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

(2018-2022)

2023 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)

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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

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.

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-

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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. Weng, M.C., C.L. Lin*, F.S. Jeng, H.C. Ou (2022, Feb). Evaluating the hydraulic conductivity of dense nonaqueous phase liquid in a single fracture of rock-like material. Sustainability, 14 (4), 2288.

2. Wang, T.T., O.L.A. Kwok, F.S. Jeng (2021, Jun). Seismic response of tunnels revealed following the Chi-Chi earthquake: a review. Engineering Geology, 287, 106090. (SCI, 2/41，ENGINEERING, GEOLOGICAL). MOST 102-2221-E027-071-MY3.

3. Wang, T.T., F.S. Jeng, T.T. Lee (2020, Oct). Environmental impact of Hsuehshan Tunnel on water quality at Feitsui Reservoir and its tributaries. Environmental Monitoring and Assessment, 192, 700..

4. Weng, M.C., C.Y. Chang, F.S. Jeng, H.H. Li (2020, Sep). Evaluating the stability of anti-dip slate slope using an innovative failure criterion for foliation. Engineering Geology, 275, 105737.. (SCI, 2/41, ENGINEERING, GEOLOGICAL). MOST 106-2625-M-390-001.

5. Weng, M.C., F.S. Jeng, C.C. Chiu, Y.C. Lin (2020, Sep). Modeling rock bolt reinforcement by using the particulate interface model of DEM. Journal of Geoengineering, 15(3), 123-134..

6. S.S. Zhan, T.T. Wang*, F.S. Jeng* (2018, Dec). Fracture characterization using hydrogeological approaches and measures taken for groundwater inrush mitigation in shaft excavation. Tunnelling and Underground Space Technology, 82, 554-567. (SCI, 27/128, ENGINEERING, CIVIL). 本人為通訊作者.

7. Jeng, F.S., K.P. uang, K.J. Chang (2018, Aug). Analytical Solution of Folding Behaviors of Multi-layer Viscous Strata. Terr. Atmos. Ocean. Sci., 29(4), 355- 370.. (SCI, 180/200, GEOSCIENCES, MULTIDISCIPLINARY). MOST 89- 2211-E-002-150. 本人為第一作者、通訊作者.

8. F.S. Jeng, M. C. Weng*, F.H. Yeh, Y.H. Yang, T.H. Huang (2017, Aug). A Constitutive model of sandstone considering the post peak behavior. Journal of the Chinese Institute of Engineers. (SCI, 78/86, ENGINEERING, MULTIDISCIPLINARY). MOST 101-2116-M-002-021. 本人為第一作

(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。

研討會論文(Conference papers)

1. Wang, T.T., W.L. Chen, F.S. Jeng, M.C. Tsao, W.Lo, W.J Lee (2020, Oct). Engineering geological factors affect maintenance of Dasha River section of Taiwan No. 8 highway. Eurock-2020 (Cancelled due to COVID-19 pandemic, with proceeding available) , Trondheim, Norway.
2. Tsao, M.C., W.L. Chen, F.S. Jeng, T.T. Wang (2019, Dec). Influence of engineering geological characteristics on highway maintenance: Example of Dasha River section of Central Cross-Island Highway. The 5th ISRM Young Scholars' Symposium on Rock Mechanics and International Symposium on Rock Engineering for Innovative Future (YSRM 2019& REIF 2019), Okinawa, Japan..
3. 李紫彤、劉曉樺、鄭富書、王泰典（2022 年 11 月）。岩石隧道依時變形案例及 其考量應力門檻之數值模擬探討。第二十屆海峽兩岸隧道與地下工程學術與 技術研討會，台北。
4. 李嚴勝、王泰典、鄭富書（2022 年 08 月）。應用邊界積分法於地表變位反算邊 坡潛在滑動面初探。第 19 屆大地工程學術研究討論會論文集，淡水。
5. 郭威廷、鄭富書、王泰典（2022 年 08 月）。考慮空間變異離散裂隙網路之岩體 水力特性代表性單元體積評估。第 19 屆大地工程學術研究討論會論文集，淡水。
6. 黃詠智、王泰典、鄭富書（2022 年 08 月）。點雲模型解析度對於判釋成果影響 探討-以露頭調查為例。第 19 屆大地工程學術研究討論會論文集，淡水。
7. 黃宥傑、鄭富書、王泰典（2022 年 08 月）。非連續體數值模擬方法中板岩不連 續面等值化評估方法。第 19 屆大地工程學術研究討論會論文集，淡水。
8. 黃詠智、王泰典、鄭富書（2022 年 05 月）。先進測繪點雲探討褶皺中不連續面 之空間變異性-以台 20 線 186.5k 處露頭為例。2022 岩盤工程研討會，桃園。
9. 黃宥傑、王泰典、鄭富書（2022 年 05 月）。三維水力破裂試驗顆粒流模擬技術 開發。2022 岩盤工程研討會，桃園。
10. 楊宜蓉、Johnson, K.M.、王泰典、鄭富書（2020 年 09 月）。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，台灣，墾丁。
11. 陳玟伶、曹孟真、王泰典、鄭富書（2020 年 09 月）。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，台灣，墾丁。
12. 黃宥傑、蘇仁偉、蘇芳郁、王泰典、鄭富書（2020 年 09 月）。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，台灣，墾丁。
13. 劉曉樺、王泰典、鄭富書、黃燦輝（2017 年 08 月）。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，中國貴州貴陽。

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Engineering Geology, Rock Mechanics, Slope Stability

期刊論文 (Journal Papers)

1. Hung, C.H., Chan, P.J., Lin, C.H., **Lin, M.L.** (2022) Numerical Investigation of Roles of Gravel Fabric on Composite Strata Deformation Induced by Thrust Faulting. Engineering Geology, 106921. https://doi.org/10.1016/j.enggeo.2022.106921. (SCI)
2. 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)
3. **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)
4. 林承翰、林邵儒、張育瑄、**林銘郎** (2022) 節理岩坡之楔型破壞調查與分析案例介紹。地工技術，173，7-16。
5. 謝沛宸、詹佩臻、鍾春富、朱聖心、李健宏、柳鈞元、林承翰、洪千惠、方儒雅、彭昱熙劉育良、**林銘郎** (2022) 工程設施如何面對與因應調適近斷層錯動：過去、現況、未來。地工技術，172，7-16。
6. 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。
7. **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。
8. 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。
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期刊論文 (Journal Papers)

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1. Tabarroki, M (Tabarroki, Mohammad) [1] ; Ching, JY (Ching, Jianye) [1] ; Lin, CP (Lin, Chia-Pei) [1] ; Liou, JJ (Liou, Jin-Jia) [1] ; Phoon, KK (Phoon, Kok-Kwang) [2] (2022). Homogenizing spatially variable Young modulus using pseudo incremental energy method. Structural Safety, 97, 102226. (SCI)
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18. Ching, J. (2019). Constructing site-specific multivariate probability distribution model: Hybridization versus hierarchical Bayesian analysis. International Symposium on Reliability of Multi-disciplinary Engineering Systems under Uncertainty. (**keynote lecture**)
19. Ching, J. and Phoon, K.K. (2018). Bayesian data mining for a generic geotechnical database. 6 ISRERM. (**keynote lecture**)
20. Ching, J. and Phoon, K.K. (2018). Constructing multivariate probability distribution for soil properties based on site-specific data. 6 ISRERM.
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28. Phoon, K.K. and Ching, J. (2017). Better correlations for geotechnical design. GeoSS 10th Anniversary Conference. (**State-of-the-Practice Lecture**)

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1. Ching, J., Li, D. Q. & Zhang, J. (Eds) (2019). Proceedings, 7th International Symposium on Geotechnical Safety and Risk, Research Publishing, 11-13 December 2019, Taipei, Taiwan, 899pp.

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Laboratory Soil Testing; Soil Liquefaction; Constitutive Modeling

(A) 期刊論文(Journal Papers)

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9. Jhuo, Y.S., Yeh, Y.H., and Ge*, L. (2020) Shear strength and volume change behavior of binary granular mixtures, *Journal of GeoEngineering*, 15(2), 103-108. (EI)

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12. Yeh, F.-H., Chuang, T.-S., Tsai, F.-J., and Ge*, L. (2020) Calibration of advanced constitutive model using optimization methods, *Journal of Testing and Evaluation*, 48(3), 2196-2212. (SCI)

13. Lu, C.W., Chu, M.C., Ge, L., and Peng, K.S. (2020) Estimation of settlement after soil liquefaction for structures built on shallow foundations, *Soil Dynamics and Earthquake Engineering*, 129, 105916. (SCI)

14. Wang, C., Deng, A., Taheri, A., and Ge, L. (2020) A mesh-free approach for multiscale modeling in continuum-granular systems, *International Journal of Computational Methods*, 17(10), 2050006. (SCI)

15. Hsieh, H.S., Wang, Z.Y., Lin, T.M., and Ge, L. (2019) The system stiffness and wall displacement of a deep excavation strengthened with cross walls in soft clay, *Journal of GeoEngineering*, 14(4), 203-217. (EI)

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21. Lu, C.W., Ge, L., Chu, M.C., and Chin, C.T. (2018) Liquefaction-induced settlement of structures on shallow foundation, Geotechnical Engineering Journal of the SEAGS & AGSSEA, 49(2), 138-141. (EI)

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6. Yeh, F.H., Weng, M.C., and Ge, L. (2019) Implementation of a nonlinear elastoplastic model for tunneling in sandstone, the 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, Taipei, Taiwan, October 14-18, 2019.
7. Ge, L., Cheng, W.C., and Lu, C.W. (2019) Developing a flow pump apparatus for soil-water characteristics curve measurement, 7th Asia-Pacific Conference on Unsaturated Soils (AP-UNSAT2019), Japanese Geotechnical Society Special Publication, EA25.
8. Cheng, W.C., Jin, X., Wang, L., Xue, Z.F., Ge, L., and Zhou A. (2019) Investigation into mechanical behaviour of loess-wheat straw mixtures, 7th Asia-Pacific Conference on Unsaturated Soils (AP-UNSAT2019), Japanese Geotechnical Society Special Publication, 418-423.
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Tunnel Engineering, Rock Mechanics, Tunnel Maintenance, Engineering Geology

(一) SCI/Scopus期刊論文 (✉表通訊作者)

1. Yang, Y.R., T.T. Wang✉, T.T. Lee (2022): Spatiotemporal characteristics of ground microtremor in advance of rockfalls, Scientific Reports, 12, 7751. https://doi.org/10.1038/s41598-022-10611-3.
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9. 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.
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(二) 非 SCI 期刊論文：

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2. 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)

3. 邱雅筑、王泰典、黃燦輝(2021)：隧道維護管理發展現況、回顧暨展望，*地工技術*，168，5-16。

4. 羅百喬、潘立慈、羅偉、李紫彤、陳玟玲、王泰典、謝有忠(2021)：板岩片岩交界帶附近邊坡穩定與岩體工程特性探討～以南橫公路摩天下馬沿線為例，*地工技術*，167，19-28。

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9. 王泰典、陳正勳、邵厚潔(2018)：新奧工法在我國隧道工程應用回顧及蘇花公路山區路段改善計畫的精進，*地工技術*，157，7-16。

10. 劉曉樺、吳致緯、王泰典、李文正(2018)：蘇花海岸及公路沿線邊坡失穩型態與道路防災策略探討，*地工技術*，157，17-26。

11. 王泰典(2018)：精細三維測繪世代的岩盤工程地質調查展望，*土木水利*，45(3)，57-66。

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(三) 研討會論文(Conference papers)：

1. 李紫彤、劉曉樺、鄭富書、王泰典(2022)：岩石隧道依時變形案例及其考量應力門檻之數值模擬探討，第二十屆海峽兩岸隧道與地下工程學術與技術研討會，11 月 2-3 日，台北，7-4-1~8。

2. 黃宥傑、鄭富書、王泰典(2022)：非連續體數值模擬方法中板岩不連續面等值化評估方法，第 19 屆大地工程學術研究討論會論文集，8 月 31 日- 9 月 2 日，淡水，K12。

3. 黃冠霖、王泰典(2022)：岩石挖掘數值模擬與室內實驗評估，第 19 屆大地工程學術研究討論會論文集，8 月 31 日- 9 月 2 日，淡水，K11。

4. 黃亮儒、王泰典(2022)：等值節理岩體組成模式應用於隧道三維變形分析，第 19 屆大地工程學術研究討論會論文集，8 月 31 日- 9 月 2 日，淡水，K10。

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6. 羅百喬、黃詠智、羅偉、王泰典、謝有忠(2022)：南橫公路霧鹿至利稻鄰近板岩與片岩岩性交界帶的邊坡穩定與岩體特性探討，第 19 屆大地工程學術研究討論會論文集，8 月 31 日- 9 月 2 日，淡水，J08。

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11. 李紫彤、陳玟伶、劉曉樺、王泰典(2022)：精細測繪於岩坡工程地質調查及監測應用，2022 岩盤工程研討會，5 月 5 日- 5 月 6 日，桃園，10-11。
12. 許珮筠、林辰宇、王泰典(2022)：高速荷載下岩石是否具單一破裂面，2022 岩盤工程研討會，5 月 5 日- 5 月 6 日，桃園，46-47。
13. 蘇芳郁、王泰典、劉台生(2022)：裂隙岩體水力傳導特性代表性單元體積數值評估，2022 岩盤工程研討會，5 月 5 日- 5 月 6 日，桃園，53-54。
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Slope Stability and Earth Retaining Structures, Application of Geosynthetics, Geotechnical Engineering Modeling, Geo-Environmental and Geo-Disaster Engineering

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Geotechnical Earthquake Engineering including Soil Dynamics.

Ground Motion Characterization and Site Response Analysis

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

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期刊論文(Journal Papers)

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專利(Patents)

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21. 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 。

22. 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**)

23. 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**)

24. 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 。

25. Chou, C. C.*, Beato Ovalle, R.A. (2018). "Gusset Design Considering Buckling Forces in Frame and Brace Action Directions: Test and Finite Element Analysis of a Self-Centering Braced Frame for Verification" ***Engineering Structures,*** 173, 643-655. (5-Year IF= 3.345, IF=3.084, SCI, EI)

26. 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)**

27. 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)

28. 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 。

研討會論文(Conference Papers)

1. 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

2. 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.

3. 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.

4. 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)**

5. 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)**

6. 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)**

7. 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

8. 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

9. 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

10. 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

11. 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

12. 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

13. 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

14. 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.

15. 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)**

16. 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.

17. 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)**

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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)**

26. 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

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

28. 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.

29. 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)**

30. 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.

31. 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.

32. 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.

33. 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)**

34. 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)**

35. 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

36. 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

37. 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

38. 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**)**

39. 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**)**

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)

10. 劉琨耀(2020) 「評估風機鋼管圓柱撓曲強度與鋼板受腐蝕影響之行為」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)

11. 陳建豪(2020) 「含橡膠墊之自復位斜撐耐震性能: 震動台試驗與動力分析」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)

12. 周中哲、陳冠維、賴耘川、熊厚淳、鍾秉庭(2020)「高強度鋼柱於高軸力下的耐震行為研究」，科技部計畫編號: **MOST 107-2625-M-002-013** (in Chinese)

13. 林瑞良、陳雯惠、劉郁芳、周德光、葉勇凱、趙書賢、郭俊翔、蕭輔沛、翁元滔、周中哲 (2020)「鋼筋混凝土建築之非線性反應歷時分析」，Report NCREE-20-001，國家地震工程研究中心。(in Chinese)

14. 周中哲、鍾秉庭 (2019)「廣慈博愛園區 D 標大樓夾型鋼骨挫屈束制消能支撐試驗」，成果報告，國立臺灣大學工學院地震工程研究中心。(長榮重工、in Chinese)

15. 粘評 (2019) 「鋼筋混凝土高層住宅鋼造雙 K 型斜撐框架補強試驗」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)

16. 趙廣上(2019)「鋼造雙 K 型斜撐框架有限元素模擬分析」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)

17. 陳冠維(2019) 「高強度鋼箱型柱之耐震試驗與背骨曲線發展」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)

18. 郭泯辰(2019) 「高寬厚比之風機鋼管圓柱耐震試驗與非線性地震歷時分析」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)

19. 洪經富(2019) 「應用於鋼筋混凝土建築物之純壓雙核心自復位斜撐發展與驗證」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)

20. 周中哲、劉郁芳、鍾秉庭(2019)「2019 高層建築發展及補強研討會論文集」，Report NCREE-2019-002，國家地震工程研究中心。(in Chinese)

21. 周中哲、鍾秉庭(2018)「臺北市私立延平高級中學夾型鋼骨挫屈束制消能支撐試驗」，東鋼鋼結構股份有限公司，2018/10/22，國立臺灣大學地震工程研究中心。(in Chinese)

22. 周中哲、鍾秉庭、陳威霖、粘評、趙廣上(2018) 「板橋浮洲合宜住宅 A2、A3 及 A6 區之補強構件實體試驗驗證」，成果報告，國立臺灣大學工學院地震工程研究中心。(in Chinese)

23. 周中哲、陳建豪、林春霖、鍾秉庭(2018) 「應用高性能材料於自復位斜撐之耐震性能研究」，科技部計畫編號:**MOST 106-2625-M-002-004** (in Chinese)

24. 曾文豪 (2018) 「新型槓桿黏彈性制震壁之動力特性及試驗」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)

25. 萬家汶(2018)「含消能鋼筋之自復位斜撐發展及試驗驗證」，碩士論文指導教授: 周中哲，國立臺灣大學土木工程系。(in Chinese)

26. 連奕婷(2018)「槓桿黏彈性制震壁之配置對高科技廠房耐震行為影響」，碩士論文指導教授: 周中哲，國立臺灣大學土木工程系。(in Chinese)

27. 林春霖(2018)「評估抗彎構架跨數對斜撐構架之耐震性能: 挫屈束制與自復位斜撐震動台試驗與分析」，碩士論文指導教授: 周中哲，國立臺灣大學土木工程系。(in Chinese)

學術出版專書

1. 周中哲 客座主編 (2020)「土木水利:鋼結構專輯」，中國土木水利工程學會，第四十七卷，第六期 (12 月)
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Reinforced Concrete (RC) Structures, Prestressed Concrete (PC) Structures, Earthquake Engineering, Bridge Engineering

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1. **Ou, YC** (Ou, Yu-Chen) [1] ; Joju, J (Joju, Jones) [1] ; Hsu, WC (Hsu, Wen-Chi) [1] (2022), Cyclic behavior of shear-critical concrete columns with unstressed steel strands as longitudinal reinforcement, ***Engineering Structures***, 264, 114465.
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High Performance Concrete, Fiber Reinforced Concrete, Reinforced Concrete, Seismic Design for RC Structures

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21. J.F. Chang, S.H. Liu, K.C. Lu, S.M. Ka, C.Y. Hsieh, C.T. Ho, W.N. Lin, L.L. Wen, J.C. Liou, **S.W. Chang**, C.C. Wu, T.M. Wang, and Y.Y. Li. (2020, Mar). Uremic Vascular Calcification Is Correlated With Oxidative Elastic Lamina Injury, Contractile Smooth Muscle Cell Loss, Osteogenesis, and Apoptosis: The Human Pathobiological Evidence. *Frontiers in Medicine*, *7*, 12, Article 78. [SCI, IF 5.093]
22. K.L. Chen, D. Li, T.X. Lu and **S.W. Chang** (2020, Jan). Structural Characterization of the

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24. D. Li, T.H. Kao, and **S.W. Chang** (2020, Jan) The structural changes of the mutated ankyrin repeat domain of the human TRPV4 channel alter its ATP binding ability. *Journal of the Mechanical Behavior of Biomedical Materials*, 101, 103407 [SCI, IF 3.902]
25. T.K. Lin, Y.H. Chien, Y.C. Chen, K.Y. Lin, and **S.W. Chang**. (2019, Oct). Investigation of Ensemble Empirical Mode Decomposition Applied for Composite Multiscale Cross-Sample Entropy Analysis. *Multiscale Science and Engineering*, *1*(4), 288-298.
26. J.F. Chang, J.C. Yeh, C.T. Ho, S.H. Liu, C.Y. Hsieh, T.M. Wang, **S.W. Chang**, I.T. Lee, K.Y. Huang, J.Y. Wang, and W.N. Lin (2019, Sep) Targeting ROS and cPLA2/COX2 Expressions Ameliorated Renal Damage in Obese Mice with Endotoxemia. *International Journal of Molecular Sciences*, *20*(18), 13, Article 4393. [SCI, IF 5.924]
27. T.H. Huang, T.H. Huang, Y.S. Lin, C.H. Chang, **S.W. Chang**, and C.S. Chen. (2019, Jan). A Time Integration Method for Phase-Field Modeling. *Multiscale Science and Engineering*, *1*(1), 56-69.
28. D. Li, and **S.W. Chang** (2019) Effects of deformation rate on the unbinding pathway of the MMP8-Aggrecan_IGD complex in cartilage. *Computer Modeling in Engineering & Sciences*, *120*(2), 305-318 [SCI, IF 1.593]
29. C.H. Wen, S.C. Hsu, S.H. Hsu and **S.W. Chang** (2018, Dec). Molecular Structures and Mechanisms of Waterborne Biodegradable Polyurethane Nanoparticles. *Computational and Structural Biotechnology Journal*, *17*, 110-117. [SCI, IF 7.271]
30. J.C. Yeh, C.C. Wu, C.S. Choy, **S.W. Chang**, J.C. Liou, K.S. Chen, T.H. Tung, W.N. Lin, C.Y. Hsieh, C.T. Ho, T.M. Wang and J.F. Chang (2018, Nov). Non-Hepatic Alkaline Phosphatase, hs-CRP and Progression of Vertebral Fracture in Patients with Rheumatoid Arthritis: A Population-Based Longitudinal Study. *Journal of Clinical Medicine, 7*(11), 12, Article 439. [SCI, IF 4.242]
31. W.C. Ko, C.S. Choy, W.N. Lin, **S.W. Chang**, J.C. Liou, T.H. Tung, C.Y. Hsieh and J.F. Chang (2018, Sep). Galectin-3 Interacts with Vascular Cell Adhesion Molecule-1 to Increase Cardiovascular Mortality in Hemodialysis Patients. *Journal of Clinical Medicine*, *7*, 300. [SCI, IF 4.242]
32. T.H. Huang, T.H. Huang, Y.S. Lin, C.H. Chang, P.Y. Chen, **S.W. Chang**, and C.S. Chen. (2018, Mar). Phase-Field Modeling of Microstructural Evolution by Freeze-Casting. *Advanced Engineering Materials*, *20*(3), 13, Article 1700343. [SCI, IF 3.862]
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34. C.H. Wu, M.K. Sun, J. Shieh, C.S. Chen, C.W. Huang, C.A. Dai, **S.W. Chang**, W.S. Chen, and T.H. Young (2018, Feb). Ultrasound-responsive NIPAM-based hydrogels with tunable profile of controlled release of large molecules. *Ultrasonics*, *83*, 157-163 [SCI, IF 2.890]

研討會論文 (Conference papers)

1. Y. Chiang, W.H. Hui, and **S.W. Chang**. (2022, Feb 19-23). *On the utility of dynamical*

information in protein function prediction and understanding dynamics-function relation. 66th Biophysical Society Annual Meeting (BPS 2022), San Francisco, CA, USA.

2. Y. Chiang, and **S.W. Chang**. (2021, Nov 29-Dec 2). *Encoding dynamical information in graph representation learning for large-scale protein function prediction*. 2021 MRS Fall Meeting, Boston, MA, USA.
3. Y.Y. Tsai, Y. Chiang, J. L. Buford, M.L. Tsai, H.C. Chen, and **S.W. Chang**. (2021, Nov 29-Dec 2). *Mechanical properties and fracture behavior of Sierpinski carpet fractal composites*. 2021 MRS Fall Meeting, Boston, MA, USA.
4. Y. Chiang, and **S.W. Chang**. (2021, Nov 18-19). *Atomistic modeling and mechanical characterization of silicate polymorphs in calcium-Silicate-Hydrates*. 45th Conference on Theoretical and Applied Mechanics (CTAM2021), Taipei, Taiwan.
5. Y.Y. Lai, D. Li, and **S.W. Chang**. (2021, Nov 18-19). *Molecular mechanism of cartilage extracellular matrix degradation*. 45th Conference on Theoretical and Applied Mechanics (CTAM2021), Taipei, Taiwan.
6. 惠維翰, **張書瑋**. (2021, Nov 18-19). *日常負載下交聯膠原蛋白纖維的力學機制*. 45th Conference on Theoretical and Applied Mechanics (CTAM2021), Taipei, Taiwan.
7. 蔡孟霖, 蔡亞芸, 陳憲君, **張書瑋**. (2021, Nov 18-19). *仿生金屬複合材料結構模擬及分析*. 45th Conference on Theoretical and Applied Mechanics (CTAM2021), Taipei, Taiwan.
8. Y. Chiang, and **S.W. Chang**. (2021, Nov 13-17). *Molecular understanding of silicate polymorphism in Calcium-Silicate-Hydrates*. 2021 Materials Research Society-Taiwan International Conference (2021 MRSTIC), Taipei, Taiwan.
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.
14. 蔡亞芸, 謝明凱, **張書瑋**. (2021, Oct 16). *Stability and strength of pedicle screws in broken pedicles via particle-based modeling approach*. 2021 Annual Scientific Meeting of Taiwanese Society of Biomechanics (TSB 2021), Taipei, Taiwan.
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.

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期刊論文 (Journal Papers)

英文 SCI 期刊

1. Hsu, S. H., Hung, H. T., Lin, Y. Q., and **Chang, C. M.** (2022). "Defect inspection of indoor components in buildings using deep learning object detection and augmented reality." Earthquake Engineering and Engineering Vibration, accepted. (**SCI, Engineering-Civil, Q3, 2021**)
2. Chou, J. Y. and **Chang, C. M.** (2022). "Low-story damage detection of buildings using deep neural network from frequency phase angle differences within a low-frequency band." Journal of Building Engineering, 55, 104692. (**SCI, Engineering-Civil, Q1, 2021**)
3. Lai, Y. A., Luo, W. C., Huang, S. K., Yang, C. Y., and **Chang, C. M.** (2022). "Seismic control of structure with phase control active tuned mass damper." Structural Control and Health Monitoring, 29(7), e2946. (**SCI, Engineering-Civil, Q1, 2021**)
4. Chou, J. Y., **Chang, C. M.**, and Spencer, B. F., Jr. (2022). "Out-of-plane modal property extraction based on multi-level image pyramid reconstruction using stereophotogrammetry." Mechanical Systems and Signal Processing, 169, 10878. (**SCI, Engineering-Mechanical, Q1, 2021**)
5. Chou, J. Y., Fu, Y., Huang, S. K., and **Chang, C. M.** (2022). "SHM data anomaly classification using machine learning strategies: A comparative study." Smart Structures and Systems, 29(1), 77-91. (**SCI, Engineering-Civil, Q2, 2021**)
6. Hsu, S. H., Chang, T. W., and **Chang, C. M.** (2022). "Impacts of label quality on performance of steel fatigue crack recognition using deep learning-based image segmentation." Smart Structures and Systems, 29(1), 207-220. (**SCI, Engineering-Civil, Q2, 2021**)
7. 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**)
8. 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**)

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10. 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**)
11. 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**)
12. 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**)
13. **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**)
14. 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**)
15. 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)**

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**)

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. 周肇昱、**張家銘**、莊奕婕、楊卓諺、宋裕祺、蘇建國、林世豪、翁偉誠，2022，「基於模態特徵之風力機監測可行性研究：以一林口風力機為例」，中國土木水利學會學刊，第三十四卷第四期，307-318 頁。

2. 陳致融、陳儀諺、陳致源、賴明俊、蘇進國、宋裕祺、**張家銘**、楊卓諺、林世豪、翁偉誠，2022，「陸域風力機支撐結構監測與分析」，中國土木水利學會學刊，第三十四卷第四期，319-330 頁。
3. 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。
4. 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。
5. 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。
6. 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。
7. 許舜翔、張庭維、**張家銘**、陳俊杉、韓仁毓、林曜滄、林魁士、張廷犖，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。
8. 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。
9. 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 Kao, T. L. (2022). “Development of geometrically nonlinear mass damper with mass moment of inertia for seismically-excited buildings.” The 23rd Taiwan-Korea-Japan Joint Seminar on Earthquake Engineering for Building Structures, Nagoya, Japan.
2. Liu, C. C. and **Chang, C. M.** (2022). “Seismic protection of essential components and equipment using isolation with geometrically nonlinear viscous damper.” 8th Asia Conference on Earthquake Engineering, Taipei, Taiwan.
3. **Chang, C. M.** and Liu, C. Y. (2022). “Design and experimental verification of geometrically nonlinear viscous damper in seismic isolation for protection of essential equipment in buildings.” The 8th World Conference on Structural Control and Monitoring (8WCSCM), Orlando, FL, USA.
4. **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.
5. **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.
6. **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.

7. 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.
8. 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.
9. 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.
10. **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.
11. 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.
12. 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.
13. **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.
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17. 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.
18. 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.
19. 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.
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21. 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.
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23. 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.
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中文會議論文

1. 高子倫、宋冠諭、**張家銘**，2022，「軌道式幾何非線性旋轉型質量阻尼器於受地震下之建築物的研發與實驗驗證」，中華民國力學學會第四十六屆全國力學會議(CTAM2022)，高雄，臺灣，18-19 Nov. (長摘要)
2. 張庭維、嚴寬、**張家銘**，2022，「應用深度學習及電腦視覺於橋梁表面劣化檢測之架構」，中華民國力學學會第四十六屆全國力學會議 (CTAM2022)，高雄，臺灣，18-19 Nov. (長摘要)
3. 賴煜仁、楊卓諺、鍾立來、**張家銘**，2022，「偏心滾動隔震系統輔以凸面導軌之數值分析」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
4. 宋冠諭、**張家銘**，2022，「應用調諧質量阻尼與慣質於受震建築之初步研究」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
5. 鄭棋、**張家銘**，2022，「以狀態空間積分法分析車橋之動態互制效應」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
6. 許筠曼、許舜翔、陳宗斌、**張家銘**，2022，「基於深度學習模型執行目視建築結構偵測之研究」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
7. 張庭維、吳庭諺、許舜翔、**張家銘**，2022，「應用深度學習及電腦視覺於橋梁表面劣化檢測」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)

8. 劉倢妤、**張家銘**，2022，「具斜交黏滯阻尼器之幾何非線性隔震系統」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
9. 林禹齊、**張家銘**，2022，「以慣質為基底之消能裝置裝置於基底隔震系統」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
10. 莊奕婕、**張家銘**，2022，「改良式資料型隨機子空間系統識別」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
11. 洪昊天、許舜翔、**張家銘**，2022，「結合深度學習模型與空間定位於建築物及室內結構劣化辨識」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
12. 巫宜謙、**張家銘**、楊卓諺，2022，「鉛心橡膠支承之基底隔震建築行為研究：考慮剪切、撓曲與軸向複合作用」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
13. 高子倫、**張家銘**，2022，「軌道式幾何非線性旋轉型質量阻尼器於受地震下之建築物的研發與實驗驗證」，第十六屆結構工程及第六屆地震工程研討會，新北市，臺灣，24-26 Aug. (長摘要)
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
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25. 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.

26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. **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.
35. **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.
36. 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.
37. **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	

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	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; Jason McCormick; Sherif El-Tawil (2022, Jun). Prediction of Seismic collapse behavior of deep steel columns using Machine learning. *Structures*, 40, 163-175.
2. 蘇于琪、汪向榮、張文忠、林子剛、林正洪、吳東諭、張國鎮、陳東陽（2022 年 09 月）。地震超材料的隔減震技術。中國土木水利工程學刊，37(3), 66-80。國科會：110-2221-E-011-033-MY3。
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

研討會論文(Conference Papers)

1. Chao-Sheng Hung; Tung-Yu Wu; Chun-Sheng Lee; Yin-Nan Huang (2022, Nov). Development and Evaluation of Virtual Reality-Based Education Tools on Structural Mechanics. 22nd International Conference on Construction Applications of Virtual Reality, Seoul, South Korea. 本人為通訊作者.

2. Hsuan-Chieh Wang; Tung-Yu Wu (2022, Jul). Collapse Assessment of Steel Buildings with Deep Columns under Tri-directional Seismic Excitations. 15th World Congress on Computational Mechanics & 8th Asian Pacific Congress on Computational Mechanics, Yokohama, Japan. 本人為通訊作者.
3. Omar A. Sediek; Tung-Yu Wu; Jason McCormick; Sherif El-Tawil (2022, Jul). Classification of Seismic Failure Modes of Deep Steel Columns Using Machine Learning. 15th World Congress on Computational Mechanics & 8th Asian Pacific Congress on Computational Mechanics, Yokohama, Japan.
4. Tung-Yu Wu; Omar A. Sediek; Ting-Hao Chang (2022, Jun). Collapse Fragility of Steel Special Moment Frames with Initial Geometric Imperfections. 12th National Conf. on Earthquake Engineering, Salt Lake City, UT, USA. 本人為第一作者、通訊作者.
5. 李俊昇、吳日騰、吳東諭（2022 年 11 月）。以 Google 街景建置具有隱私之都會建物特徵辨識系統。中華民國力學學會第四十六屆全國力學會議，高雄，台灣。
6. 汪向榮、吳庭雅、朱鴻瑋、許巧臻、張國鎮、吳東諭、林子剛、陳家漢（2022 年 11 月）。亞波長共振地震超材料結構之分析與試驗研究。中華民國力學學會第四十六屆全國力學會議，高雄，台灣。
7. 吳庭雅、許巧臻、朱鴻瑋、陳家漢、吳東諭、張國鎮、汪向榮（2022 年 08 月）。亞波長共振地震超材料結構之試驗。中華民國第十六屆結構工程研討會暨第六屆地震工程研討會，台北，台灣。
8. 許巧臻、吳庭雅、朱鴻瑋、陳家漢、吳東諭、張國鎮、汪向榮（2022 年 08 月）。亞波長共振地震超材料結構之分析研究。中華民國第十六屆結構工程研討會暨第六屆地震工程研討會，台北，台灣。
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Hydroinformatics, Artificial Intelligence, Stochastic Hydrology and Hydraulics, Rainfall and Flood Forecasting, Computational Hydraulics

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8. Shih KC, Chang MJ, Chen PA, Lin GF, 2019, Comparison of machine learning methodologies for hourly reservoir inflow forecasting, The 16th Annual Meeting of the Asia Oceania Geosciences Society (AOGS 2019), Singapore.
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(A) 期刊論文

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4. 李鴻源、張倉榮、賴進松、譚義績、林志平，2019、「水庫庫容永續技術之研發應用-水庫庫容永續技術之研發應用(3/3)」，科技部。
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Debris Flow, Environmental Fluid Mechanics, Wave Dynamics

期刊論文((Journal Paper)

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6. Wei S.C.*, Liu K.F., Yin H.Y., Lin C.L. (2018) Detecting Debris Flow Using Ground Vibration Signal. The 16th International Symposium on Geo-disaster Reduction, Aug. 27-31,

2018, Strasbourg, France.

7. Wei S.C.*, Liou J.W., Liu K.F. (2018) Grain-size Distributions Based on Automatic Image Processing. The 16th International Symposium on Geo-disaster Reduction, Aug. 27-31, 2018, Strasbourg, France.
8. Li P.C., Wei S.C.*, Liu K.F. (2018) Rheological Parameters Calibration for Unsteady Mud Flows in Concentric Cylinder Viscometer. The 16th International Symposium on Geo-disaster Reduction, Aug. 27-31, 2018, Strasbourg, France.
9. Liu K.F., Wei S.C., Yin H.Y., Lin C.L. (2018) Debris flow detection with geophones and video camera. 5th International Debris Flow Workshop & Symposium on Silk Roads Disaster Mitigation, Nov. 5-6, 2018 Beijing, China. **(Keynote)**
10. Wei S.C.*, Li P.C., Liu K.F. (2018) Transient Behavior of Bingham Fluid in Concentric Cylinder Viscometer. 5th International Debris Flow Workshop & Symposium on Silk Roads Disaster Mitigation, Nov. 5-6, 2018 Beijing, China. (Young Oral-report Award)

專書專章 (2018-2022)

1. Liu，K.F.，L.T. Kuo and S.H. Wei (2021) Debris Flow Detection Using a Video Camera，Understanding and Reducing Landslide Disaster Risk pp 141-147
2. Liu K.F.*, Kuo T.I., Wei S.C.(2020) Debris flow detection using a video camera. In (Sassa K. et al. ed) Understanding and Reducing Landslide Disaster Risk, 2, 305-413
3. Wu, Y.-H., Liu, K.F., Chen, Y.C., Chiu, Y.J., & Shih, S.S. (2018). TXT-tool 3.886-1.2: Simulation of mass movement in a large-scale watershed. In (Sassa K. eds.) Landslide Dynamics: ISDR-ICL Landslide Interactive Teaching Tools, 2, 251-262.
4. Liu, K.F., & Wu, Y.-H. (2018). TXT-tool 3.886-1.1: Debris-2D Tutorial. In (Sassa K. eds.) Landslide Dynamics: ISDR-ICL Landslide Teaching Tools, 2, 181-189.

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Experimental and Computational Fluid Mechanics, River Hydraulics

A.期刊論文 (Journal Papers)

1. Chen, T.Y.K., Capart H. (2022) Computational morphology of debris and alluvial fans on irregular terrain using the visibility polygon. *Computers and Geosciences*, *169*, art. no. 105228 (SCI).
2. Young, D.L., Li, J.-S., Capart, H., Chu, C.-R. (2022) Velocity measurements of vortex structures induced by sphere/wall interaction. *Experiments in Fluids*, *63*, art. no. 170 (SCI).
3. Chen, T.Y.K., Hung, C.-Y., Chiang, Y.C., Hsieh, M.-L., Capart, H. (2022) A stochastic model of geomorphic risk due to episodic river aggradation and degradation. *Engineering Geology*, *309*, art. no. 106845 (SCI).
4. Young, D.L., Lin, Y.C., Capart, H., Chu, C.-R. (2022) Vortex structures around two colliding spheres at high Reynolds number. *International Journal of Multiphase Flow*, *157*, art. no. 104246 (SCI).
5. Chen, T.Y.K., and Capart, H. (2020) Kinematic wave solutions for dam-break floods in non-uniform valleys. *Journal of Hydrology*, *582*, art. no. 124381 (Impact Factor = 5.722).
6. Ni, W.-J., and Capart, H. (2018) Stresses and Drag in Turbulent Bed Load From Refractive Index-Matched Experiments. *Geophysical Research Letters*, *45*, 7000-7009 (Impact factor = 4.720).
7. Hung, C.-Y., Aussillous, P., and Capart, H. (2018) Granular surface avalanching induced by drainage from a narrow silo. *Journal of Fluid Mechanics*, *856,* 444-469 (Impact factor = 3.627).

B.研討會論文(Conference Papers)

1. Ni, W.-J., and Capart, H. (2021) Lateral boundary influence on turbulent bed-load flows from refractive-index-matched experiments. Keynote Oral Presentation, Thematic Session on Granular Materials and Flows, *ICTAM 2020+1 International Congress on Theoretical and Applied Mechanics*, Milan, Italy, August 24, 2021.

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不確定性分析、風險評估、隨機過程

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

期刊論文 Refereed Journal Publications (* denoting corresponding author)

1. Kumbhakar, M. and Tsai, C. W.* (2022, Dec). A Probabilistic Model on Streamwise Velocity Profile in Open Channels Using Tsallis Relative Entropy Theory. Chaos, Solitons and Fractals. (SCI).
2. Tsai, C. W.* , Chiang, C-H., and Shen, S. W. (2022, Dec). Probabilistic Eutrophication Risk Mapping in Response to Reservoir Remediation. Journal of Hydrology: Regional Studies, Volume 44, December 2022, 101213. (SCI)
3. K-T Wu , C. W. Tsai* , and M-J Wu (2022, May). Probabilistic Characterization of Sweep and Ejection Events in Turbulent Flows and its Implications on Sediment Transport. Water Resources Research. (SCI).
4. Ming-Liang Lin, Christina W. Tsai* and Chun-Kuang Chen (2021, Dec). Daily Maximum Temperature Forecasting in Changing Climate Using A Hybrid of Multi-dimensional Complementary Ensemble Empirical Mode Decomposition and Radial Basis Function Neural Network . *Journal of Hydrology: Regional Studies*. 本人為通訊作者. (SCI)
5. Tsai, C.W.*, Yeh, T.-G., Y. Hsu, Wu, K.-T., and Liu, W.J. (2021, Jun). Risk analysis of reservoir sedimentation under non-stationary flows. *Journal of Flood Risk Management* , 14(2), e12756. MOST 104-2628-E-002-011-MY3. 本人為第 一作者、通訊作者. (SCI)
6. C C-H Liu, C. W. Tsai * and Y-Y Huang (2021, May). Development of a Backward-Forward Stochastic Particle Tracking Model for Identification of Probable Sedimentation Sources in Open Channel Flow . *Mathematics*. MOST 107-2628-E-002-002-MY3. 本人為通訊作者. (SCI)
7. Tsai, C.W.*, Huang, S-H., Hung, S.Y. (2021, Mar). Incorporating the Memory Effect of Turbulence Structures Into Suspended Sediment Transport Modeling. *Water Resources Research*, 57(3), e2020WR028475. MOST 107-2628-E-002- 002-MY3. 本人為第一作者、通訊作者. (SCI)
8. Huang, C.-H., Tsai, C.W.*, Mousavi, S.M. (2021, Feb). Quantification of probabilistic concentrations for mixed-size sediment particles in open channel flow. *Stochastic Environmental*

Research and Risk Assessment, 35 (2), 419-435. MOST 104-2628-E-002-011-MY3. 本人為通訊作者. (SCI)

9. C-H Huang , C W. Tsai* , and K-T Wu (2020, Oct). Estimation of near-bed sediment concentrations in turbulent flow beyond normality. *Chaos, Solitons and Fractals*, 139, 109955. MOST 104-2628-E-002-011-MY3. 本人為通訊作者 . (SCI)
10. G Zhu, M. C. Chou*, and C. W. Tsai (2020, Jul). Lessons Learned from the COVID-19 Pandemic Exposing the Shortcomings of Current Supply Chain Operations: A Long-Term Prescriptive Offering. *Sustainability*, 12 (14), 5858. MOST 108-2221-E-002-011-MY3. (SCI)
11. C. W. Tsai*, Y-R Hsiao, M-L Lin, and Y. Hsu (2020, Jun). Development of a noise-assisted multivariate empirical mode decomposition framework for characterizing PM 2.5 air pollution in Taiwan and its relation to hydro- meteorological factors. *Environment International*, 139, 105669. MOST 104-2628-E-002-011-MY3. 本人為 第一作者、通訊作者. (SCI)
12. Hester, E.*, Lin, A. and Tsai, C. (2020, Mar). Effect of Floodplain Restoration on Photolytic Removal of Pharmaceuticals. *Environmental Science and Technology*, 54, 6, 3278 – 3287. (SCI)
13. C. W. Tsai*, S. Y. Hung, and T-H Wu (2020, Feb). Stochastic sediment transport: anomalous diffusions and random movement. *Stochastic Environmental Research and Risk Assessment*, 34, pages 397 – 413. MOST 107-2628-E-002-002- MY3. 本人為第一作者、通訊作者. (SCI)
14. C W. Tsai* and S-H Huang (2019, Jul). Modeling Suspended Sediment Transport Under Influence of Turbulence Ejection and Sweep Events. *Water Resources Research*, 55 (7), 5379-5393. MOST 104-2628-E-002-011-MY3. 本人為第一作者、通訊作者. (SCI)
15. 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)
16. 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)
17. 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)
18. 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)

19. 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)

研討會論文

International Conferences

1. Tung, Y.-J and Tsai, C. W. (2022): Spatiotemporal Analysis of the Influential Factors and Potential Harms of Wildfire in Taiwan, AGU Fall Meeting; 2022 December 12-16; Chicago, IL. Abstract ID: 1192833.
2. Chiu, Yu-Kai and Tsai, C. W. (2022): Investigation into the correlations of meteorological factors, acid rain compositions, and GHGs by EMD-based algorithm to achieve carbon neutrality in Taiwan, AGU Fall Meeting; 2022 December 12-16; Chicago, IL. Abstract ID: 1193123.
3. Lin, S.-W. and Tsai, C. W. (2022): Simulation of Stochastic Sediment Transport Considering the influence of Energy Cascade Process and Intermittency Singapore, KKHTCNN 2022, National University of Singapore, Singapore, 17-19 November 2022, H-1.
4. Shen, Stanley W. and Tsai, C. W. (2022): Path-dependent stochastic sediment particle transport analysis: Application Malliavin calculus to resuspension mechanism, Singapore, KKHTCNN 2022, National University of Singapore, Singapore, 17-19 November 2022, H-2. (Outstanding student paper award in the conference)
5. Chiu, Yu-Kai and Tsai, C. W. (2022): Carbon Footprint of Water Consumption in a Changing Climate, Singapore, KKHTCNN 2022, National University of Singapore, Singapore, 17-19 November 2022, CNS-3.
6. Tung, Y.-J and Tsai, C. W. (2022): Spatiotemporal Analysis of the Causes and Effects of Wildfire by Landsat Imagery and in situ Data: Case studies of Taiwan and California, USA, EGU General Assembly 2022, online, 23–27 May 2022, EGU22-6999, https://doi.org/10.5194/egusphere-egu22-6999, 2022.
7. Wu, M. J. and Tsai, C. W. (2022): Stochastic sediment transport modeling under the effects of intermittency and anisotropy of turbulent flow, EGU General Assembly 2022, online, 23–27 May 2022, EGU22-7008, https://doi.org/10.5194/egusphere-egu22-7008, 2022.
8. Chen, C.-K. and Tsai, C. W.: Aeolian River Dust in Central and Southern Taiwan Rivers: Spatial-Temporal Characterization and Public Health Implication, EGU General Assembly 2022, online, 23–27 May 2022, EGU22-7031, https://doi.org/10.5194/egusphere-egu22-7031, 2022.
9. Hung, S. Y., & Tsai, C. W. (2022). Stochastic Suspended Sediment Transport with Memories. ICHE World Congress, Izmir, Turkey, 26-27 May, 2022.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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

19. 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.

20. 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.

21. 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.
22. 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.
23. 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
24. 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
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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
32. 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.
33. 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.

34. 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.

35. 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.

Domestic Conferences

1. 1. Tung, Y.-J and Tsai, C. W. (2022): Spatiotemporal Analysis of Wildfire Occurrences in Taiwan and California, USA, 2022 Soil Hydrology and Water Resources Management Modeling Summit, Taichung, Taiwan, 19-20 March 2022.

2. Wu, M. J. and Tsai, C. W. (2022): Incorporating the Influences of Intermittency and Anisotropy of Turbulent Flow into Stochastic Sediment Transport Modeling, 2022 Soil Hydrology and Water Resources Management Modeling Summit, Taichung, Taiwan, 19-20 March 2022. (1st place in student paper competition)

3. Chen, C.-K. and Tsai, C. W. (2022): Spatial-Temporal Characterization of Aeolian River Dust in Central and Southern Taiwan Rivers based on Improved Complete Ensemble Empirical Mode Decomposition with Adaptive Noise, 2022 Soil Hydrology and Water Resources Management Modeling Summit, Taichung, Taiwan, 19-20 March 2022. (2nd place in student paper competition)

4. Hung, S. Y., & Tsai, C. W. (2021). Correlated Stochastic Sediment Transport in Open Channel Flows. 2021 Conference on Computer Applications in Civil and Hydraulic Engineering, Virtual Online Taiwan, 30-31 August 2021. (Outstanding student paper award in the conference)

5. Tang, C.-H. & Tsai, C. W. (2021). Spatiotemporal Characteristics, Trend and Variability of Drought events in Response to Hydro-Meteorological Changes for Reservoirs in Taiwan. 2021 Conference on Computer Applications in Civil and Hydraulic Engineering, Virtual Online Taiwan, 30-31 August 2021.

6. Huang, Y.-Y. & Tsai, C. W. (2021). Stochastic Sediment Transport in Turbulent Boundary Layers Under the Influence of Attached Eddies: Concentration Profiles and Anomalous Diffusion. 2021 Conference on Computer Applications in Civil and Hydraulic Engineering, Virtual Online Taiwan, 30-31 August 2021.

7. Liu, W.-J. & Tsai, C. W. (2021). Incorporating Backward-forward Stochastic Particle Tracking Model into the EFDC model for Probable Sedimentation Source identification in Typhoon events. 2021 Conference on Computer Applications in Civil and Hydraulic Engineering, Virtual Online Taiwan, 30-31 August 2021.

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Hydro-Meteorology, Hill-Slope Hydrology, Statistical Methods in Hydrology and Meteorology, Flood Forecasting

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。

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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.

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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.*, Liu, C.H., Nien, J.H. (2022, Dec). In-river weir effects on the alteration of flow regime and regarding structural stream habitat. *Journal of Hydrology*, 615, 128670. (**SCI**, 11/138, ENGINEERING, CIVIL). MOST 110-2621-M-002-009. 本人為第一作者、通訊作者.
2. Shih, S.S.*, Huang, Z.Z., Hsu, Y.W. (2022, Dec). Nature-based solutions on floodplain restoration with coupled propagule dispersal simulation and stepping-stone approach to predict mangrove encroachment in an estuary. *Science of The Total Environment*, 851, Part 1, 158097. (**SCI**, 26/279, ENVIRONMENTAL SCIENCES). MOST 110-2621-M-002-009. 本人為第一作者、通訊作者.
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Open channel, Sediment transport, Hydrometric measurement

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4. 周家蓓、曲遠綺，由機場跑道抗滑檢測值討論鋪面紋理狀況，第二十一屆鋪面工程學術研討會暨第三屆永續與創新基礎建設國際研討會，2021 年 10 月 29 日。

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(C) 技術報告(Technical reports)

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2. 周家蓓主持，陳艾勳協同主持，「路面平整度績效檢測增能計畫」，內政部營建署委託研究，109 年 2 月。
3. 周家蓓主持，「提升道路標線夜間與潮溼狀態下之反光性能與發展 VR 於檢測管理應用」，科技部研究計畫，107 年 8 月~110 年 7 月。（執行中）
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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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Traffic Engineering, Traffic Simulation & Control, Traffic Safety & Design

期刊論文 (Journal Papers)

A1. Hsu, TP (Hsu, Tien-Pen) [1] ; Wu, YW (Wu, Yuan-Wei) [1] ; Chen, AY (Chen, Albert Y.) [1], "Temporal stability of associations between crash characteristics: A multiple correspondence analysis" *Accident Analysis And Prevention*, 168 (106590), Apr. 2022 (SCI)

A2. Hsu, TP (Hsu, Tien-Pen) [1] ; Wen, KL (Wen, Ku-Lin) [1], "Using multinomial regression to explore the spatial factors affecting left-turn oncoming accidents involving motorcycles" *Traffic Injury Prevention*, 23, 10.1080/15389588.2021.2009115.

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B1. Hsu, Tien-Pen; Ming-Wei Chang, Ku-Lin Wen,(2019, Sep). Survival Analysis of Accident Occurrence After Traffic Violation. *Proceeding of Eastern Asia Society for Transportation Studie*s, Sri Lanka, Sept, 2019

B2. Hsu, Tien-Pen; Hsiu-Yuan Chen, Hsin-Hsuan Wu, Ku-Lin Wen, (2019, Sep). Using Survival Theory to Investigate the Characteristics of Violation and Accident Occurrence of Motorcyclist and Car Driver. Eastern Asia Society for Transportation Studies. *Proceeding of Eastern Asia Society for Transportation Studie*s, Sri Lanka, Sept, 2019

B3. Hsu, Tien-Pen; Liu, Chin-Hung, Hsiao, Wei-Lun; Liao, Yu-Ting; Wang, Muhan; Liu, Chien-Pang; Effect of V2X Motorcycle safety warning system on approaching speed at intersection, *Proceeding of ITS World Congress*, Singapore, Oct. 2019.

B4. Hsu, Tien-Pen; Zhang, Taiyi; Hsiao, Wei-Lun ; Prediction Model of the Trajectory of Motorcycle Movement for V2V Collison Avoidance System at Intersection, Proceeding of ITS world congress, Singapore, Oct. 2019

B5. Hsu, Tien-Pen; Hsiao, Wei-Lun; Ho, Wan-Ching; Chang, Ju-Pin, Comparative Analysis of

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研討會論文(中文)

C1 許添本,溫谷琳,程楷祐,李炘哲, 非號誌化路口標誌標線設計與機動車輛減速效益分析。中華民國運輸學會 2019 年學術論文研討會，2019 年 12 月。

C2 許添本、黃郁倫，號誌時制設計適用之機車小客車當量值分析，中華民國運輸學會 2019 年學術論文研討會，2019 年 12 月。

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

C4 許添本、蔡牧融、張開國、孔垂昌，非號誌化路口肇事特性與改善策略研擬，中華民國運輸學會 2019 年學術論文研討會，2019 年 12 月。

C5 許添本，溫谷琳，程楷祐，李炘哲，非號誌化路口標誌標線設計與機動車輛減速效益分析，中華民國運輸學會 2019 年學術論文研討會，2019 年 12 月。

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C10 許添本、徐喬琦, 輕軌優先號誌最佳偵測器位置之研究, 中華民國運輸學會學術論文研討會, 2018, 12 月

C11 許添本、陳俊嘉, 匝道與地面道路號誌最佳化協控模式之研究, 中華民國運輸學會學術論文研討會, 2018, 12 月

C12 許添本、賴朝睿, 右轉車輛與行人同一時相對混合直右車道飽和流率之影響分析與改善策略評估，中華民國運輸學會學術論文研討會, 2018, 12 月

C13 許添本, 林瑩潔, 交叉口右轉側撞之接受間距與交通衝突參數特性之研究, 中華民國運輸學會學術論文研討會, 2018, 12 月

C14 許添本、趙士淵, 以存活分析評估防撞警示系統績效，中華民國運輸學會學術論文研

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

C16 許添本、郭岱儒，交叉口行人兩段式穿越號誌最佳化模式，中華民國運輸學會 2018 年學術論文研討會，2018 年 12 月。

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C18 許添本，許聿廷，蕭唯倫，張太乙，湯和家，李芊以肇事與車流軌跡定義無號誌交叉口交叉撞車聯網功能情境, 中華民國運輸學會 2018 年學術論文研討會,2018 年 12 月。

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C20 許添本,溫谷琳, 林瑩潔。應用類神經網路探討交叉口左轉穿越側撞之肇事因子。中華民國運輸學會 106 年學術論文研討會，2017 年 12 月 7~8 日，PP.1-21。

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C27 許添本, 溫谷琳, 張哲寧。應用決策樹於開放第三車道行駛機車管制之研究。中華民國運輸學會 105 年學術論文研討會，2016 年 12 月 8~9, PP.234-251

C28 許添本, 溫谷琳, 張哲寧。應用完全貝氏法探討機車行駛第三車道肇事因子之研究。中華民國運輸學會 105 年學術論文研討會，2016 年 12 月 8~9 日，PP.252-269。

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C31 許添本、蕭唯倫、李芊,汽機車右轉側撞車路整合防撞策略，中華民國運輸學會 105 年學術論文研討會，2016 年 12 月 8~9 日，PP.244-261。

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A. 期刊論文 (Journal Papers)

a. SCI/SSCI 期刊論文

1. **Chu, J. C.***, Lin, H.-C., Liao, F.-Y., and Yu, Y.-H., (2022) Dynamic repositioning problem of dockless electric scooter sharing systems, Transportation Letters, https://doi.org/10.1080/19427867.2022.2129209 (SCI).
2. SUNG, Y.-W., **Chu, J. C.***, CHANG, Y.-J., YEH, J.-C., and CHOU, Y.-H. (2022), Optimizing Mix of Heterogeneous Buses and Chargers in Electric Bus Scheduling Problems, Simulation Modelling Practice and Theory, 119, 102584 (SCI).
3. **Chu, J. C.***, Chen, A. Y., and Shih, H.-H. (2022) Stochastic Programming Model for Integrating Bus Network Design and Dial-a-ride Scheduling, Transportation Letters, 14(3), 245-257 (SCI).
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7. Chu, J. C.* and Huang, K.-H. (2018, Mar). Mathematical programming framework for modeling and comparing network-level pavement maintenance strategies. *Transportation Research Part B*, 109, 1-25. (SSCI, 2020: 4/33, Transportation). MOST 105-2628-E-002-004-MY3. 本人為第一作者、通訊作者.
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b. TSSCI 期刊論文

1.朱致遠、宋奕緯 *、施安隆（ 2021年09月）。公車路網即時滯站與速度控制策略之最佳化與模擬研究。運輸學刊，33(3), 247-284。（TSSCI）。本人為第一作者。

2.朱致遠、黃耀國*、魏妤庭、施安隆（2021年03月）。中觀行人模式於大規模疏散模擬之應用。運輸學刊，33(1), 1 - 27。（ TSSCI）。科技部： 108-2628-E002-003-MY3。本人為第一作者。

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

B. 研討會論文 (Conference Papers)

a.國外會議論文

1. Lan-Hsin Tseng, Yi-Chen Chou, and **James C. Chu**, Combining Fixed-Route Buses and Truck-Drone Delivery For Freight Logistics in Rural Areas, The 33rd KKHTCNN Symposium on Civil Engineering, Singapore, November 17-18 2022 (presentation only)
2. An-Ni Chang , Min-Xuan Huang, and **James C. Chu**, Optimization of Truck-Drone Delivery Considering En Route Operations, The 33rd KKHTCNN Symposium on Civil Engineering, Singapore, November 17-18 2022 (presentation only)
3. An-Long Shih, Chih-Yu Liu and **James C. Chu**, Optimization and simulation of real-time holding and speed control strategies in a bus network, The 33rd KKHTCNN Symposium on Civil Engineering, Singapore, November 17-18 2022 (presentation only)
4. **Chu, J. C.**, Location Optimization of Battery Swapping Stations for Electric Scooters, 3rd International Symposium on Infrastructure Asset Management (SIAM3), Abu Dhabi, United Arab Emirates, Mar. 31-Apr. 1, 2019
5. Yang, S.-K., **Chu, J. C.**, Chou, Y.-H., Wang, M.-H., Liu, C.-P. and Xiao, Y.-A., Comparison of solution methods of dial-a-ride problems for rural areas, The Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.
6. Yeh, J.-C., **Chu, J. C.**, Chou, Y.-H., Huang, H.-P., and Chang, Y.-J., Scheduling and Charging Optimization of Electric Buses, The Thirty-Second KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, Oct. 24-26, 2019.
7. 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.
8. 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.
9. 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.

10. 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.
11. 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.
12. 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.
13. 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.
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17. 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.

b.國內會議論文

1. Li, C.-W., Chu, J. C., and Lin, H.-C., Optimization of Temporary Bus Network Adjustment, 2022 International Conference and Annual Meeting of Chinese Institute of Transportation, Keelung City, Taiwan, Dec. 1-3, 2022 (in Chinese).
2. Tsai, C.-S., Sung, Y.-W., and **Chu, J. C.**, Vehicle Routing Problem Considering Failed Deliveries and Collection-and-Delivery Points, 2021 International Conference and Annual Meeting of Chinese Institute of Transportation, Taipei City, Taiwan, Dec. 2-3, 2021.
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Annual Meeting of Chinese Institute of Transportation, Tainan City, Taiwan, Dec. 3-4, 2020 (in Chinese).

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5. 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).
6. 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).
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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. Tseng, PY (Tseng, Po-Yen) [1] ; Lin, JJ (Lin, Jacob J.) [1] ; Chan, YC (Chan, Ying-Chieh) [1] ; Chen, AY (Chen, Albert Y.) [1] (2022) “Real-time indoor localization with visual SLAM for in-building emergency response” Automation In Contruction, 140 (104319).
2. Chou, CC (Chou, Chang-Chi) [1] , [4] ; Chiang, WC (Chiang, Wen-Chu) [2] , [3] , [5] , [6] ; Chen, AY (Chen, Albert Y.) [1] , [7] (2022) “Emergency medical response in mass casualty incidents considering the traffic congestions in proximity on-site and hospital delays” Transportation Research E-Logistic And Transportation Review, 158 (102591).
3. Lee, YC(Lee, Yu-Ching)[1];Chen, YS(Chen, Yu-Shih)[2];Chen, AY(Chen, Albert Y.)[2] (2022) “Lagrangian dual decomposition for the ambulance relocation and routing considering stochastic demand with the truncated Poisson” Transportation Reseaarch Part B-Methodological, 157, 10.1016/j.trb.2021.12.016.
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6. 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]
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8. 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]

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10. Lin[#], T.-H., Chen[*], A. Y. and S.-H. Hsieh (2020) "Temporal Image Analytics for Abnormal Construction Activity Identification." Automation in Construction, Accepted (SCI).
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12. 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)
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19. 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).

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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.

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(A) 期刊論文(Journal Papers) (*: 通訊作者)

a. SCI/SSCI 期刊論文

1. Sun, MC (Sun, Min-Ci) [1] ; Sakai, K (Sakai, Katsuya) [1] ; Chen, AY (Chen, Albert Y.) [1] ; Hsu, YT (Hsu, Yu-Ting) [1] (2022) “Location problems of vertical evacuation structures for dam-failure floods: Considering shelter-in-place and horizontal evacuation” *International Multidisciplinary*, 77, 103044.
2. Shen, CW(Shen, Chung-Wei)[1];Mao, MN(Mao, Mei-Neng)[2];Hsu, YT(Hsu, Yu-Ting)[2];Miralinaghi, M(Miralinaghi, Mohammad)[3] (2022) “Research on Features of Pedestrians Using Smartphones at Transit Stations Based on Social Force Model” *Transportation Research Record*, 2676 (10), 10.1177/03611981221090939.
3. Chou, CY(Chou, Chi-Ya)[1];Lin, SY(Lin, Szu-Yun)[1];Yang, CT(Yang, Cheng-Tao)[2];Hsu, YT(Hsu, Yu-Ting)[1] (2022) “Risk perception of earthquakes: Modeling conception of willingness to pay and prospect theory” *International Journal Of Disaster Risk Reduction*, 77, 103058.
4. 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).
5. **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.
6. 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.
7. 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.
8. 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.
9. 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.

10. 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
11. 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.
12. 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.
13. 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)。

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.

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

a. 國外會議論文

1. 翁瑎錡、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).

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]

(C) 技術報告

1. 許聿廷、薛宏毅、劉瑾易 (2021) 智慧型城市規劃模擬平台之設計與應用－基於多主體模擬平台預測社經變化與技術創新趨勢下之都市運輸系統發展，科技部/109-2621-M-002-014-。
2. 許聿廷、蕭鈞謙 (2020) 興建學生宿舍交通衝擊評估計畫，臺灣大學總務處。
3. 蘇育民、陳介豪、許聿廷、鄭鈞耀、周琪雅 (2020) 探討道路交通標線之防滑特性，交通部運輸研究所/MOTC-IOT-109-SDB010。
4. 水敬心、許聿廷、張瑞巖 (2020) YouBike 2.0 於臺灣大學校總區試辦期間營運績效 評估與需求分析，臺灣大學總務處。
5. 許聿廷、毛美能、倪英琢 (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。

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Construction Estimating & Scheduling, Project Performance Evaluation

期刊論文(Refereed Papers)

A. SCI 之期刊論文

1. Chen, WC (Chen, Wei-Cheng) [1] ; Tserng, HP (Tserng, H. Ping) [2] (2022), “Real-time individual workload management at tunnel worksite using wearable heart rate measurement devices” AUTOMATION IN CONSTRUCTION, Vol. 134, 104051.
2. Liu, TY (Liu, Tai-Yi) [1] ; Ho, SJ (Ho, Shiau-Jing) [2] ; Tserng, HP (Tserng, Hui-Ping) [2] ; Tzou, HK (Tzou, Hong-Kee) [1] (2022), “Using a Unique Retaining Method for Building Foundation Excavation: A Case Study on Sustainable Construction Methods and Circular Economy” BUILDINGS, Vol. 123,298.
3. 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)
4. 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)
5. 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)

B. 其他期刊論文

1. 周瑞生、歐昱辰、曾惠斌、陳瑞鈴、蔡綽芳、張人傑 (2019)，「臺灣私有建築物耐震評估補強經費之財務供需規劃暨其配套措施研議」，營建管理季刊。一百零八年，第 111 期，頁 16-38。
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.
8. 賈啟敏、曾惠斌(2021)，”政府採購法第 101 條第一項第六款之研究”，第 25 屆營建工程與管理學術研討會，2021 年 7 月 16 日.
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

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. 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。
7. 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。
8. 劉文遷，荷世平（2019年07月）。營建業導入區塊鏈技術之模型初探。第23屆營建工程與管理研討會，台中，台灣。科技部：106-2221-E-0002-038-MY3。
9. 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。
10. 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。
11. 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. Lin, TY (Lin, Tsung-Yung) ; Le, AV (Le, Anh-Vu) ; Chan, YC (Chan, Ying-Chieh) [1] (2022), "Evaluation of window view preference using quantitative and qualitative factors of window view content", Building and Environment, Vol. 213, 108886.
2. Tseng, P. Y., Lin, J. J., Chan, Y. C., and Chen, A. Y (2022), "Real-time indoor localization with visual SLAM for in-building emergency response.", Automation In Construction, Vol. 140, 104319.
3. 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)
4. 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)
5. 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)

研討會論文(Conference papers)

1. Lai, K.F., **Chan, Y. C.**, "Review of Construction Workspace Definition and Case Studies". The 37th International Symposium on Automation and Robotics in Construction (ISARC 2020 Online), Japan, October,2020
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
3. Do, C. T., Shen, H., **Chan, Y. C.**, and Liu, X. "Model Evaluation and Development for Global and Diffuse Luminous Efficacy Models through On-Site Measurement and Optimization Techniques" 2019 Building Simulation, Rome, Italy, September 2019,
4. Huang, L.T., Chiu, Y. Y., and **Chan, Y.C.** "The Design of Building Management Platform Based On Cloud Computing and Low-Cost Devices", 36th International Symposium on Automation and Robotics in Construction, May 2019
5. Chang, C. Y., and **Chan, Y. C**. "Computational Analysis of Cross Ventilation for Classrooms

with Operable Transom Windows, The 31th KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 2018

6. Do, C.T., and **Chan, Y.C.**, "Development of a New Framework for Daylighting Simulation with Dynamic Shading Devices", Proceedings of 5th High Performance Buildings Conference at Purdue, July 2018.
7. Chang, C.Y., and **Chan, Y.C.**, "Computational Analysis of Cross Ventilation for Spaces with Operable Transom Windows in Hot and Humid Climate", Proceedings of 5th High Performance Buildings Conference at Purdue, July 2018.

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Project Controls, Computer Vision, BIM, Lean Construction

期刊論文 (Journal Papers)

Refereed Academic Journals Published and Under Review

1. Wang, T. H., Lin, J.J., S. H. Hsieh (under review). Construction photos localization using deep learning with generative adversarial networks for data augmentation. Automation in Construction. 本人為通訊作者.
2. Wang, Y., Tang, P., Liu, K., Cai, J., Ren, R., Lin, J.J., Cai, H., Zhang, J., El-Gohary, N., Berges, M., Golparvar, M., (under review). Characterizing Data Sharing in Civil Infrastructure Engineering: Current Practice, Future Vision, Barriers, and Promotion Strategies. Journal of Computing in Civil Engineering.
3. Chuang, S.H., Lo, Y.H., Chi, N.W., Lin, J.J., Chen, C.S. (under review). On-site Rebar Spacing Inspection using Deep-learning-based Image Segmentation. Automation in Construction.
4. Tseng, P.Y., Chen A.Y., Lin, J.J. (under review). Real-Time Indoor Localization with Visual SLAM for Emergency Response. Automation in Construction.
5. Lin, J.J., and Golparvar-Fard, M. (under review). Fusing Deep Learning and Geometric Modeling for Computer Vision Driven Progress Monitoring on Construction Sites. Automation in Construction. 本人為第一作者、通訊作者.
6. Lin, J.J., and Golparvar-Fard, M. (under review). Predictive Schedule Analytics for Proactive Construction Project Control, Journal of Computing in Civil Engineering. 本人為第一作者、通訊作者.
7. Duong, H. and Lin J.J. (2022) Reality Model-based Facility Management Framework for Existing Building. Front. Built Environ. 815672. doi: 10.3389/fbuil.2022.815672 本人為通訊作者.
8. Lin, J. J., and Golparvar-Fard, M. (2021). “Visual and Virtual Production Management System for Proactive Project Controls.” Journal of Construction Engineering and Management, American Society of Civil Engineers (ASCE), 147(7), 04021058. 本人為第一作者、通訊作者. SCI
9. Lin, J. J., Ibrahim, A., Sarwade, S., and Golparvar-Fard, M. (2021). “Bridge Inspection with Aerial Robots: Automating the Entire Pipeline of Visual Data Capture, 3D Mapping, Defect Detection, Analysis, and Reporting.” Journal of Computing in Civil Engineering, American Society of Civil Engineers (ASCE), 35(2), 04020064. 本人為第一作者、通訊作者. SCI

專書論文 Book Chapter

1. Lin, J.J., Golparvar-Fard, M.. Construction Progress Monitoring Using Cyber Physical System. Cyber-Physical System in Construction.. 2020. 本人為第一作者、通訊作者.

2. Lin, J.J., Golparvar-Fard, M. . Visual and virtual progress monitoring in Construction 4.0. Construction 4.0: An Innovation Platform for the Built Environment (ISBN: 9780429398100). Abingdon, United Kingdom: Routledge. 2020. 本人為第一作者、通訊作者.

研討會論文（Conference Papers）

Refereed Conference Proceedings

1. Wang, T. H., Lin, J.J., S. H. Hsieh (2021). "Monocular and Stereo Camera Image Localization Framework Using Deep Learning for Construction Monitoring," Proceedings of the 25th Symposium on Construction Engineering and Management, Paper No. 94, July 16, 2021, Taipei, Taiwan. [Online] [Best Paper Award]
2. Pal, A., Lin, J.J., and S. H. Hsieh (2021). "Semantic Segmentation of Superpixels for Vision-based Automated Construction Progress Reporting," Proceedings of the 25th Symposium on Construction Engineering and Management, Paper No. 141, July 16, 2021, Taipei, Taiwan. [Online] [Best Paper Award] [MOST 109-2621-M-002-012; MOST 109-2622-E-002-027]
3. Pal, A., T. H. Wang, Lin, J.J., 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]
4. Yu, P.C. and Lin, J.J. (2021). "Framework of Using As-built Models to Simulate Energy Consumption for Existing Buildings," Proceedings of the 25th Symposium on Construction Engineering and Management, Paper No. 120, July 16, 2021, Taipei, Taiwan. [Online]
5. Hung,D. D. and Lin, J.J. (2021). "Using Image-based Point Cloud to Improve Facility Management Process of Existing Building," Proceedings of the 25th Symposium on Construction Engineering and Management, Paper No. 120, July 16, 2021, Taipei, Taiwan. [Online]
6. Wu, Y.R., Chuang K.Y., Lin, J.J. and H.P. Tserng (2021). "Incorporating lean principles into ISO19650 for information management in turnkey projects," Proceedings of the 25th Symposium on Construction Engineering and Management, Paper No. 120, July 16, 2021, Taipei, Taiwan. [Online]
7. Pal, A., Lin, J.J. and Hsieh, S-H. (2021). A Framework for Automated Daily Construction Progress Monitoring Leveraging Unordered Site Photographs, The 2021 ASCE International Conference on Computing in Civil Engineering (i3CE2021), Orlando, U.S., September 12-14, 2021.
8. Lin, J.J., Ibrahim, A., Sarwade, S., Golparvar-Fard, M., Nitta, Y., Moirkawa, H., Fukuchi, Y. (2020), Bridge Inspection with Aerial Robots and Computer Vision: A Japanese National Initiative. The 37th International Symposium on Automation and Robotics in Construction (ISARC). 本人為第一作者、通訊作者.
9. Lin, J.J., Lee, J. and Golparvar-Fard, M. (2019). Exploring the Potential of Image-based 3D Geometry and Appearance Reasoning for Automated Construction Progress Monitoring. The 2019 ASCE International Conference on Computing in Civil Engineering. 本人為第一作者、通訊作者.
10. Lin J.J., Golparvar-Fard M. (2018). Visual Data and Predictive Analytics for Proactive Project Controls on Construction Sites. EG-ICE 2018: 25th International Workshop on

Intelligent Computing in Engineering. 本人為第一作者、通訊作者.

專利(Patents)

1. Golparvar-Fard, M., Hoiem, D., Lin, J. J., Han, K., Degol, J. (2019). “Computation of point clouds and joint display of point clouds and building information models with project schedules for monitoring construction progress, productivity, and risk for delays”, U. S. Patent and Trademark Office (US20190325089A1)

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專長/ 災害風險分析、社區復原韌性與永續性分析、分佈式災害模擬、災害中個體行為模式及影響

Hazard risk analysis, Community sustainability and resilience, Distributed simulation of community response to disasters, Agent-based modeling of human behavior in disasters

期刊論文 (Journal Papers) (corresponding author*)

1. Chou, C.-Y., **Lin, S.-Y.**, Yang, C.-T., and Hsu, Y.-T.* (2022). Risk perception of earthquakes: modeling conception of willingness to pay and prospect theory. *International Journal of Disaster Risk Reduction*, 77: 103058. https://doi.org/10.1016/j.ijdrr.2022.103058 (SCIE)
2. Xu, L., **Lin, S.-Y**., Hlynka, A.W., Lu, H., Kamat, V.R.*, Menassa, C.C., El-Tawil, S., Prakash A., Spence, S.M.J., and McCormick, J. (2021). Distributed Simulation Platforms and Data Passing Tools for Natural Hazards Engineering: Reviews, Limitations, and Recommendations. *International Journal of Disaster Risk Science*, 12: 617–634. https://doi.org/10.1007/s13753-021-00361-7 (SCIE)
3. **Lin, S.-Y.*,** Hlynka, A.W., Xu, L., Lu, H., Sediek, O.A., El-Tawil, S., Kamat, V.R., McCormick, J., Menassa, C.C., Spence, S. M. J., Prakash A., and Aguirre, B. (2021). Simple Run-Time Infrastructure (SRTI): An Accessible Distributed Computing Platform for Interdisciplinary Simulation. *Journal of Computational Science*, 55: 101455. https://doi.org/10.1016/j.jocs.2021.101455 (SCIE)
4. **Lin, S.-Y**.*, El-Tawil, S., and Aguirre, B.E. (2020). Computational Simulation of Benefit Fraud and Community Resilience in the Wake of Disaster. *Natural Hazards Review*, 21(4): 04020039. https://doi.org/10.1061/(ASCE)NH.1527-6996.0000407 (SCIE, SSCI)
5. **Lin, S.-Y***. and El-Tawil, S. (2020). Time-Dependent Resilience Assessment of Seismic Damage and Restoration of Interdependent Lifeline Systems. *Journal of Infrastructure Systems*, 26(1): 04019040. https://doi.org/10.1061/(ASCE)IS.1943-555X.0000522 (SCIE)
6. **Lin, S.-Y**.*, Chuang, W.C., Xu, L., El-Tawil, S., Spence, S.M.J., Kamat, V.R., Menassa, C.C., and McCormick, J. (2019). Framework for Modeling Interdependent Effects in Natural Disasters: Application to Wind Engineering. *Journal of Structural Engineering*, 145(5): 04019025. https://doi.org/10.1061/(ASCE)ST.1943-541X.0002310 (SCIE)

研討會論文（Conference Papers）

1. Tsai, F.J. and **Lin, S.-Y.*** (2022). Deep Learning-based Post Disaster Road Assessment from Satellite Imagery. *The 33rd KKHTCNN Symposium on Civil Engineering, Singapore, November 17-18, 2022*.
2. Nieh, C-Y. and **Lin, S.-Y.*** (2022) Seismic Analysis of Natural Gas Network-Tainan Xinhua District. *The 26th Symposium on Construction Engineering and Management, SCEM2022, Taipei, Taiwan, July 22, 2022.*
3. Sim, L. and **Lin, S.-Y.*** (2022) Post Disaster Building Damage Assessment Using UAV Images. *The 26th Symposium on Construction Engineering and Management, SCEM2022, Taipei, Taiwan, July 22, 2022.* (Outstanding Paper Award)

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A. 期刊論文 (Journal Papers)

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其它期刊論文

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4. 謝尚賢(2022)，” 與全球分享臺灣 BIM 教育發展”，*營建知訊*，第 472 期，第 82-85 頁。
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11. 謝尚賢(2022)，” 與 AI 聊天機器人對談 AI 與 BIM”，*營建知訊*，第 479 期，第 57-64 頁。
12. 謝尚賢、張國儀（2021），”國際技能競賽首納 BIM 正式選拔培訓國手”，*營建知訊*，第 458 期，第 56-59 頁。
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15. 張國儀、謝尚賢（2021），”2021CCACHE 論壇：台灣 BIM 發展之國際化挑戰”，*營建知訊*，第 464 期，第 54-60 頁。

16. 謝尚賢（2021），”BIM 專業人員資格的全球化證照時代來臨”， *營建知訊*，第 465 期，第 72-76 頁。

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19. 柳儒錚、謝尚賢（2020），”透過案例演練學習 BIM：TEKLA 結構篇發行”，*營建知訊*，第 444 期，第 49-56 頁。

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2. Huang, L., S. H. Hsieh, Y. T. Chang, Y. P. Chu, and J. A. Chien (2022). "Teaching Smart City for Sustainable Guandu Plain in Taipei: A Reflection on Transdisciplinary Education," *Proceedings of the 28th International Sustainable Development Research Society Conference*, June 14-17, 2022, Stockholm and online, Sweden, 856-872.
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5. Song, J. C., T. H. Wu, Y. T. Chang, and S. H. Hsieh (2022). "Improving Usage Capacity of Shared Bikes for a More Sustainable Campus: A Case Study at National Taiwan University," *Proceedings of the 26th Symposium on Construction Engineering and Management*, Paper No. 160, July 22, 2022, Taoyuan, Taiwan. [Online] **[Best Paper Award]**
6. Tsai, W. L., J. J. Lin, and S. H. Hsieh (2022). "Construction Safety Inspection Framework Using Image Captioning," *Proceedings of the 26th Symposium on Construction Engineering and Management*, Paper No. 162, July 22, 2022, Taoyuan, Taiwan. [Online] [MOST 110-2622-E-002-039]

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11. Hsu, W. Y., T. H. Wu, B. Setiawan, C. C. Tandri, S. H. Hsieh, and W. T. Chang (2022). "A BIM-Based Cost Estimation Approach for The Aluminum Formwork System," *Proceedings of the 22nd International Conference on Construction Applications of Virtual Reality*, November 16-18, 2022, Seoul, South Korea, 1288-1291.

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17. 謝尚賢（2020），"以設計思考培育跨領域服務創新人才"，第 10 屆服務科學論壇，2020 年 9 月 3 日，高雄市，臺灣。 **[大會專題演講]**

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21. Vu, T. K. D., and S. H. Hsieh (2020). "Systematic Review of Organizational Change Management for BIM Implementation," Presented in *The International Conference on Construction Digitalisation for Sustainable Development (CDSD 2020)*, November 24-25, 2020, Hanoi, Vietnam. [Online]

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

1. 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.
2. 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：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

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：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

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

期刊論文 (Journal Papers)

#corresponding author

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2. C-H Yu#, B-Y Tseng, Z Yang, C-C Tung, E Zhao, Z-F Ren, S-S Yu, P-Y Chen, C-S Chen, M J Buehler# (2022), "Hierarchical Multiresolution Design of Bioinspired Structural Composites Using Progressive Reinforcement Learning," *Advanced Theory and Simulations*, **5**(11), 2200459. [SCI]
3. C-H Yu#, J-S Chen, Y-C Hsu, C-S Chen# (2022) "*De novo* multiscale method for nonequilibrium molecular dynamics," *Computational Materials Science*, **213**, 111636. [SCI]
4. L-H Kuo, J Uvah, C-S Chen# (2022) "Residual-Error Cross-Validation method for selecting a suitable shape parameter for RBF interpolation," *Engineering Analysis with Boundary Elements,* **143**, 331-339. [SCI]
5. C-S Chen, A. Naji, Y. Cao#, C-S Chen (2022) "Space–time localized polynomial basis functions for solving parabolic and hyperbolic equations," *International Journal of Computer Mathematics*, **99**(9), 1770-1784. [SCI]
6. A. Noorizadegan, C-S Chen#, D.L. Young#, C-S Chen (2022) "Effective condition number on the selection of the shape parameter of RBFs with fictitious point method," *Applied Numerical Mathematics*, **178**, 280-295. [SCI]
7. A. Noorizadegan, D.L. Young#, C-S Chen# (2022) "A novel local radial basis function collocation method for multi-dimensional piezoelectric problems," *Journal of Intelligent Material Systems and Structures*, **33**(12), 1574-1587. [SCI]
8. 紀乃文、莊仕杰、陳翊翔、陳鵬元、陳俊杉(2022) 應用影像語意分割技術於鋼筋間距查驗，土木水利，第49卷第1期，第27-31頁。

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10. 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]
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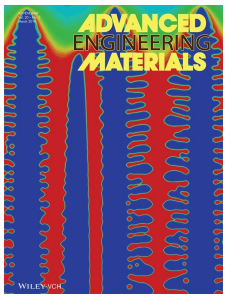

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Remote Sensing in Hydrometeorology, Urban Stormwater Management, Fractals and Geostatistics, Multi-Scale Data Merging, Stochastic Rainfall Modelling and Forecasting

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(A) 期刊論文 (Journal Paper) (*: 通訊作者)

a. SCI/SSCI 期刊論文

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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. Lo, K. Y., **Hsieh, I. Y. L.*** Artificial Intelligence Applications in Hourly Energy Use Intensity Prediction. 43rd IAEE International Conference, Tokyo, Japan, 2022.
2. Feng, Y. F., **Hsieh, I. Y. L.*** Location Planning for Solar Power Generation Using Artificial Intelligence. 43rd IAEE International Conference, Tokyo, Japan, 2022.

3. Chien, Y. H., **Hsieh, I. Y. L.*** Life Cycle Environmental and Cost Comparison of Scooters in Taiwan. 43rd IAEE International Conference, Tokyo, Japan, 2022.
4. **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.
5. 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.
6. **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.
7. **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.
8. **Hsieh, I. Y. L.**, & Green, W. H.* The future of electro mobility in China. 26th Intelligent Transportation Systems (ITS) World Congress, Singapore, 2019.
9. **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.
10. **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. 羅凱芸、**謝依芸***，建構智慧能源管理系統以加速低碳轉型：車輛到建築策略，2022年中華運輸學會年會暨國際論文研討會，臺灣，2022 年。
2. 簡元璽、**謝依芸***，電動機車有多貴？生命週期碳排放與成本評估工具開發，2022年中華運輸學會年會暨國際論文研討會，臺灣，2022 年。
3. 曾靖琇、簡元璽、**謝依芸***，乘用車電動化的生命週期碳排放與成本評估，2022年中華運輸學會年會暨國際論文研討會，臺灣，2022 年。
4. 黃瀚陞、**謝依芸***，電動交通車的環境效益與擁有成本分析：以臺灣大學為例，2022年中華運輸學會年會暨國際論文研討會，臺灣，2022 年。
5. 馮意凡、周敬淳、汪立本、**謝依芸***，人工智慧於太陽能發電潛力預測與選址評估之應用，中華民國能源經濟學會111年年會暨學術研討會，臺灣，2022 年。
6. 陳維軒、羅凱芸、曾暐畯、馮意凡、**謝依芸***，近零耗能建築於智慧電網結合太陽光電與電池儲能系統下的可行性研究，第 27 屆車輛工程學術研討會暨第 2 屆台灣智慧電動車及綠能科技研討會，臺灣，2022 年。

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。

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國際論文研討會，臺北，臺灣，2021 年。

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15. **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

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

期刊論文 (Journal Paper)

1. Wen Tang, Rih-Teng Wu, Mohammad R. Jahanshahi (2022). "Crack segmentation in high-resolution images using cascaded deep convolutional neural networks and Bayesian data fusion." *Smart Structures and Systems*, 29(1), 221-235. (SCI, EI)
2. Rih-Teng Wu, Mehdi Jokar, Mohammad R. Jahanshahi, Fabio Semperlotti (2022). "A physics-constrained deep learning based approach for acoustic inverse scattering problems." *Mechanical Systems and Signal Processing*, 164, 108190. (SCI, EI)
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8. Rih-Teng Wu, Mohammad R. Jahanshahi (2018). "Deep convolutional neural network for structural dynamic response estimation and system identification." *Journal of Engineering Mechanics*, 145(1), 04018125. (SCI, EI)
9. Rih-Teng Wu, Mohammad R. Jahanshahi (2018). "Data fusion approaches for structural health monitoring and system identification: past, present, and future." *Structural Health Monitoring*, DOI:10.1177/1475921718798769, in press. (SCI, EI)

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

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1. Lin, Y.T., Kan, Y.H., and Han, J.Y.* (2022) Efficient approach for autonomous facility inspection using UAV images, *J. Infrastruct. Syst.*, 28(2): 04022001, doi: 10.1061/(ASCE)IS.1943-555X.0000676. (SCI, EI)

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8. 洪維屏，林彥廷，甘翊萱，陳俊廷，林育銓，韓仁毓（2022）基於多時期無人機影像自動化對位改正及海港設施監測管理，*中國土木水利工程學刊*，（已接受 2022 年 11 月 4 日）。(EI)

9. 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, *J. Comput. Civ. Eng. – ASCE*, 35(5): 0000976, doi: 10.1061/(ASCE)CP.1943-5487.0000976. (SCI, EI)

10. 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）應用 AI 學習技術於坡地崩塌預測分析-以高雄市小林村為例，*土木水利*，第 48 卷第 2 期，第 48-56 頁。

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34. 楊明德、莊子毅、韓仁毓（2018）結合光學與紅外線熱影像正射鑲嵌處理，*航遙測學刊*，第二十三卷第二期，第 71-81 頁。

研討會論文 (Conference Papers)

1. Chen, Y. K., Lin, Y. R., Yen, H. Y., Chang, N. H., Lin, H. M., Han, J. Y., Yang, K. H., Chen, C. S., Wang, L. P., Cheng, H.K., and Wu, H. H. (2022) Integrating InSAR information and spatial-temporal factors in machine learning analysis for landslide prediction – a case study for Provincial Highway 18 area in Taiwan, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, accepted.

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3. 莫詒雯、韓仁毓（2022）基於機器學習之太陽輻射模型建立，第 40 屆測量及空間資訊研討會，9 月 4-5 日，臺灣台中市。

4. 林培宇、陳芳瓊、韓仁毓（2022）以機器學習方法探討影響地層下陷之關鍵因素，第 40 屆測量及空間資訊研討會，9 月 4-5 日，臺灣台中市。

5. 洪維屏、甘翊萱、林彥廷、韓仁毓（2022）基於多期無人機影像自動化對位改正分析，第 40 屆測量及空間資訊研討會，9 月 4-5 日，臺灣台中市。

6. 郭佳龍、韓仁毓（2022）以無人飛行載具影像技術於水利建造物之巡檢研究，第 40 屆測量及空間資訊研討會，9 月 4-5 日，臺灣台中市。

7. 呂奕篁、韓仁毓（2022）密集配瀝青混凝土鋪面孔隙率與熱行為之可測性分析，第 40 屆測量及空間資訊研討會，9 月 4-5 日，臺灣台中市。

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9. 洪維屏、甘翊萱、林育銓、韓仁毓（2022）基於實例分割之港區岸邊設施物件多時期影像自動化檢測，第 44 屆海洋工程研討會，11 月 17-18 日，臺灣高雄。

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期刊論文 (Journal Papers)

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