns, European Geosciences Union (EGU) General Assembly 2018, Vienna, Austria, April 2018.
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(A) 期刊論文 (Journal Paper) (*: 通訊作者)

a. SCI/SSCI 期刊論文

1. Ou, S., **Hsieh, I. Y. L.**, He, X., Lin, Z., Yu, R., Zhou, Y., & Bouchard, J. (2021). China's vehicle electrification impacts on sales, fuel use, and battery material demand through 2050: Optimizing consumer and industry decisions. Iscience, 24(11), 103375.
2. **Hsieh, I. Y. L.**, Pan, M.& Green, W. H.* (2020). Transition to electric vehicles in China: Implications for private motorization rate and battery market. Energy Policy, 144, 111654: 10.1016/j.enpol.2020.111654
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4. **Hsieh, I. Y. L.**, Pan, M. S., Chiang, Y. M., & Green, W. H.* (2019). Learning only buys you so much: Practical limits on battery price reduction. Applied Energy, 239, 218-224: 10.1016/j.apenergy.2019.01.138
5. **Hsieh, I. Y. L.**, Kishimoto, P. N., & Green, W. H.* (2018). Incorporating multiple uncertainties into projections of Chinese private car sales and stock. Transportation Research Record, 2672(47), 182-193: 10.1177/0361198118791361

b. 非屬SCI/SSCI之EI或TSSCI期刊論文

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(B) 研討會論文(Conference Paper) (*: 通訊作者)

a. 國外會議論文

1. **Hsieh, I. Y. L.**, Chossière, G. P., Gençer, E., Chen, H., Barrett S. & Green, W. H.* An integrated assessment of emissions, air quality, and public health impacts of China's transition to electric vehicles. 100th Annual Meeting of the Transportation Research Board, Washington, DC, 2021.
2. Loganathan, M. K., Tan, C. M., Sultana, S., **Hsieh, I. Y. L.**, Kumaraswamidhas, L. A., & Rai, R. N.* Parametric performance analysis of battery operated electric vehicle. In 2021 International Conference on Sustainable Energy and Future Electric Transportation

(SEFET) (pp. 1-6). IEEE.

3. **Hsieh, I. Y. L.**, Nunes, A., Pan, M. S., & Green, W. H.* Recharging options to improve the economics of electrified fleet ecosystem: A case study of battery swapping deployment in the taxi industry. 99th Annual Meeting of the Transportation Research Board, Washington, DC, 2020.
4. **Hsieh, I. Y. L.**, Pan, M. S., Chiang, Y. M., & Green, W. H.* Learning only buys you so much: Practical limits on battery price reduction. Materials Research Society (MRS) Fall Meeting, Boston, MA, 2019.
5. **Hsieh, I. Y. L.**, & Green, W. H.* The future of electro mobility in China. 26th Intelligent Transportation Systems (ITS) World Congress, Singapore, 2019.
6. **Hsieh, I. Y. L.**, & Green, W. H.* Shortage of raw materials could choke our electric car future. 6th International Association for Energy Economics (IAEE) Asian Conference, Wuhan, China, 2018.
7. **Hsieh, I. Y. L.**, Kishimoto, P. N., & Green, W. H.* Incorporating multiple uncertainties into projections of Chinese private car sales and stock. 97th Annual Meeting of the Transportation Research Board, Washington, DC, 2018.

b. 國內會議論文

1. 張綜桁、**謝依芸***，臺灣機車銷售市場與持有量預測，2021年中華運輸學會年會暨國際論文研討會，臺北，臺灣，2021 年。
2. 蔡佳妤、**謝依芸***，臺灣車輛電動化的潛在市場與環境影響，2021年中華運輸學會年會暨國際論文研討會，臺北，臺灣，2021 年。
3. 謝承翰、**謝依芸***、張學孔，直轄市電動公車營運與補貼之研究—以台北市為例，2021年中華運輸學會年會暨國際論文研討會，臺北，臺灣，2021 年。
4. 曾暐畯、**謝依芸***，區塊鏈技術在電動車與綠能科技上的應用，第一屆台灣智慧電動車及綠能科技研討會，臺灣，2021 年。
5. 陳維軒、**謝依芸***，電動車電池組成本預測，第一屆台灣智慧電動車及綠能科技研討會，臺灣，2021 年。
6. 馮意凡、**謝依芸***，衛星數據與人工智慧在綠色能源上的應用，第一屆台灣智慧電動車及綠能科技研討會，臺灣，2021 年。
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8. 張綜桁、**謝依芸***，台灣機車銷售市場預測與電動化的減碳潛力，第一屆台灣智慧電動車及綠能科技研討會，臺灣，2021 年。
9. 謝承翰、**謝依芸***，台北市區電動公車營運之研究，第一屆台灣智慧電動車及綠能科技研討會，臺灣，2021 年。
10. **謝依芸***、張綜桁，車輛電動化轉型之展望與挑戰，2020 年中華運輸學會年會暨國際論文研討會，臺南，臺灣，2020 年。

(D) 技術報告

1. MIT Energy Initiative (including **Hsieh, I. Y. L.**) (2019). Insights into Future Mobility. Cambridge, MA.

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Artificial Intelligence, Big Data and Data Fusion, Structural Health Monitoring, Metamaterial Design, System Identification and Inverse Problems

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Satellite Geodesy, Error Theory, Modern Geomatics Technologies and Applications, Integrated analysis of Spatial Information

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1. Soler, T., and Han, J.Y. (2017) On rotation of frames and physical vectors: an exercise based on plate tectonics theory, *GPS Solut.*, 21: 345-361, doi: 10.1007/s10291-016-0521-5. (SCI, EI)

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6. 賴進松，韓仁毓，李豐佐，張文鎰，楊淑媛（2018）應用 UAV 影像分析技術於固床工變動與周邊流場之研究，*農業工程學報*，第六十四卷第二期，第 1-11 頁 doi: 10.29974/JTAE.201806_64(2).0001。(EI)

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4. 李雨澈，韓仁毓（2017）整合 BIM 與空間資訊技術於施工監造，第三十六屆測量與空間資訊研討會，8 月 30 日-9 月 1 日，臺灣臺南。

5. 詹登傑，韓仁毓（2017）應用單一旋轉像機影像於物件定位與追蹤，第三十六屆測量與空間資訊研討會，8 月 30 日-9 月 1 日，臺灣臺南。

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