

CURRICULUM VITA

徐松圻 (Sung-Chi Hsu)

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EDUCATION

Doctor of Philosophy

Civil Engineering at The University of Texas at Austin, May 1996

Dissertation Title: "Stability and Failure Mechanisms of Slopes in Weak Rock Masses"

Advisor: Dr. Priscilla P. Nelson

Master of Science

Civil Engineering at The University of Texas at Austin, Aug. 1989

Thesis Title: "Material Properties Evaluation for the Marly Claystone and Chalk of the Upper Cretaceous Period in Central Texas"

Advisor: Dr. Priscilla P. Nelson

Bachelor of Science

Agricultural Engineering at National Taiwan University, June 1984

Grade ranked 1st of 32.

EXPERIENCE

2023/08-till now	Vice President , Chaoyang University of Technology
2015/08-2023/07	Dean of R&D Office , Chaoyang University of Technology
2006/08-2010/7	Chairman : Department of Construction Engineering, Chaoyang University of Technology
2007/07-till now	Professor : Chaoyang University of Technology
2004/08-2006/7	Secretary : College of Science and Engineering, Chaoyang University of Technology
8/1996-06/2007	Associate Professor : Chaoyang University of Technology
9/1993-8/1995	Graduate Research Assistant : The Bureau of Economic Geology of Univ. of Texas at Austin.
9/1991-9/1993	Graduate Research Assistant : The University of Texas at Austin Working with Dr. Roy E. Olson for The PB/MK Team on the Superconducting Super Collider (SSC) Project.
2/1989-9/1991	Graduate Research Assistant : The Bureau of Economic Geology, The University of Texas at Austin.
11/1991	Assistant : The University of Texas at Austin
1/1990-5/1990	Teaching Assistant : The University of Texas at Austin
8/1986-4/1987	Assistant Engineer : <u>I-Lan Water Resource & Irrigation Association</u> , Taiwan
7/1984-5/1986	Second Lieutenant Construction Officer : Marine Corps, Taiwan

HONORS and ORGANIZATIONAL ACTIVITIES

Professional Geotechnical Engineer

Member of The Phi Tau Phi Scholastic Honor Society of the Republic of China
Member of International Society of Rock Mechanics (ISRM)
Member of America Rock Mechanics Association (ARMA)
Member of Taiwan Geotechnical Society
Member of Chinese Taipei Tunneling Association
Member of Chinese Soil and Water Conservation Society
Member of The Institute of Engineering Education Taiwan (IEET)
Review Committee of Occupational Safety and Health Administration
Review Committee of Construction Safety for Hsinchu and Central Taiwan Science
Park
Editor of International Journal of Applied Science and Engineering
Review Committee of Examination of ROC
Review Committee of Ministry of Science and Technology, ROC
Taichung City Government Disaster Prevention Committee
Review Committee of the Water and Soil Conservation Bureau of the Executive Yuan
Ministry of Economic Affairs, State Council, Project Review Committee
Reviewer of Several major Journals

Major Research Interests

Geotechnical Engineering, Disaster Prevention, Engineering Geology,
Tunneling Engineering, Rock Engineering, Slope Stability

PUBLICATIONS

1. 期刊論文 Journal Paper

- Verma, Pratima, V Kumar, A Mittal, P Gupta, and **S-C Hsu** "Addressing strategic human resource management practices for TQM: the case of an Indian tire manufacturing company." *The TQM Journal* (2021). (Scopus)
- Verma, P., Kumar, V., Bhatt, P. C., Kumar Drave, V. A., **Hsu, S. C.**, Lai, K. K., & Pal, V. (2020). Industry 4.0 in Emerging Economies: Technological and Societal Challenges for Sustainability. In *Applications and Challenges of Maintenance and Safety Engineering in Industry 4.0* (pp. 31-48). IGI Global. (Scopus)
- Cheng, T. M., Hou, H. Y., Agrawal, D. C., Hsu, S. C., & Wu, H. T. (2020). DATA MINING THE CATEGORIES OF TEACHERS AND OFFERING PROMOTION STRATEGIES FOR THE MAINSTREAM-CASE OF A TECHNOLOGY UNIVERSITY IN TAIWAN. *Journal of Institutional Research South East Asia*, 18(2). (Scopus)
- Kumar, V., Verma, P., Mangla, S. K., Mishra, A., Chowdhary, D., **Hsu, S. C.**, & Lai, K. K. (2020). Barriers to Total Quality Management for sustainability in Indian organizations. *International Journal of Quality & Reliability Management*. (Scopus)
- Verma, P., Sharma, R. R. K., Kumar, V., **Hsu, S. C.**, & Lai, K. K. (2020). Identifying organizational variables to the implementation of horizontal strategy in conglomerates. *Benchmarking: An International Journal*. (Scopus)
- Hsu SC.**, Liu MH., Quah TS., Huang Y. (2019) Investigation and Numerical Simulation Analyses of the Landslides in Terrace Formation. In: Sevi A., Neves J., Zhao H. (eds) *Enhancements in Applied Geomechanics, Mining, and Excavation Simulation and Analysis. GeoChina 2018. Sustainable Civil Infrastructures*. Springer, Cham. https://doi.org/10.1007/978-3-319-95645-9_11 (EI)
- Wang CP., Huang Y., **Hsu SC.**, Hong JJ. (2019) Identifying the Defects Presented on the Exterior Layers of a Structure by Employing 3D Point Clouds and Thermography. In: Frikha W., Kawamura S., Liao WC. (eds) *New Developments in Soil Characterization and Soil Stability. GeoChina 2018. Sustainable Civil Infrastructures*. Springer, Cham. https://doi.org/10.1007/978-3-319-95756-2_10 (EI)
- S.-C. Hsu**, YC Yeh, TS Quah, PZ Hu (2017) "Identification of Critical Rainfall and Sliding Zones in a Colluvium Formation at Central Taiwan," *DEStech Transactions on Materials Science and Engineering*. (EI)
- S.-C. Hsu**, YS Huang, TS Quah, HY Hu (2017) "Analyses of Displacement Field along a Mountain Road Using Aerial Photos," *DEStech Transactions on Materials Science and Engineering*. (EI)
- Chen-yuan Chiu, Tai Seong Quah, **Sung-Chi Hsu***, John J. Bowders (2017) "Site Investigation and Analyses of Landslide Range Using Particle Image Velocimetry," *Journal of Testing and Evaluation*, Issue 1, Vol. 45, pp. 196-207. <https://doi.org/10.1520/JTE20160163> (SCI)
- Tai Seong Quah, **Sung-Chi Hsu***, Ya Suan Huang, Y. J. Ye, Chih-Hung Chiang, and Tao-Min Cheng (2016) "Using PIV to Analyze Landslide Movement on a Large Landslide," *Geo-China 2016, Geotechnical Special Publication 261, ASCE*, 65-72. (EI)

Sung-Chi Hsu, Yu-Ping Huang, and Tao-Ming Cheng (2014) " Earth Pressure Distribution for Deep Excavations in Gravel Formations," Geo-Hubei 2014, Geotechnical Special Publication 252, ASCE, 64-72. (EI)

Sung-Chi Hsu, Chich-Hong Jaing, and Ni- Chi Chen (2013) " Modeling of Debris Flow Using Distinct Element Method," IACAE 2013, Geotechnical Special Publication 232, ASCE, 713-720. (EI)

Sung-Chi Hsu, Ji-Yuan Lin, and Ming-Der Yang (2013) " Slope Instability of High Terrace Deposits under Extreme Weather Conditions," Geo-Congress 2013, Geotechnical Special Publication 231, ASCE, 462-471. (EI)

Sung-Chi Hsu, Julio Maldonado, Erik Loehr, John Bowders, Eric Lindsey, and William Omatsone (2013) "Model Testing of Precipitation-Induced Landslides," Geo-Congress 2013, Geotechnical Special Publication 231, ASCE, 426-433. (EI)

Sung-Chi Hsu, Huan-Yang Chiang and Ji-Yuan Lin (2012) "Effect of Gradation and Cement on the Properties of Soil-Cement Mixtures," Advanced Materials Research Vols. 535-537 (2012) pp 1719-1722. (EI)

徐松圻 (2012) “卵礫石層中隧道與管道開挖工法及技術之分析模擬研究(III)：三維數值模擬分析”，工程科技通訊 (Engineering Science & Technology Bulletin, NSC)，第128期。

Sung-Chi Hsu, Wei-Ming Huang and Ming-Der Yang (2011) "Progressing Rate of Ba-Guah-Shan Gravel Tunnel Construction," Geotechnical Special Publication 215, ASCE, 166-174. (EI)

Sung-Chi Hsu, Pei-Hsun Tsai, Chih-Sheng Wang and Ji-Yuan Lin (2011) "Experience of Pipe Jacking Tunneling in Gravel Formation," Geotechnical Special Publication 215, ASCE, 158-165. (EI)

Sung Chi Hsu, Bo Jing Lai, Wei Hsu, and Jiunnren Lai (2011) “Modeling of Gravel Properties and Anchors Using Discrete Element Method,” Advanced Materials Research, 189-193, pp. 1726-1731. (DOI: 10.4028/www.scientific.net/AMR.189-193.1726) (EI)

徐松圻、王志聖 (2010) “台中地區卵礫石層中推進與潛盾工法之進度研究”，工程科技通訊 (Engineering Science & Technology Bulletin, NSC)，第106期，第188-193頁。

Pei-Hsun Tsai, **Sung-Chi Hsu** and Jiunnren Lai (2009) "Effects of Core on Dynamic Responses of Earth Dam," Geotechnical Special Publication, ASCE, No. 197, pp. 8-13. (EI)

Sung-Chi Hsu and Chin-Ming Chang (2007) “Pullout performance of vertical anchors in gravel formation” Engineering Geology, 90, 1-2, pp. 17-29. (EI, SCI) (NSC89-2211-E-324-009)

Bin-Lin Chu, **Sung-Chi Hsu**, Yi-Long Chang, and Yeong-Shyang Lin (2007) “Mechanical behavior of a twin-tunnel in multi-layered formations” Tunnelling and Underground Space Technology, 22, 3, pp. 351-362. (EI, SCI)

Hsu, Sung-Chi and P. P. Nelson (2006), "Material Spatial Variability and Slope Stability for Weak Rock Masses," Journal of Geotechnical and Geoenvironmental Engineering, 132, 2, pp. 183-193. (EI, SCI)

Sung-Chi Hsu, Ming-Der Yang, Ming-Che Chen, and Ji-Yuan Lin (2006) “Artificial Neural Network of Liquefaction Evaluation for Soils with High Fines Content” 2006 International Joint Conference on Neural Networks, IEEE, Vancouver, BC, Canada, pp. 4950-4956. (EI)

Lai, S.-Y., **Sung-Chi Hsu**, and M.J. Hsieh (2006) Closure to “Discriminant Model for Evaluating Soil Liquefaction Potential Using Cone Penetration Test Data” Journal of Geotechnical and Geoenvironmental Engineering, 133, 5, pp. 670-672. (EI, SCI)

Lai, S.-Y., **Sung-Chi Hsu**, and M.J. Hsieh (2004) “Discriminant Model for Evaluating Soil Liquefaction Potential Using CPT Data,” Journal of Geotechnical and Geoenvironmental Engineering, 130, 12, pp.1271-1282. (EI, SCI)

Sung-Chi Hsu, S.S. Chiang, and J.R. Lai (2004) “Failure Mechanisms of Tunnels in Weak Rock with Interbedded Structures,” International Journal of Rock Mechanics and Mining Science, 41, p.489. (EI, SCI)

Daniel B. Chu, Jonathan P. Stewart, Shannon Lee, J.S. Tsai, P.S. Lin, B.L. Chu, Raymond B. Seed, **S.-C. Hsu**, M.S. Yu, and Mark C.H. Wang (2004) “Documentation of soil conditions at liquefaction and non-liquefaction sites from 1999 Chi-Chi (Taiwan) earthquake,” Soil Dynamics and Earthquake Engineering, 24, pp.647–657. (EI, SCI)

Chu, Bin-Lin, **Sung-Chi Hsu**, and Yi-Ming Chang (2004) “Ground Behavior and Liquefaction Analyses in Central Taiwan-Wufeng,” Engineering Geology, 71, vol. 1-2, pp 119-139. (EI, SCI)

Yang, M.-D., Y.F. Yang, and **Sung-Chi Hsu** (2004) “Application of Remotely Sensed Data to the Assessment of Terrain Factors Affecting the Tsao-Ling Landslide,” Canadian Journal of Remote Sensing, Vol. 30, No. 4, pp.593-603. (EI, SCI)

Jonathan P. Stewart, Daniel B. Chu, Shannon Lee, J.S. Tsai, P.S. Lin, B.L. Chu, Robb E.S. Moss, Raymond B. Seed, **S.-C. Hsu**, M.S. Yu, and Mark C.H. Wang (2003), “Liquefaction and non-liquefaction from 1999 Chi-Chi, Taiwan, earthquake” *Technical Council on Lifeline Earthquake Engineering Monograph*, n 25, pp. 1021-1030. (CODEN: TLEMF9) (EI)

Hsu, Sung-Chi and P. P. Nelson (2002), “Characterization of Eagle Ford Shale,” Engineering Geology, 67, pp.169-183.

Sung-Chi Hsu, Chu, Bin-Lin, and Yi-Ming Chang (2002) “Liquefaction Damages and Related Remediations at Wufeng after the Chi-Chi Earthquake,” Journal of the Chinese Institute of Engineers, Vol.25, No. 5, pp. 521-532.

褚炳麟、**徐松圻**、張益銘、陳冠閔、張錦銘，民國八十九年，921地震霧峰、太平地區液化及下陷調查分析，地工技術，第77期，第19-28頁。

徐松圻、張錦銘（2002）“卵礫石層中地錨錨碇行為之研究”，工程科技通訊 (Engineering Science & Technology Bulletin, NSC)，第61期，第117-120頁。

2. 研討會論文 Conference Papers

- Hsu, S. C., Tanone, R., Ye, Y. T., & Sharma, A. K. Study of Rainfall via Radar Image during Typhoon Morakot in Taiwan. Proceedings of the 9th World Congress on Civil, Structural, and Environmental Engineering (CSEE 2024) Paper No. ICGRE 148.
- Hsu, S. C., Sharma, A. K., Tanone, R., & Ye, Y. T. Predicting Rainfall Using Random Forest and CatBoost Models. Proceedings of the 9th World Congress on Civil, Structural, and Environmental Engineering (CSEE 2024) Paper No. ICGRE 146.
- Hsu, Sung-Chi, and Alok Kumar Sharma. "Forecast Rainfall Density by Utilizing Machine Learning Models." 8th World Congress on Civil, Structural, and Environmental Engineering, CSEE 2023, Paper No. ICGRE 153.
- Hsu, S. C., Liao, Q. Z., & Yeh, Y. C. (2022) Critical Rainfall and Slope Hazards in Central Taiwan Mountain. *World Congress on Civil, Structural, and Environmental Engineering*, 2022, ICGRE 239. (Scopus)
- 胡芯瑀、胡沛竹、徐松圻，(2022)「應用質點影像速度技術探討顆粒性土壤在開挖時之變位行為」，2022 第十九屆大地工程學術研討會，台灣科技大學，淡江。
- 徐松圻、廖啟志、賴怡君、蔡岳倫 (2022) "力行49K坡地危害及雨量臨界值之探討" 2022岩盤工程暨工程地質研討會，桃園，中央大學。
- Sung-Chi Hsu, Yan-Jun Lai, and Sixuan Lai, "Rainfall Forecasting Using Recurrent Neural Network and LSTM in Central Taiwan." Seventh International Conference on Engineering and Emerging Technologies (ICEET 2021), 27-28 October, in Istanbul, Turkey, 2021. (Scopus)
- 徐松圻、廖啟志、施詠馨，「投89線道32.5K歷年崩坍災害及雨量警戒值之研究」，第十八屆大地工程學術研究討論會，九月1-3日，屏東科技大學，屏東，2020。
- Hsu, S. C., T. P. Hsieh, and P. H. Tsai. "Influence of material spatial variability on slope stability in soft rock." 7th International Conference on Euro Asia Civil Engineering Forum, EACEF 2019; Stuttgart; Germany; 30 September 2019 to 2 October 2019.
- Sung-Chi Hsu, Pei-Ju Hu, and Pei-Hsun Tsai, "Study on Collapse Sequence and Critical Rainfall at Nantou 89th County Road in Taiwan," The 4th World Congress on Civil, Structural, and Environmental Engineering, DOI: 10.11159/icgre19.135, 2019. (Scopus)
- Sung-Chi Hsu, Hsin-Yu Hu, and Pei-Hsun Tsai, "Integrating BIM Models with 3D Scenery from UAV-Assisted Survey on Embankment," The 4th World Congress on Civil, Structural, and Environmental Engineering, DOI: 10.11159/icgre19.134, 2019. (Scopus)
- 胡沛竹、徐松圻、葉怡君，"投89線道12.3K的崩坍區域與歷程分析及臨界雨量探討" 2018岩盤工程研討會，臺南，成功大學，第201-206頁，2018。
- Mei-Ling Liu Tao-Ming Cheng, Hsing-yu Hou, Sung-Chi Hsu, Dinesh Chandra Agrawal, and Rung-Ching Chen. (2017) Improving Students Learning Performance from Learning Engagement and Institutional Resources Planning. ICOED'2017.
- 葉怡君、徐松圻、潘在祥、胡沛竹、廖啟志，「應用航照圖來探討投89線道15.85K的破壞區域及機制」，第十七屆大地工程學術研究討論會科技部成果發表暨第四屆蘇花改論壇，宜蘭，第75頁，2017。
- 黃雅萱、徐松圻、潘在祥、胡芯瑀、林元智，「應用質點影像測速技術對投89線道12.3K崩塌區進行位移場分析」，第十七屆大地工程學術研究討論會科技部成果發表暨第四屆蘇花改論壇，宜蘭，第76頁，2017。
- 黃雅萱、徐松圻、潘在祥、胡芯瑀，"應用數值航空影像於投89線道崩塌區之位移場分析" 2016岩盤工程研討會，高雄，義守大學，第300-309頁。

葉怡君、徐松圻、潘在祥、胡沛竹，"投 89 線道 15.85K 的破壞歷程及臨界雨量探討" 2016 岩盤工程研討會，高雄，義守大學，第 475-484 頁。

邱振原、黃怡碩、徐松圻，"應用多重相位層級法於衛星影像分割建立崩塌地物件"第 34 屆測量及空間資訊研討會，宜蘭，2015。

潘在祥、徐松圻、黃雅萱、邱振原，"應用 PIV 探討力行 15.85K 崩塌地之滑動"，第十六屆大地工程學術研究討論會，第 K-9 頁，高雄，2015。

潘在祥、徐松圻、沈朝偉、葉怡君、黃雅萱、邵鈺傑，"南投縣仁愛鄉崩滑區的初步探討與模擬分析"，第十六屆大地工程學術研究討論會，第 K-10 頁，高雄，2015。

Sung-Chi Hsu, Ming-Hung Liu, Ji-Yuan Lin, Ming-Der Yang, "Investigation and Studies of the Slopes along Chen-Yu-Lan River Watershed after Typhoon Morakot," INTERPRAEVENT 2014 in the Pacific Rim, Nara, Japan, pp. 170-171, 2014.

潘在祥、徐松圻、邱振原，"應用質點影像測速技術於崩塌地之滑動方向分析" 2014 岩盤工程研討會，霧峰台中，朝陽科技大學，第349-358頁。

徐松圻、簡育民、許振揚、蕭西坤、宋昌國、魏煜哲、張世松，"運用地電阻及現地監測研判滑動範圍-以投89線道路為例" 2014岩盤工程研討會，霧峰台中，朝陽科技大學，第623-632頁。

徐松圻、沈朝偉、潘在祥、唐翊恩，"大規模崩塌地之試驗與研究-以投89線道49K為例" 2014岩盤工程研討會，霧峰台中，朝陽科技大學，第613-622頁。

徐松圻、黃仁德、柳名鴻、侯雪寒，"沙里仙坡地崩滑區之探勘與初步探討分析"，第十五屆大地工程學術研究討論會，雲林，2013。

徐松圻、柳名鴻、黃仁德、楊明德、沈朝偉，"台21線新山路段崩塌潛勢分析"，第十五屆大地工程學術研究討論會，雲林，2013。

Sung-Chi Hsu, Ming-Hung Liu, Ji-Yuan Lin, and Ming-Der Yang (2013) "ANALYSES OF LANDSLIDE IN COLLUVIUM UNDER EXTREME WEATHER CONDITION," 18th SOUTHEAST ASIAN GEOTECHNICAL CONFERENCE and INAUGURAL AGSSEA CONFERENCE, GEOTECHNICAL INFRASTRUCTURE, Singapore, 525-530.

Hsu Sung-Chi, S.-N. Lu & S.-S. Chiang, Effective tunnel support in weak rock with interlayered formations, Eurock 2012, Sweden.

徐松圻、陳學禹 (2012) "分離元素法探討卵礫石層中管道開挖形狀及支撐之穩定" 2012岩盤工程研討會，苗栗，聯合大學，第459-468頁。

Sung-Chi Hsu, Ming-Der Yang, Ming-Che Chen, and Ji-Yuan Lin (2011) "Neural Network Modelling of Liquefaction Resistance from Shear Wave Velocity," 3rd World Congress in Applied Computing, Computer Science, and Computer Engineering (ACC2011) #066.

徐松圻、林晉德、侯雪寒、陳學禹、陳妮祺，"應用個別元素法模擬卵礫石層中管道開挖之行為"，第十四屆大地工程學術研究討論會，桃園，2011，G16-1-10。

陳妮祺、徐松圻、陳學禹、林基源，"數值模擬水槽試驗於土石流攔阻堆積之研究"，第十四屆大地工程學術研究討論會，桃園，2011，C36-1-11。

賴泊靖、徐松圻 (2010) "以分離元素法模擬卵礫石層中地錨拉拔行為" 2010 岩盤工程研討會，高雄，高雄應用科技大學，第 463-474 頁。

- Jiunnren Lai, Sung-Chi Hsu, Shengmin Wu (2009) "Evaluating the height of earth retaining structures by sonic echo method", paper presented in the 13th Asia-Pacific Conference on Non-Destructive Testing, November 8-13, 2009, Yokohama, Japan. Paper No. AT3-2.
- Hsu, Sung-Chi, Bin-Lin Chu & Chen-Chuan Lin (2008) "Ground movements caused by lateral spread during an earthquake," 10th International Symposium Landslides and Engineered Slopes, Chen et al. (eds), Xian, China, Taylor & Francis Groups, London, pp.1409-1414.
- J.R. Lai, S.-C. Hsu & P.H. Tsai (2008) "Development of a pneumatic mechanical impact source for cross-hole seismic tests," Geotechnical and Geophysical Site Characterization – Huang and Mayne (eds), Taylor & Francis Groups, London. pp. 873-878.
- Huang, Yishuo and Sung-Chi Hsu (2007) "Identify the locations of concrete cracks with employing the improved active contour model to extract regional boundaries from GPR," The 2nd International Conference on Advanced Non-destructive Evaluation," Busan, Korea, Paper No. 2007-313.
- Daniel B. Chu, Jonathan P. Stewart, Shannon Lee, J. S. Tsai, P.S. Lin, B.L. Chu, Robb E.S. Moss, Raymond B. Seed, S. C. Hsu, M. S. Yu, and Mark C.H. Wang (2003) "VALIDATION OF LIQUEFACTION-RELATED GROUND FAILURE MODELS USING CASE HISTORIES FROM CHI-CHI, TAIWAN EARTHQUAKE," *U.S.-Taiwan Workshop on Soil Liquefaction*, Hsinchu, Taiwan, November 2-5, 2003
- Hsu, Sung-Chi and P. P. Nelson (2001), "Mechanical Properties and Failure Mechanisms for Clay Shale Masses," Proceedings of the 38th U.S. Rock Mechanics Symposium, Washington D.C., USA, pp.1145-1152.
- Chu, Bin-Lin, Sung-Chi Hsu, Seng-Yaw Lay, and Yi-Ming Chang (2000), Failures Associated with Liquefaction at Wufeng During Chi-Chi Earthquake, Proceedings of International Commemoration of Chi-Chi Earthquake, National Center for Research on Earthquake Engineering, Taipei, Taiwan, ROC, Vol. III-Geotechnical Aspect, pp.46-57.
- Hsu, Sung-Chi and P. P. Nelson (1999), "Use of a Stochastic Approach on Site Investigation and Material Characterization," Proceedings of the 37th U.S. Rock Mechanics Symposium, Vail, Colorado, USA, pp.809-816.
- Hsu, Sung-Chi and Jiunnren Lai, (1998), "Material Spatial Variation of a Weak Sedimentary Rock," ISRM Regional Symposium on Sedimentary Rock Engineering, pp. 96-101, Taipei, Taiwan, Nov. 20-22.
- Lai, Jiunnren and Sung-Chi Hsu (1998) "The Mechanic Properties of a Stiff Fissured Clay Shale," ISRM Regional Symposium on Sedimentary Rock Engineering, pp. 84-89, Taipei, Taiwan, Nov. 20-22.
- Hsu, Sung-Chi and Nelson, P.P. (1998) "Evaluation of Material Spatial Variability on Site Investigation and Slope Stability", 2nd International Conf. on Environmental Management (ICM2), 10-13 Feb., Wollongong, Australia.
- Hsu, Sung-Chi and Nelson, P.P. (1997) "Modeling of Weak Rock Variability and its Impacts on Slope Stability", 2nd Panamerican Symp. on Landslides, 10-14 Nov, Rio de Janeiro, Brazil.
- Hsu, Sung-Chi (1997) "Stability and Failure Mechanisms of Slopes in Weak Rock Masses", 7th Taiwan Geotechnical Conference, Aug. 28-30, Taipei, Taiwan, pp.1203-1210.
- Hsu, S. C. and P. P. Nelson (1995), "Analyses of Slopes in Jointed Weak Rock Masses Using Distinct Element Method", Second International Conference on Mechanics of Jointed and Faulted Rock, Vienna, Austria, April 10-14, pp.575-580.

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3. 研究計畫

深度學習在防災上的應用(II)－深度學習在防災上的應用(II)	國科會	2023/08/01~ 2024/12/31	執行中	主持人
大規模崩塌地之破壞機制、災害預警及風險評估之先進研究－大規模崩塌地三維地形地質與破壞演進及規模之探討評估(子計畫一)(III)(110-2625-M-324-001-)	國科會	2021/08/01~ 2023/01/31	已結案	主持人
大規模崩塌地之破壞機制、災害預警及風險評估之先進研究－大規模崩塌地三維地形地質與破壞演進及規模之探討評估(子計畫一)(II)(109-2625-M-324-001-)	科技部	2020/08/01~ 2021/11/30	已結案	主持人
大規模崩塌地之破壞機制、災害預警及風險評估之先進研究－子計畫:大規模崩塌地三維地形地質與破壞演進及規模之探討評估(I)(108-2625-M-324-001-)	科技部	2019/08/01~ 2020/11/30	已結案	主持人
板岩地區大規模淺/深層崩塌災害調查分析及警戒基準值研究--子計畫:結合無人飛行載具及光達技術進行板岩崩塌區案例分析、監測及破壞機制探討(III) 107-2625-M-324 -001 -	科技部	2018/08/01~ 2019/10/31	已結案	主持人
板岩地區大規模淺/深層崩塌災害調查分析及	科技部	2017/08/01~	已結案	主持人

警戒基準值研究—子計畫: 結合無人飛行載具及光達技術進行板岩崩塌 區案例分析、監測及破壞機制探討(II) (MOST 106-2625-M-324-002)		2018/07/31		
板岩地區大規模淺/深層崩塌災害調查分析及 警戒基準值研究—子計畫: 結合無人飛行載具及光達技術進行板岩崩塌 區案例分析、監測及破壞機制探討(I) (MOST 105-2625-M-324-001)	科技部	2016/08/01~ 2017/07/31	已結案	主持人
大規模崩塌地之調查、分析與潛勢評估—以力 行產業道路沿線大型崩塌為例—子計畫:大規 模崩塌地之調查分析與影響機制及範圍評估 (MOST 103-2625-M-324 -001 -MY2)	行政院國家 科學委員會	2014/08/01~ 2016/07/31	已結案	主持人
大規模崩塌地之調查、分析與潛勢評估—以力 行產業道路沿線大型崩塌為例—子計畫:大規 模崩塌地之調查分析與影響機制及範圍評估 (I)(102-2625-M-324-001-)	行政院國家 科學委員會	2013/08/01~ 2014/07/31	已結案	主持人
極端氣候下複合性災害防治之研究—極端氣 候下之中台灣土砂災害影響評估與減災策略 (3/3)(101-2218-E-005-001-)	行政院國家 科學委員會	2012/08/01~ 2013/10/31	已結案	共同主 持人
極端氣候下複合性災害防治之研究—極端氣 候下之中台灣土砂災害影響評估與減災策略 (2/3)(100-2218-E-005-001-)	行政院國家 科學委員會	2011/08/01~ 2012/07/31	已結案	共同主 持人
考慮時間空間尺度之坡地災害及受災潛勢研 究—子計畫:考慮時間尺度下水文條件與坡地 災害關係之探討(99-2625-M-324-001-MY3)	行政院國家 科學委員會	2010/08/01~ 2013/07/31	已結案	主持人
極端氣候下複合性災害防治之研究—極端氣 候下之中台灣土砂災害影響評估與減災策略 (1/3)(99-2218-E-005-003-)	行政院國家 科學委員會	2010/08/01~ 2011/07/31	已結案	共同主 持人
卵礫石層中隧道與管道開挖工法及技術之分 析模擬研究(III):三維數值模擬分析 (98-2221-E-324-029-)	行政院國家 科學委員會	2009/08/01~ 2010/07/31	已結案	主持人
卵礫石層中隧道與管道開挖工法及技術之分 析模擬研究(II):數值模擬分析	行政院國家 科學委員會	2008	已結案	主持人
卵礫石層中隧道與管道開挖工法及技術之分 析模擬研究	行政院國家 科學委員會	2007	已結案	主持人
卵礫石層中擋土柱施工安全探討及模擬分析	行政院國家 科學委員會	2007	已結案	主持人

卵礫石層中地錨錨碇行為之研究(IV)：數值模擬分析	行政院國家科學委員會	2005	已結案	主持人
卵礫石層中地錨錨碇行為之研究(III)：傾斜地錨現地試驗	行政院國家科學委員會	2004	已結案	主持人
卵礫石層中地錨錨碇行為之研究(II)	行政院國家科學委員會	2003	已結案	主持人
中部山區道路邊坡翻覆破壞機制之研究(II)	行政院國家科學委員會	2002	已結案	主持人
中部山區道路邊坡翻覆破壞機制之研究-以台14線公路為例	行政院國家科學委員會	2001	已結案	主持人
霧峰地區土層之剪力波波速量測與初步液化潛能評估	行政院國家科學委員會	2000	已結案	主持人
公共工程科技地下開挖技術整合型研究(III)--子計畫四:卵礫石層中地錨錨碇行為之研究	行政院國家科學委員會	2000	已結案	主持人
公共工程科技研究:地下開挖技術整合型研究(IV)-子計畫四:卵礫石層中開挖後土壓力分佈之現地量測及模擬分析	行政院國家科學委員會	1999	已結案	主持人
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4. 研究報告 Project Reports

陳正興、黃富國、許尚逸、邱俊翔、鄭魁香、徐松圻、王淑娟、葉錦勳、簡文郁、柯永彥、張毓文、楊鶴雄，(2009)，港灣地區地震潛勢及港灣構造物耐震評估之研究(3/4)-基隆港，期末報告，MOTC-IOT-98-H1DB006，交通部運輸研究所港灣技術研究中心。

陳正興、黃富國、許尚逸、邱俊翔、鄭魁香、徐松圻、王淑娟、葉錦勳、簡文郁、柯永彥、張毓文、楊鶴雄，(2008)，港灣地區地震潛勢及港灣構造物耐震評估之研究(2/4)-花蓮港，期末報告，交通部運輸研究所港灣技術研究中心。

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褚炳麟、張子修、徐松圻、謝明志、賴聖耀、蔡佩勳、李增欽、鄭一俊，(1999)，”台中及苗栗地區資料複檢與初步液化分析(I)”，國家地震中心專題研究計畫成果報告，國家地震工程研究中心。

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"Laboratory Testing and Literature Review on Eagle Ford Shale" with Roy E. Olson and J. R. Lai, submitted to The PB/MK Team for the SSC project, June 1992.

"Field Testing Results at the Exploratory Shaft and Equipment Design for Triaxial Extension Test" with Roy E. Olson and J. R. Lai, submitted to The PB/MK Team for the SSC project, December 1991.