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ACADEMIC APPOINTMENT

Professor and Associate Chair

Department of Civil Engineering, National Taiwan University (NTU), 2019~Present

EDUCATION

Philosophy of Doctor in Civil, Architectural and Environmental Engineering, August 2009

University of Texas at Austin

Dissertation: Stress Distribution within Geosynthetic-Reinforced Soil Structures

Advisor: Prof. Jorge G. Zornberg

Master of Science in Civil and Environmental Engineering, December 2004

University of Michigan at Ann Arbor

Advisor: Prof. Roman D. Hryciw

Bachelor of Science in Bio-Environmental Systems Engineering, June 2000

National Taiwan University

Advisor: Prof. Fu-Chun Wu

RESEARCH INTERESTS

Slope Stability and Earth Retaining Structures

Rainfall and earthquake induced landslide and debris flow, Earth retaining structures

Application of Geosynthetics

Reinforced soil mechanics, Soil and reinforcement interaction, Geosynthetic-reinforced soil structures

Geotechnical Engineering Modeling

Computational soil mechanics, Hydro-mechanical coupled analysis, Finite element modeling, Limit equilibrium analysis

Geo-Environmental and Geo-Disaster Engineering

Unsaturated soil, Soil seepage and erosion, Disaster mitigation and protection

PROFESSIONAL REGISTRATION

Engineer in Training, Texas Registration # 39138

PROFESSIONAL EXPERIENCE

Associate Professor, Geotechnical Program in Dept. of Civil Engineering, National Taiwan University, 2017~2019

Adjunct National Taiwan University (NTU), Taipei, Taiwan, 2017~Present Associate Research Fellow, Center for Weather Climate and Disaster Research, National Taiwan University, 2018

Adjunct Associate Professor, Dept. of Civil and Construction Engineering, National Taiwan University of Science and Technology, 2017~2019

Visiting Scholar, Dept. of Civil Engineering, Royal Military College, Ontario, Canada, Research Supervisor: Prof. Richard J. Bathurst, Focus: Design of Geosynthetic-Reinforced Soil Structures subjected to Lateral Loadings, 2015

Associate Professor, Geotechnical Program in Dept. of Civil and Construction Engineering, National Taiwan University of Science and Technology, 2013~2017

Assistant Professor, Geotechnical Program in Dept. of Civil and Construction Engineering, National Taiwan University of Science and Technology, 2009~2013

Exchange Student, Dept. of Mining Engineering, Universidade Federal de Ouro Preto, Minas Gerais, Brazil, Research Supervisor: Prof. Christianne de Lyra Nogueira, Focus: Development and Implementation of A Self-Developed Finite Element Program, ANLOG, 2008

Graduate Research and Teaching Assistant, Dept. of Civil, Architectural, and Environmental Engineering and Center for Transportation Research, University of Texas at Austin, Research Advisors: Prof. Jorge G. Zornberg and Stephen G. Wright , 2005~2008

Graduate Research Assistant, Dept. of Civil and Environmental Engineering, University of Michigan at Ann Arbor, Research Advisor: Prof. Roman D. Hryciw, 2004

Research Assistant, Dept. of Bio-Environmental Systems Engineering and Hydrotech Research Institute, National Taiwan University, Taiwan, Research Advisor: Prof. F-C Wu, 2002~2003

ADMINISTRATIVE EXPERIENCE

Associate Chair, Dept. of Civil Engineering, National Taiwan University, 2019~2022

Director of Geotechnical Laboratory, Dept. of Civil Engineering, National Taiwan University, 2019~2020

Department Special Assistant, Dept. of Civil and Construction Engineering, National Taiwan University of Science and Technology, 2014~2015

Chair of International Affair Committee, Dept. of Civil and Construction Engineering, National Taiwan University Science and Technology, 2013~2016

Director of Geotechnical Laboratory, Dept. of Civil and Construction Engineering, National Taiwan University Science and Technology, 2010~2016

HONORS AND AWARDS

International Awards

The Young IGS Member Achievement Award, International Geosynthetics Society, 2014, 青年成就獎, 國際地工合成材學會, 2014

Best Paper Award, 7th Asia Young Geotechnical Engineers Conference, ISSMGE, 最佳論文獎, 第七屆亞洲青年大地工程師研討會, 2012

Research Awards

Outstanding Young Scholar Research Project (3-year grant), Ministry of Science and Technology, Taiwan, 優秀年輕學者計畫(三年期), 科技部, 2018

Young Scholar Research Award, National Taiwan University of Science and Technology, 年輕學者研究獎, 國立臺灣科技大學, 2016

Outstanding Young Scholar Research Project (3-year grant), National Science Council, Taiwan, 優秀年輕學者計畫(三年期), 國科會, 2013

Paper Awards

Best Paper Award, 29th Armed Force Conference on Military Engineering, 優良論文獎, 第二十九屆國軍軍事工程研討會, 2017

Best Paper Award, Journal of Disaster Management, Taiwan Disaster Management Society, 最佳論文獎, 災害防救科技與管理學刊, 2015

Best Paper Award, 5th China Geosynthetic Conference on Soil Reinforcement, 優良論文獎, 第5屆中國土工合成材料加筋土學術研討會, 2015

Excellent Paper Award, Journal of GeoEngineering, Taiwan Geotechnical Society, 大地工程優良論文獎, 中華民國大地工程學會期刊, 2014

Best Paper Award, Journal of Construction Management, Taiwan Construction Management Society, 營建管理論文獎, 中華民國營建管理季刊, 2012

Best Paper Award, Journal of GeoEngineering, Taiwan Geotechnical Society, 大地工程傑出論文獎, 中華民國大地工程學會期刊, 2012

Best Paper Award, 14th Taiwan Geotechnical Engineering Conference, 優良論文獎, 第十四屆中華民國大地工程研討會, 2011

Top 10 Best Papers Award, Graduate Student Paper Competition, College of Engineering, The University of Texas at Austin, 2006

Outstanding Undergraduate Research Award, Department of Bio-Environmental Systems Engineering, National Taiwan University, Taiwan, 2000

Teaching Awards

Senior and Excellent Teacher Award, Ministry of Education, Taiwan, 資深優良教師獎勵(十年), 教育部, 2019

Excellent Teaching Award, National Taiwan University, 教學優良教師獎, 國立臺灣大學, 2019

Supervisor of the Winner of the Geotechnical Engineering Master Thesis Award, Taiwan Geotechnical Society, 107 年度大地工程碩士論文獎指導老師, 中華民國大地工程學會, 2018

Supervisor of the Winner of the Geotechnical Engineering Master Thesis Honorable Mention, Taiwan Geotechnical Society, 106 年度大地工程碩士論文佳作指導老師, 中華民國大地工程學會, 2017

Excellent Teaching Award, National Taiwan University of Science and Technology, 教學優良教師獎, 國立臺灣科技大學, 2016

Supervisor of the Winner of the Undergraduate Research and Innovation Award, Ministry of Science and Technology, 103 年度科技部大專生研究創新獎指導老師, 科技部, 2015

Outstanding Teaching Award, National Taiwan University of Science and Technology, 教學傑出教師獎, 國立臺灣科技大學, 2013

Innovative Teaching Method and Material Award, National Taiwan University of Science and Technology, 創新教學模式與教材研發獎, 國立臺灣科技大學, 2012

Excellent Teaching Award, National Taiwan University of Science and Technology, 教學優良教師獎, 國立臺灣科技大學, 2012

Supervisor of the Winner of the Undergraduate Research 1st place Award, National Taiwan University of Science and Technology, 最佳專題(第一名)指導老師, 國立臺灣科技大學, 2012

Best Supervisor Award, National Taiwan University of Science and Technology, 優良導師獎, 國立臺灣科技大學, 2011

Taiwan Delegate

Taiwan Delegate, 18th Southeast Asian Geotechnical Conference-Young People Session, SEAGC, 第 18 屆東南亞大地工程研討會青年會議臺灣代表, 2013

Taiwan Delegate, 7th Asia Young Geotechnical Engineers Conference, ISSMGE, 第 7 屆亞洲優秀青年大地工程師臺灣代表, 2012

Scholarships, Fellowships and Travel Grants

Graduate Student Professional Development Award, University of Texas at Austin, 2009

Travel Grant for Encouraging Students to Participate in National and International Academic Conference and Art Performance, Ministry of Education, Taiwan, 2009~2008

Walter L. and Reta Mae Moore Graduate Fellowship in Civil Engineering, Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, 2008~2007

North America Taiwanese Engineers Association Scholarship, 2007

2nd Place of Geo-Challenge Student Retaining Wall Competition, ASCE, Geo-Denver Conference, *design paper was awarded the top ranked team and travel grant, 2007

Cockrell School of Engineering Scholarship, College of Engineering, The University of Texas at Austin, 2006

Research

PUBLICATION LIST

Productivity Summary

Publications	Published	In Review/Preparation
Journal paper	44	2
International Conference	46 (21 are EI indexed)	0
Domestic Conference	19	0
Newsletter	9	0
Technical Reports	28	0

148 In Total

⊙ indicates students or research assistants under my supervision

☒ indicates I am the corresponding author

Journal Publications

1. Nguyen, M.D.[⊙], Yang, K-H, and Yalaw, W. M.[⊙] (2019) “Compaction Behavior of Nonwoven Geotextile-Reinforced Clay”, *Geosynthetics International*. [SCI]
2. Hung, W-Y, Yang, K-H[☒], Nguyen, T.S.[⊙], and Pham, T.N.P.[⊙] (2019) “Performance of Geosynthetic-Reinforced Soil Walls at Failure”, *Journal of GeoEngineering*. [EI]
3. Yang, K-H[☒], Wei, S-B, Adilehou, W. M.[⊙], and Ho, H-C, (2019) “Fiber-Reinforced Internally Unstable Soil against Suffusion Failure”, *Construction and Building Materials*, 222, 458-473. [MOST105-2221-E-011-038] [SCI]
4. Yang, K-H[☒], Nguyen, T.S.[⊙], Lee, Y-H[⊙], and Leshchinsky, B, (2019) “Performance and Design of Geosynthetic-Reinforced Soil Slopes against Rainfall: Considering Regional Hydrological Conditions”, *Geosynthetics International*. [MOST107-2628-E-002-003 -MY3] [SCI]
5. Yang, K-H[☒], Thuo, J.N.[⊙], Chen, J-W[⊙], and Liu, C-N, (2019) “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subject to Rainfall”, *Geosynthetics International*, 26(1), 42-65. [MOST107-2628-E-002-003 -MY3] [SCI]
6. Hung, C., Pang, X., Lin, G-W, Yang, K-H, and Uzuoka R. (2019) “The Role and Impact of Geofluids in Geohazards”, *Geofluids*, 2019, 7217489 [SCI]
7. Yang, K-H[☒], Thuo J.N.[⊙], Huynh, V.D.A.[⊙], Nguyen T.S.[⊙] and Portelinha, F.H.M, (2018) “Numerical Evaluation of Reinforced Slopes with Various Backfill-Reinforcement-Drainage Systems subject to Rainfall Infiltration”, *Computers and Geotechnics*, 96, 25-39. [NSC102-2221-E-011-057- MY3] [SCI]
8. Hsiung, B-C, Yang, K-H, Aila, W. [⊙] and Ge, L., (2018) “Evaluation of Wall Deflections of a Deep Excavation in Central Jakarta using Three-Dimensional Modeling”, *Tunnelling and Underground Space Technology*, 72, 84-96. [SCI]
9. Yang, K-H[☒], Nguyen T.S.[⊙] and Thuo J.N.[⊙], (2018) “Discussion of Influence Factors involving Rainfall-Induced Shallow Slope Failure: Numerical Study”, *International Journal of Geomechanics*, ASCE, 18(4), 07018003. [SCI]
10. Yang, K-H[☒], and Wang, J-Y[⊙], (2018) “Closure to Discussion of Experiment and Statistical

- Assessment on Piping Failure of Soils with Different Gradations”, *Marine Georesources and Geotechnology*, 36(3), 376-378. [NSC100-2221-E-011-115] [SCI]
11. Yang, K-H[✉], Adilehou, W. M.[©], Jian, S-T.[©] and Wei, S-B.[©], (2017) “Hydraulic Response of Fiber-Reinforced Sand subject to Seepage”, *Geosynthetics International*, 24(5), 491-507. [MOST105-2221-E-011-038] [SCI]
 12. Yang, K-H[✉], Uzuoka R., Thuo J.N.[©], Lin G-L[©], and Nakai T., (2017) “Coupled Hydro-Mechanical Analysis of Two Unstable Unsaturated Slopes subject to Rainfall Infiltration”, *Engineering Geology*, 216, 13-30. [SCI]
 13. Yang, K-H[✉], and Wang, J-Y[©], (2017) “Experiment and Statistical Assessment on Piping Failure of Soils with Different Gradations”, *Marine Georesources and Geotechnology*, 35(4), 512-527. [NSC100-2221-E-011-115] [SCI]
 14. 周瑞生、楊國鑫、林婕嫻[©], (2016) “應用資料探勘技術暨啟發式演化組合模型預測離散纖維加勁土壤之剪力強度參數”, *中國土木水利工程學刊*, 第 28 卷第 3 期, 205-218。 [EI]
 15. Hsiung, B-C, Yang, K-H, Aila, W. [©] and Hung, C., (2016) “Three-Dimensional Effect of a Deep Excavation on Wall Deflections in Loose to Medium Dense Sands”, *Computers and Geotechnics*, 80, 138-151. [SCI]
 16. Yang, K-H[✉], Wu, J.T.H., Chen, R-H, and Chen, Y-S[©], (2016) “Lateral Bearing Capacity and Failure Mode of Geosynthetic-Reinforced Soil Barriers subject to Lateral Loadings”, *Geotextiles and Geomembranes*, 44, 799-812. [MOST104-2918-I-011-006] [SCI]
 17. Yang, K-H[✉], Nguyen, M.D[©], Yalaw, W. M.[©], Liu, C-N, and Gupta, R., (2016) “Behavior of Geotextile-Reinforced Clay under Consolidated-Undrained Tests: Reinterpretation of Porewater Pressure Parameters”, *Journal of GeoEngineering*, 11(2), 45-57. [NSC102-2221-E-011-057- MY3] [EI]
 18. Tung, H., Chen H-Y, Hu, J-C, Chen, H., Yang, K-H, (2016) “Transient Deformation induced by Groundwater Change in Taipei Metropolitan Area revealed by High Resolution X-band SAR Interferometry”, *Tectonophysics*, 692(B), 265-277 [SCI]
 19. Chou, J.S, Yang, K-H, and Lin J-Y.[©] (2016) “Peak Shear Strength of Discrete Fiber-Reinforced Soils computed by Machine Learning and Metaensemble Methods”, *Journal of Computing in Civil Engineering*, ASCE, 30(6), 04016036. [SCI]
 20. Yang, K-H[✉], Yalaw, W. M.[©] and Nguyen, M.D[©], (2016) “Behavior of Geotextile-Reinforced Clay with a Coarse Material Sandwich Technique under Unconsolidated-Undrained Triaxial Compression”, *International Journal of Geomechanics*, ASCE, 16(3), 04015083. [MOST102-2221-E-011-057- MY3] [SCI]
 21. Thuo, J.N.[©], Yang, K-H[✉] and Huang, C-C, (2015) “Infiltration into Unsaturated Reinforced Slopes with Nonwoven Geotextile Drains sandwiched in Sand Layers”, *Geosynthetics International*, 22(6), 457-474. [MOST102-2221-E-011-057- MY3] [SCI]
 22. Chou, J-S, Yang, K-H, and Ren, T-C[©], (2015) “Ex-post Evaluation of Preparedness Education in Disaster Prevention, Mitigation and Response”, *International Journal of Disaster Risk Reduction*, 12, 188-201. [SCI]
 23. Chou, J-S, Yang, K-H, Pampang J. P.[©], and Pham, A.D., (2015) “Evolutionary Metaheuristic Intelligence to Simulate Tensile Loads in Reinforcement for Geosynthetic-Reinforced Soil Structures”, *Computers and Geotechnics*, 66, 1-15. [SCI]
 24. 邱建國、楊國鑫、陳道平、蔡長銘、邱子熙, (2015) “臺北市企業防災推動機制研究”, *災害防救科技與管理學刊*, 第 4 卷第 1 期, 49-75。*2015 Best Paper Award from this journal.
 25. Liu, C-N, Yang, K-H[✉], and Nguyen, M.D[©], (2014) “Behavior of Geogrid-Reinforced Sand and Effect of Reinforcement Anchorage under Large-Scale Plane Strain Compression”,

Geotextiles and Geomembranes, 42, 479-493. [SCI]

26. 林俊佑[Ⓢ]、楊國鑫[✉], (2014) “低滲透非塑性土壤內不織布排水效果與改善措施之試驗研究”, 中國土木水利工程學刊, 第 26 卷第 2 期。[MOST102-2221-E-011-057- MY3] [EI]
27. Mohamed, S.[Ⓢ], Yang, K-H[✉] and Hung, W-Y, (2014) “Finite Element Analyses of Two-Tier Geosynthetic-Reinforced Soil Walls: Comparison Involving Centrifuge Tests and Limit Equilibrium Results”, *Computers and Geotechnics*, 61, 67-84. [SCI]
28. Wu, J.T.H., Yang, K-H, Mohamed, S.[Ⓢ], Pham, T., and Chen R.-H., (2014) “Suppressing Dilation of Soil-A Reinforcing Mechanism of Soil-Geosynthetic Composites”, *Transportation, Infrastructure, Geotechnology*, 1(1), 68-82. [EI]
29. Mohamed, S.[Ⓢ], Yang, K-H[✉], and Hung, W-Y, (2013) “Limit Equilibrium Analyses of Geosynthetic-Reinforced Two-Tiered Soil Walls: Calibration from Centrifuge Tests”, *Geotextiles and Geomembranes*, 41, 1-16. [SCI]
30. Yang, K-H[✉], Utomo, P[Ⓢ], and Liu, T-L[Ⓢ], (2013) “Evaluation of Force-Equilibrium and Deformation-Based Design Approaches for Predicting Reinforcement Tension within Geosynthetics-Reinforced Soil Structures”, *Journal of GeoEngineering*, 8(2), 41-54. *2013 Excellent Paper Award from this journal. [NSC99-2218 -E-001-006] [EI]
31. Nguyen, M.D.[Ⓢ], Yang, K-H[✉], Lee, S-H, Wu, C-S, Tsai, M-H[Ⓢ] (2013) “Behavior of Nonwoven Geotextile Reinforced Soil and Mobilization of Reinforcement Strain under Triaxial Compression”, *Geosynthetics International*, 20(3), 207-225. [NSC101-2221-E-011 -112] [SCI]
32. Chou, J-S, Yang, K-H[✉], Cheng, M-Y, and Tu, W-T[Ⓢ] (2013) “Identification and Assessment of Heavy-Rainfall-Induced Disaster Potentials in Taipei City”, *Natural Hazards*, 66(2), 167-190. [SCI]
33. 楊國鑫[✉]、劉家男、周南山 (2012) “加勁擋土牆加勁材張力發展預測方法之評估”, 地工技術, 第134期, 15-24。[NSC99-2218 -E-001-006]
34. Liu, C-N, Yang, K-H, Ho, Y-H, and Chang, C-M (2012) “Lessons Learned from Three Failures on a High Steep Geogrid-Reinforced Slope”, *Geotextiles and Geomembranes*, 34, 131-143. [SCI]
35. Yang, K-H[✉], Zornberg, J.G., Liu, C-N and Lin, H-D. (2012) “Stress Distribution and Development within Geosynthetic-Reinforced Soil Slopes”, *Geosynthetics International*, 19(1), 1-17. [NSC99-2218-E-001-006] [SCI]
36. Lin, Y-C, Lee, C-H, Yang, K-H[✉], Lin, M-H, Chen, K-F, and Pan, C-P, (2011), “Pollutant Trends and Hazard Ranking in the Desalination Area of the Penghu Islands, Taiwan ”, *Desalination*, 281, 159-164 [SCI]
37. 楊國鑫、周瑞生、涂莞庭[Ⓢ]、雷泰雄、蔡茂岳 (2011) “臺北市颱風與坡地災害潛勢界定與風險分析”, 營建管理季刊, 第86期, 59-73。*2011 Best Paper Award from this journal.
38. Yang, K-H[✉], Zornberg, J.G., Hung, W-Y and Lawson, C.R. (2011), “Location of Failure Plane and Design Considerations for Narrow Geosynthetic-Reinforced Soil Wall Systems”, *Journal of GeoEngineering*, April 2011, 6(1), 13-25. [EI]. *2011 Best Paper Award from this journal.
39. Yang, K-H, Ching, J-Y and Zornberg, J.G. (2011), "Reliability-Based Design for External Stability of Narrow Mechanically Stabilized Wall: Calibration from Centrifuge Tests", *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 137(3), 239-253 [SCI]
40. Lin, M-H, Lee, C-H, Lin, Y-C and Yang, K-H (2011), "Potentially Toxic Trace Elements Accumulating in Marine Sediment and Bivalves in the Outfall Area of a Desalination Plant ", *Desalination and Water Treatment*, 25, 106-112. [SCI]

41. Yang, K-H and Liu, C-N (2007), "Finite Element Analysis of Earth Pressures for Narrow Retaining Walls", *Journal of GeoEngineering*, August 2007, 2(2), 43-52. [EI]
42. Wu, F-C and Yang, K-H (2004), "Entrainment Probabilities of Mixed-size Sediment Incorporating Near-bed Coherent Flow Structures", *Journal of Hydraulic Engineering*, ASCE, 130(12), 1187-1197. [SCI]
43. Wu, F-C and Yang, K-H (2004), "A Stochastic Partial Transport Model for Mixed-Size Sediment: Application to Assessment of Fractional Mobility", *Water Resources Research*, 40(4), W04501. [SCI]
44. 吳富春、楊國鑫 (2003), "水田土地利用型態對區域性微氣候之影響評估", *中國農業工程學報*, 第49卷第2期, 53-68。

Journal Publications in Progress

1. Yang, K-H[✉], Chiang, J[Ⓢ], Lai, Z. W.[Ⓢ], Lin, M.L. "Performance of Geosynthetic-Reinforced Soil Walls across a Normal Fault", *Geotextiles and Geomembranes*, first review on August 2019. [SCI]
2. Yang, K-H[✉], and Nguyen, T.S.[Ⓢ]. "Deformation Characteristics and Triggering Mechanism of Unstable Shallow Slopes subjected to Rainfall Infiltration", *Landslides*, in preparation. [SCI]

International Conference Publications

1. Nguyen, T.S.[Ⓢ], Yang, K-H, Hung, W-Y, and Pham, T.N.P.[Ⓢ], "Centrifuge Modeling of Geosynthetic-Reinforced Soil Walls at Failure", *Proceedings of the 4th International Conference on Geotechnics for Sustainable Infrastructures Development, Geotec Hanoi 2019*, Hanoi, Vietnam, November 2019. [EI]
2. Yang, K-H[✉], Lai, Z. W.[Ⓢ], Chiang, J[Ⓢ], Lin, M.L., (2019) "Model Tests on Geosynthetic-Reinforced Soil Foundation subjected to Normal Faulting", *Proceedings of the 8th Civil Engineering Conference in the Asian Region, CECAR8*, Tokyo, Japan, April 2019.
3. Lu, H.C.[Ⓢ], Gonzaga M.[Ⓢ], Tseng, T. L. and Yang, K-H, (2019) "Model Tests to Evaluate the Performance of Geosynthetic- Reinforced Soil Wall with Marginal Backfill subjected to Rainfall", *Proceedings of the 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 16ARC*, Taipei, Taiwan, October 2019. [EI]
4. Nguyen, T.S.[Ⓢ], and Yang, K-H[✉], (2019) "Design of Geosynthetic-Reinforced Soil Structures against Rainfall considering Regional Hydrological Conditions", *Proceedings of the 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 16ARC*, Taipei, Taiwan, October 2019. [EI]
5. Muntohar, A.S., Fata, N., Jotisankasa, A., and Yang, K-H, (2019) "Suction Monitoring and Stability of the Volcanic-Residual Soil Slope during Rainfall", *Proceedings of the 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 16ARC*, Taipei, Taiwan, October 2019. [EI]
6. Rus, T.Y.[Ⓢ], Hsiung, B-C, Yang, K-H, (2018) "3D Finite Element Analysis of Deep Excavation in Central Jakarta using Total and Effective Shear Strength Properties", *Proceedings of the 20th Southeast Asian Geotechnical Conference and the 3rd Inaugural AGSSEA Conference, 20SEAGC/3AGSSEA*, Jakarta, Indonesia, November 2018.
7. Yang, K-H[✉], Thuo, J.N. and Liu, C. N., (2018) "Coupled Hydro-mechanical Analysis of a Multi-tier Geosynthetic-Reinforced Soil Slope subject to Rainfall Infiltration", *The 11th International Conference on Geosynthetics, 11ICG*, Seoul, Korea, September 2018. [EI]

8. Nguyen, T.S., and Yang, K-H, (2018) “Geosynthetic-Reinforced Soil Slopes with Different Backfills and Reinforcements subjected to Rainfall Infiltration”, *The 11th International Conference on Geosynthetics*, 11ICG, Seoul, Korea, September 2018. [EI]
9. Uzuoka, R., Hizen, D., Nakai, Y., Matsumaru, T., and Yang, K-H, (2018) “Seismic Behavior of Unsaturated Embankment after Rainfall”, *Proceedings of the 7th International Conference on Unsaturated Soils, UNSAT2018*, Hong Kong, China, August 2018.
10. Yang, K-H[✉], Adilehou, W. M.[©], Jian, S-T.[©], Hsiung, B-C (2017) “Permeability and Critical Hydraulic Gradient of Fiber-Reinforced Sand subject to Seepage”, *Proceedings of the 2nd International Symposium on Asia Urban GeoEngineering (Springer Series in Geomechanics and Geoengineering)*, 2nd ISAUG, Changsha, China, November 2017. [EI]
11. Hung, C., Hsiung, B-C, Yang, K-H, Ge, L. (2017) “Effect of Foreshocks of the 2016 Kumamoto Earthquakes on the Aso-Bridge Slope”, *Proceedings of the 2nd International Symposium on Asia Urban GeoEngineering, (Springer Series in Geomechanics and Geoengineering)*, 2nd ISAUG, Changsha, China, November 2017. [EI]
12. Wu, H-P., Hsieh, H-S, Ge, L, Hsiung B-C, Hung, C, and Yang, K-H (2017) “Simplified Approach to Analyze Diaphragm Wall Deflection Considering Buttress Walls”, *Proceedings of the 2nd International Symposium on Asia Urban GeoEngineering, (Springer Series in Geomechanics and Geoengineering)*, 2nd ISAUG, Changsha, China, November 2017. [EI]
13. Hsiung, B-C., and Yang, K-H, (2017) “Displacement of Ground and Structure induced by Deep Excavations in Loose to Medium Dense Sand”, *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering, ICSMGE 2017*, Seoul, South Korea, September 2017. [EI]
14. Yang, K-H[✉], Thuo, J.N. [©], Chen, J-W[©], and Liu, C-N, (2017) “Failure Investigation of a Multi-tier Geosynthetic-Reinforced Soil Slope with Marginal Backfill subject to Heavy Rainfall”, *The 5th Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation*, 5th GEDMAR, Taipei, Taiwan, September 2017.
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18. 楊國鑫 (2012)「土壤管湧破壞機制與其臨界水力條件之研究」, 國科會研究計畫期末報告 NSC100-2221-E-011-115, 中華民國 101 年 9 月。
19. 周瑞生、楊國鑫等 (2011)「臺北市災害防救深耕計畫(第一期第二年)」, 行政院災害防救委員會災害防救深耕 5 年中程計畫總結報告, 中華民國 100 年 12 月。
20. 周瑞生、楊國鑫等 (2011)「臺北市強化防救災教育訓練」, 行政院災害防救委員會災害防救深耕 5 年中程計畫成果報告書, 中華民國 100 年 12 月。
21. 楊國鑫 (2011)「加勁擋土牆內加勁材強度之評估:各項設計方法比較與最佳化設計」, 國科會研究計畫期末報告 NSC99-2218-E-001-006, 中華民國 100 年 9 月。
22. 周瑞生、楊國鑫等 (2010)「臺北市災害防救深耕計畫(第一期第一年)」, 行政院災害防救委員會災害防救深耕 5 年中程計畫總結報告, 中華民國 99 年 12 月。

23. 周瑞生、楊國鑫等 (2010) 「臺北市颱風與坡地災害潛勢調查分析」，行政院災害防救委員會災害防救深耕 5 年中程計畫成果報告書，中華民國 99 年 12 月。
24. 吳富春、楊國鑫等 (2010) 「湧泉坑對於都市型河川生態復育成效評估：拆除河床封底之生態效益先期研究-子計畫二：湧泉坑之地貌水理特性與河川環境關聯性探討(1/3)」，國科會研究計畫期末報告 NSC98-2627-B-005-002，中華民國 99 年 5 月。
25. Yang, K-H (2009), "Stress Distribution within of Geosynthetic-Reinforced Soil Structures", *Ph.D. Dissertation, Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, Austin, Texas, USA.*
26. Yang, K-H, Zornberg, J. G., and Wright, S. G. (2008), "Numerical Modeling of Narrow MSE Walls with Extensible Reinforcements", *Center for Transportation Research (CTR), Report No. 0-5506-2, Austin, Texas, February 2008.*
27. Kniss, K.T., Wright, S. G., Zornberg, J. G. and Yang, K-H (2007), "Design Considerations for MSE Retaining Walls Constructed in Confined Spaces", *Center for Transportation Research (CTR), Report No. 0-5506-1, Austin, Texas, October 2007.*
28. 吳富春、楊國鑫 (2002)，「水田生態環境及微氣候模式(二)」，行政院農委會委託研究計畫期末報告，中華民國 91 年 12 月。

TECHNICAL PRESENTATIONS

Keynote Lecture

1. Keynote Lecture, "Performance of Geosynthetic-Reinforced Low Permeable Soil improved by Sandwiching Reinforcement in Thin Layers of Sand", Taiwan Geosynthetic Society Annual Meeting, 中華地工材料協會年會, Taipei Taiwan, March 2015
2. Keynote Lecture, "Finite Element Modeling of Geotechnical Engineering" and "Application and Design of Geosynthetics", Geotechnical Short Course organized by the Center for Geotechnical Hazards, Parahyangan Catholic University, Bandung Indonesia, August 22 -23, 2014
3. Keynote Lecture, "Stress Distribution within Geosynthetic-Reinforced Soil Structures", Taiwan Geosynthetic Society Annual Meeting, 中華地工材料協會年會, Taipei Taiwan, March 2010

Conference Presentation and Invited Lecture

Conference

1. Presentation, "Coupled Hydro-mechanical Analysis of a Multi-tier Geosynthetic-Reinforced Soil Slope subject to Rainfall Infiltration", *The 11th International Conference on Geosynthetics*, IICG, Seoul, Korea, September 2018.
2. Presentation, "Failure Investigation of a Multi-tier Geosynthetic-Reinforced Soil Slope with Marginal Backfill subject to Heavy Rainfall", *The 5th Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation*, 5th GEDMAR, Taipei, Taiwan, September 2017.
3. Invited Presentation, "Failure Case Study of a Geosynthetic-Reinforced Soil Wall with Marginal Backfill subject to Rainfall Infiltration", *Symposium for Assessment and Analysis of Large-scale Landslide, The 2nd Computational Mechanics Conference in Taiwan*, ACMT 2016, Taipei, Taiwan, October 2016.
4. Presentation, "Coupled Hydro-Mechanical Analysis of Rainfall Infiltration induced Slope Excessive Deformation", *International Workshop on Geotechnical Natural Hazards – The 7th Taiwan–Japan Joint Workshop on Hazards from Large Earthquake and Heavy Rainfall*, Pingtung, Taiwan, September 2016.
5. Presentation, "Numerical Study on Lateral Bearing Capacity and Failure Model of

- Geosynthetic-Reinforced Soil Barriers", *The 15th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering*, 15ARC, Fukuoka, Japan, November 2015.
6. Presentation, "Finite Element Analyses of Failure Mode and Lateral Bearing Capacity of Geosynthetic-Reinforced Soil Barrier", *The 5th China Geosynthetic Conference on Soil Reinforcement*, 第五屆全國土工合成材料加筋土學術研討會, Chengdu China, May 2015
 7. Invited Presentation, "Hydro-mechanical Coupling Analyses of Taipei Maokong Gondola Slope Failure", 2015 International Forum on Advanced Technologies, IFAT2015, Tokushima Japan, January 2015
 8. Presentation, "Effect of Reinforcement Anchorage on the Plane Strain Behavior of Geogrid-Reinforced Sand", The 10th International Conference on Geosynthetics, 10 ICG, Berlin, Germany, September 2014
 9. Presentation, "Experimental Study on Seepage Failure of Uniform and Gap-Graded Soils", The 15th Conference of Taiwan Geotechnical Engineering, 第 15 屆臺灣大地工程研討會, Yunlin Taiwan, September 2013
 10. Presentation, "Multi-tiered Geosynthetic-Reinforced Soil Walls for Repairing Typhoon-Induced Slope Failure: Can We Design using Limit Equilibrium Analysis", The 18th Southeast Asian Geotechnical Conference and the 1st Inaugural AGSSEA Conference, 18SEAGC/1AGSSEA, Singapore, May 2013.
 11. Presentation, "Acceleration Amplified Responses of Geosynthetic-Reinforced Soil Structures with a Wide Range of Input Ground Acceleration", ASCE Geo-Congress 2013, San Diego, California, March 2013
 12. Invited Presentation, "Limit Equilibrium Analyses of Multi-tiered Tiered Geosynthetic-Reinforced Soil Walls", Pacific-Rim Workshop on Innovations in Civil Infrastructure Engineering, PSW2013, 泛太平洋土木基礎建設技術創新研討會, Taipei Taiwan, January 2013
 13. Presentation, "Evaluation of Various Design Methods for Predicting Reinforcement Tension within Geosynthetics-Reinforced Soil Structures", The 7th Asian Young Geotechnical Engineers Conference, 7AYGEC, Tokushima, Japan, September 2012.
 14. Presentation, "Backfill Stress and Strain Information within a Centrifuge Geosynthetic-Reinforced Slope under Working Stress and Large Soil Strain Conditions", ASCE Geo-Congress 2012, Oakland, California, March 2012
 15. Poster Presentation, "Mobilization of Reinforcement Tensions within Geosynthetic-Reinforced Soil Structures", Earth Retention Conference 3, ER2010, Bellevue, Washington, August 2010.
 16. Presentation, "Stress Distribution within Geosynthetic-Reinforced Soil Structures", International Symposium on Urban Geotechnical Engineering, 國際都會大地工程研討會, Taipei Taiwan, June 2010
 17. Invited Lecture, "Reliability-Based Design for External Stability of Narrow Mechanically Stabilized Wall: Calibration from Centrifuge Tests", The 17th South Asia Geotechnical Conference, 17SEAGC, 第 17 屆東南亞大地工程研討會, Taipei Taiwan, May 2010.
 18. Invited lecture, "Application of Geosynthetics on Reinforced Soil Retaining Structures", 2009 Civil and Ecological Engineering Conference, 2009 土木與生態工程研討會, I-Shou University, Kaohsiung Taiwan, January 2010
 19. Presentation, "Location of Failure Plane within Narrow GRS Wall Systems", The Geosynthetics 2009 Conference, Geosynthetics 2009, Salt Lake, Utah, USA, February 2009.
 20. Invited Lecture, "Location of Failure Plane within Narrow GRS Wall Systems", Grand Rounds of Geo-Institute Graduate Student Organization, The University of Texas at Austin, 2009
 21. Presentation, "Isotropic Work Softening Model for Frictional Geomaterials: Development Based on Lade and Kim Soil Constitutive Model", The XXIX Iberian Latin-American

- Congress on Computational Methods in Engr., CILAMCE 2008, Maceio, Brazil, November 2008.
22. Presentation, "Finite Element Analyses for Centrifuge Modeling of Narrow MSE Walls", The First Pan American Geosynthetics Conference, GEOAMERICAS-2008, Cancun, Mexico, March 2008.
 23. Presentation, "The Coefficient of Earth Pressure in MSE Retaining Walls Placed in Front of Stable Faces with Limited Spaces", Graduate and Industry Network Conference, Graduate Engineering Council, The University of Texas at Austin, USA, February 2006.
 24. Presentation, "Earth Pressures and Design Considerations of Narrow MSE Walls", The ASCE Annual Meeting-Texas Section, Taylor, Texas, USA, April 2007.

University Seminar

1. Invited Seminar, "Introduction of Geosynthetics: Application to Construction, Disaster Mitigation, and, Natural Protection", Dept. of Civil Engineering, Chung Yuan Christian University, 中原大學土木工程系, Taoyuan Taiwan, October 2019
2. Invited Seminar, "Failure Case Study of A Multi-tier GRS Slope with Marginal Backfill subject to Rainfall Infiltration", Dept. of Civil Engineering, National Taiwan University, 國立臺灣大學土木工程系, Taipei Taiwan, October 2016
3. Presentation, "Numerical Analyses of Combined Geohazards induced Failures by Earthquake and Heavy Rainfall", University of Tokushima, Tokushima, Japan, November 27, 2015
4. Invited Seminar, "Recent Research on Geo-environmental and Geo-ecological Engineering", Dept. of Civil Engineering, National Taipei University of Science and Technology, 國立臺北科技大學土木工程系, Taipei Taiwan, October 2015
5. Invited Seminar, "Recent Research on Geo-environmental and Geo-ecological Engineering", Dept. of Bioenvironmental System Engineering, National Taiwan University, 國立臺灣大學生物環境系統工程系, Taipei Taiwan, October 2015
6. Invited Seminar, "Geosynthetic-Reinforced Soil Structures for Engineering Applications, Natural Disaster Mitigation and Environmental Protection", Dept. of Civil and Environmental, University of Tokushima, Tokushima, Japan, November 28, 2014
7. Presentation, "Review of Landslides caused by Joint Effects of Strong Earthquake and Heavy Rainfall", University of Tokushima, Tokushima, Japan, November 29, 2014
8. Invited Seminar, "Successful Life Attitudes for Young Engineers", Dept. of Civil Engineering, Parahyangan Catholic University, Bandung Indonesia, August 25, 2014
9. Invited Seminar, "Geosynthetic-Reinforced Soil Structures for Engineering Applications, Natural Disaster Mitigation and Environmental Protection", Dept. of Civil Engineering, National Central University, 國立中央大學土木系大地組, Taoyuan Taiwan, March 2014
10. Invited Seminar, "Geosynthetics for Engineering Applications, Natural Disaster Mitigation and Environmental Protection", Dept. of Construction Engineering, National Taiwan University of Science and Technology, 國立臺灣科技大學營建工程系, Taipei Taiwan, Dec 2012
11. Invited Seminar, "Geosynthetics for Engineering Applications, Natural Disaster Mitigation and Environmental Protection", Dept. of Bioenvironmental System Engineering, National Taiwan University, 國立臺灣大學生物環境系統工程系, Taipei Taiwan, April 2012
12. Invited Seminar, "Design and Analysis of Mechanically-Stabilized Earth Retaining Structures", Dept. of Civil Engineering, National Ilan University, 國立宜蘭大學土木, Ilan Taiwan, April 2011
13. Invited Seminar, "Application, Design and Behavior of Geosynthetic-Reinforced Soil Structures", Dept. of Civil Engineering, National Taiwan University, 國立臺灣大學土木工程系大地工程組, Taipei Taiwan, December 2010

14. Invite Seminar, “Application and Design of Geosynthetic-Reinforced Soil Structures”, Dept. of Construction Engineering, National Yunlin University of Science and Technology, 國立雲林科技大學營建系, Yunlin Taiwan, October 2010
15. Invited Seminar “Design of Narrow MSE Wall Systems”, Dept. of Civil Engineering, National Chiao Tung University, 國立交通大學土木工程系大地組, Hsinchu Taiwan, 2009
16. Invited Seminar, “Design of Narrow MSE Wall Systems”, Dept. of Construction Engineering, National Taiwan University of Science and Technology, 國立臺灣科技大學營建工程系大地組, Taipei Taiwan, 2009
17. Presentation, “Evolution of Failure Surface in Geosynthetics-Reinforced Slope”, The 13th Conference of Taiwan Geotechnical Engineering, 第 13 屆臺灣大地工程研討會, Yilan Taiwan, August 2009 .
18. Invited Seminar, “Location of Failure Plane within Narrow GRS Wall Systems”, Dept. of Civil Engineering, National Central University, 國立中央大學土木工程系大地組, Taoyuan Taiwan, October 2009
19. Invited Seminar, “Design and Application of Narrow MSE Wall Systems”, Dept. of Civil Engineering, National Cheng Kung University, 國立成功大學土木工程系, Tainan Taiwan, 2007
20. Invited Seminar, “Design of Narrow MSE Wall Systems”, Dept. of Civil Engineering, National Chi Nan University, 國立暨南國際大學土木工程系, Puli Taiwan, 2007
21. Invited Lecture, “Earth Pressures of Narrow MSE Walls with Inextensible Reinforcements”, Grand Rounds of Geo-Institute Graduate Student Organization, The University of Texas at Austin, 2007

Workshops and Short Courses

1. Course title “Introduction of Geosynthetics: Application to Construction, Disaster Mitigation, and, Natural Protection”, Special Lecture, held by Soil and Water Conservation Bureau, Council of Agriculture, 淺談土工合成材應用-以工程、防災與自然環境保護為例, 水保局主管會報專題演講, 水土保持局主辦, Nantou Taiwan, September 2019
2. Course title “Introduction and Application of Geosynthetics”, Military engineering materials: Innovation and Practical Application, held by Chung Cheng Institute of Technology, National Defense University, 土工合成材之介紹: 應用於工程、防災與自然環境保護, 國軍工程材料創新與應用實務講習班, 國防大學理工學院主辦, Taoyuan Taiwan, July 2019
3. Course title “Disaster Prevention Specialist and Disaster Prevention System in Taiwan”, Disaster Prevention Specialist Program, held by Taipei City Fire Department, Taipei City Government, 防災士職責與任務與我國防災體系與運作, 防災士培訓課程, 臺北市政府消防局主辦, Taipei Taiwan, 2019
4. Course title “Recent Disaster Experience and Characteristics in Taiwan”, Disaster Prevention Specialist Program, held by Taipei City Fire Department, Taipei City Government, 我國近年災害經驗與災害特性, 防災士培訓課程, 臺北市政府消防局主辦, Taipei Taiwan, 2019
5. Course title “Acquirement and Application of Disaster Management Information and Disaster Resilience Community Plan”, Disaster Prevention Specialist Program, held by Taipei City Fire Department, Taipei City Government, 資訊掌握、運用與社區防災計畫, 防災士培訓課程, 臺北市政府消防局主辦, Taipei Taiwan, 2019
6. Course title “Disaster Prevention Specialist and Resilience Community”, Continued Education and Training Program for Disaster Prevention, held by Taipei City Fire Department, Taipei City Government, 防災士與韌性社區課程, 臺北市政府消防局主辦, Taipei Taiwan, 2018
7. Course title, “Geosynthetic-Reinforced Soil Structures: Application for Natural Disaster Mitigation and Failure Case Study”, organized by Land Engineering Consultants, 加勁擋土牆防災應用與破壞案例分析探討, 青山工程顧問公司主辦, Taipei Taiwan, June 11,

2018

8. Course title, “Standard Test Method for Geosynthetics”, organized by Water Resources Agency, Ministry of Economic Affairs, 土工合成材試驗規範, 經濟部水利署主辦, Taichung Taiwan, April 24, 2018
9. Course title, “Numerical Analysis on Slope Stability and Application of Green Reinforced Structures to Slope Stabilization”, organized by Taiwan Power Company, 工程地質專業人力資源庫專題演講, 台灣電力公司主辦, Taipei Taiwan, December 9, 2016
10. Course title, “Geosynthetics for Engineering Applications, Natural Disaster Mitigation and Environmental Protection”, Short course for Students from La Trobe University, Australia, organized by National Taiwan University of Science and Technology, 澳洲拉籌伯大學短期來台遊學, 國立臺灣科技大學主辦, Taipei Taiwan, July 12, 2016
11. Course title, “Coupled Hydro-Mechanical Analysis of Unsaturated Slopes subjected to Rainfall Infiltration: Case Study on Two Instable Slopes adjacent to Taipei Maokong Gondola”, Workshop on application of Finite Element Modeling in Deep Excavation and Slope Engineering”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 有限元素法於大地工程應用技術研討會-深開挖與邊坡工程, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, April 12, 2016
12. Course title “Awareness and Prevention of Debris Flow and Landslide Disasters”, Taipei Xinyi District Office Emergency Operations Center Personnel Training Program, held by Taipei City Government 臺北市信義區災害應變中心編組人員課程, 臺北市信義區公所主辦, Taipei Taiwan, 2015
13. Course title, “Design of Geosynthetic-Reinforced Soil Structures under Static and Seismic Loadings”, organized by Gold-Joint Industry and National Chi Nan University, 綠色工程精英培育課程, 盟鑫工業公司與國立暨南國際大學主辦, Taichung Taiwan, March 29, 2015
14. Course title, “Finite Element Analyses: Introduction, Theory and Case Study”, Continued Education and Training Program for Engineer Staff from the Sinotech Engineering Services. LTD, 中興工程教育訓練課程, 中興工程顧問公司主辦, Taipei Taiwan, November 5, 2014
15. Course title, “Finite Element Modeling for Geotechnical Engineering” and “Application and Design of Geosynthetics”, organized by the Center for Geotechnical Hazards, Parahyangan Catholic University, Bandung Indonesia, August 22 -23, 2014
16. Course title, “Design of Geosynthetic-Reinforced Soil Structures under Static and Seismic Loadings”, organized by Gold-Joint Industry and National Chi Nan University, 綠色工程精英培育課程, 盟鑫工業公司與國立暨南國際大學主辦, Taichung Taiwan, March 22, 2014
17. Course title, “Geosynthetic-Reinforced Soil Structures: Application, Construction and Design”, organized by Kaohsiung Professional Civil Engineers Association, 土工合成材設計應用工程實務課程, 高雄市土木技師公會主辦, Kaohsiung Taiwan, Feb 15, 2014
18. Course title, “Finite Element Analyses of Two-Tiered Geosynthetic-Reinforced Soil Walls: Comparison with Centrifuge Tests and Limit Equilibrium Results”, Finite Element Workshop on Geotechnical Engineering”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 有限元素法在大地工程之應用課程, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, November 14, 2013
19. Course title “Introduction of Major Disaster Potentials and Evacuation Shelter in Taipei City, Business Disaster Prevention Program, held by Taipei City Fire Department, Taipei City Government, 南港軟體園區企業防災講座課程, 臺北市政府消防局, July 29, 2013
20. Course title “Community Environmental Assessment and Disaster Prevention”, Community Disaster Prevention Program, held by Taipei City Fire Department, Taipei City Government, 臺北市社區防災課程, 臺北市政府消防局, 2013
21. Course title, “Finite Element Analyses: Introduction, Theory and Application”, Continued

Education and Training Program for Engineer Staff from the Huan-Hsin Technology and Engineering Services. LTD, 環興科技教育訓練課程, 環興科技公司主辦, Taipei Taiwan, February 23, 2013

22. Course title, “Finite Element Analyses and Verification of Geosynthetic-Reinforced Soil Structures”, Workshop on Advanced Geotechnical Finite Element Modeling in Analyses of Underground Construction”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 高階有限元素法在地下工程分析上之實務應用課程, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, June 20, 2012
23. Course title, “Geosynthetics for Engineering Applications, Natural Disaster Mitigation and Environmental Protection”, Continued Education and Training Program for Faculty from the Zhejiang Institute of Technology, China, organized by National Taiwan University of Science and Technology, 浙江高等職業技術學院(校)師資培訓專業課程, 國立臺灣科技大學主辦, Taipei Taiwan, June 15, 2012
24. Course title “Awareness, Monitoring and Engineering Solution for Landslide Disasters”, Community Disaster Prevention Program, held by Taipei City Fire Department, Taipei City Government, 臺北市社區防災課程, 臺北市政府消防局, 2012
25. Course title “Current Geotechnical Research Activities in National Taiwan University of Science and Technology”, Continued Education and Training Program, held by Fu Tsu Construction Co., Ltd, 互助營造教育訓練課程, 互助營造公司, July 30, 2011
26. Course title “Awareness, Monitoring and Engineering Solution for Landslide Disasters”, Community Disaster Prevention Program, held by Emergency Operations Center, Taipei City Government, 臺北市社區防災課程, 臺北市政府災害防救中心, 2011
27. Course title “Introduction of Major Disaster Potentials in Taipei City, Taipei Military Instructor Summer Workshop, held by Department of Education, Taipei City Government, 臺北市軍訓教官暑假工作研習課程, 臺北市政府教育局, July 6, 2011
28. Course title “Introduction of Major Disaster Potentials in Taipei City, Continued Education and Training Program, held by Emergency Operations Center, Taipei City Government,, 臺北市政府各局處與區應變中心教育訓練課程, 臺北市政府災害防救中心, May 26 and June 13, 2011
29. Course title “Awareness, Monitoring and Engineering Solution for Landslide Disasters”, Community Disaster Prevention Program, held by Emergency Operations Center, Taipei City Government, 臺北市社區防災課程, 臺北市政府災害應變中心, 2010

RESEARCH GRANT AND FUNDING

Ministry of Science and Technology

- PI, “Behavior and Design Methods of Geosynthetic-Reinforced Soil Walls subjected to Rainfall”, funded by Ministry of Science and Technology, 降雨作用下加勁擋土牆力學行為與設計方法之研究, 科技部優秀年輕學者計畫(三年期), 主持人, MOST107-2628-E-002-003-MY3, NT\$2,706,000, August 2018-July 2021. ***Outstanding Young Scholar Research Project**
- PI, “Experimental Model Tests on Fiber-Reinforced Soil Embankment”, funded by Ministry of Science and Technology, 纖維加勁土堤之物理模型試驗研究, 科技部專題研究計畫, 主持人, MOST106-2221-E-011-046, NT\$866,000, August 2017-July 2018.
- PI, “Hydraulic Conductivity and Piping Resistance of Fiber-Reinforced Soil”, funded by Ministry of Science and Technology, 纖維加勁土壤之水力行為研究, 科技部專題研究計畫, 主持人, MOST105-2221-E-011-038, NT\$733,000, August 2016-July 2017.
- PI, “Improvement of Permeability and Strength of Geosynthetic-Reinforced Low Permeable Soil: by Sandwiching Reinforcement in Thin Layers of Sand”, funded by National Science Council, 利用薄砂層改善低滲透性加勁土壤之透水性與力學行為, 國科會優秀年輕學者計畫(三年期), 主持人, NSC102-2221-E-011-057-MY3, NT\$2,098,000,

August 2013-July 2016. *Outstanding Young Scholar Research Project

- PI, “Experimental Study of Reinforced Soil Behavior: A New Approach to Measure Mobilization and Distribution of Reinforcement Loads”, funded by National Science Council, 加勁土壤力學行為之試驗研究：以新方法探討加勁材應力發展與分佈，國科會專題研究計畫，主持人，NSC101-2221-E-011-112, NT\$769,000, August 2012-July 2013.
- PI, “Study on Failure Mechanism and Critical Hydraulic Conditions in Soil Piping”, funded by National Science Council, 土壤管湧破壞機制與其臨界條件之研究，國科會專題研究計畫，主持人，NSC100-2221-E-011-115, NT\$510,000, August 2011-July 2012.
- PI, “Determination of Reinforcement Loads in Geosynthetic-Reinforced Soil Structures: Comparison of Various Design Methods and Proposal of an Optimized Design”, funded by National Science Council, 加勁擋土牆內加勁材強度之評估：各項設計方法比較與最佳化設計，國科會新進人員研究計畫，主持人，NSC99-2218-E-001-006, NT\$575,000, May 2010-July 2011.

Industry-Government-Academia Collaboration Project

Principal Investigator

- PI, “Community-based Disaster Management Program in Land Hill Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 107 年度臺北市山坡地住宅自主防災，臺北市大地工程處委託研究案，主持人，NT\$3,520,000, March 2018-Dec 2018.
- PI, “Experimental Evaluation of the Effect of Ground Improvement Admixture (HSC301) Conditioner on Improving Soil Shear Strength”, funded by Taiwan Construction Research Institute, 水泥系處理劑(HSC301)阻水性能複校分析研究，臺灣營建研究院委託研究案，主持人，NT\$300,000, June 2015-Dec 2015.
- PI, “Preliminary Study on Business Disaster Prevention Plan in Taipei City”, funded by Taipei City Fire Department, 臺北市企業防災推動機制，臺北市政府消防局委託研究案，主持人，NT\$600,000, April 2013-Sep 2013.
- PI, “Evaluation of Filtration and Drainage Efficiency of Hybrid System Composed of Granular Soil and Nonwoven Textile Layers”, funded by Tree-Garden Co., Ltd., 粗顆粒土壤與不織布複層之過濾排水效果評估，樹花園有限公司委託研究案，主持人，NT\$150,252, April 2013-March 2014.
- PI, “Establishment of Key Geotechnical Properties and Numerical Methods for Deep Excavation in Jakarta”, funded by CECI Engineering Consultants, Inc., 雅加達地區大地工程基本參數及深開挖分析模式建立，臺灣世曦工程顧問公司委託研究案，主持人，NT\$585,480, Jan 2013-Dec 2013.

Co-Principal Investigator

- Co-PI, “Field Measurement and Channel Stability Analysis from Kanjim Bridge to Wulin Bridge at Dahan River”, funded by Water Resources Agency Ministry of Economic Affairs. 大漢溪炭津橋至武嶺橋下游中庄攔河堰河段監測調查及河道穩定評估，經濟部水利署第十河川局委託研究案，協同主持人，NT\$2,670,000, May 2019-Dec 2019.
- Co-PI, “Community-based Disaster Management Program in Land Hill Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 108 年度臺北市山坡地住宅自主防災，臺北市大地工程處委託研究案，協同主持人，NT\$2,540,000, March 2019-Dec 2019.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (2/5)”, funded by Taipei City Fire Department, 臺北市災害防救深耕計畫第三期，臺北市政府消防局委託研究案，協同主持人，NT\$5,152,000, March 2019-Dec 2019.

- Co-PI, “Community-based Disaster Management Program in Land Hill Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 106 年度臺北市山坡地住宅自主防災，臺北市大地工程處委託研究案，協同主持人，NT\$3,000,000, March 2017-Dec 2017.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (1/5)”, funded by Taipei City Fire Department, 臺北市災害防救深耕計畫第三期，臺北市政府消防局委託研究案，協同主持人，NT\$4,700,000, March 2018-Dec 2018.
- Co-PI, “Guidelines of Construction and Safety Improvement of Hand-Dug Pile Walls”, funded by Institute of Labor, Occupational Safety, and Health, Ministry of Labor. 人工擋土柱開挖施工安全改善實物及指引編撰，行政院勞動部勞動及職業安全衛生研究所委託研究案，協同主持人，NT\$1,650,000, January 2018-November 2018.
- Co-PI, “Assessment of Efficiency and Feasibility of Applying Green Technique to Protect the Dredged Debris as Backfill against River Erosion”, funded by Soil and Water Conservation Bureau, Council of Agriculture. 清淤土石再利用綠色工法之效益及可行性評估，行政院農委會水土保持局委託研究案，協同主持人，NT\$2,950,000, March 2017-Dec 2017.
- Co-PI, “Community-based Disaster Management Program in Land Hill Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 106 年度臺北市山坡地住宅自主防災，臺北市大地工程處委託研究案，協同主持人，NT\$3,000,000, March 2017-Dec 2017.
- Co-PI, “Development of A Rockfall Prevention Fence with Active Warning System”, funded by China Engineering Consultants, Inc. and Raiteku Co., LTD.. 邊坡防護警示柵欄工法之開發，中華顧問工程司及托爾斯公司委託研究案，協同主持人，NT\$2,000,000, Dec 2016-Dec 2017.
- Co-PI, “Community-based Disaster Management Program in Land Hill Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 105 年度臺北市山坡地住宅自主防災，臺北市大地工程處委託研究案，協同主持人，NT\$2,850,000, March 2016-Dec 2016.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (3/3)”, funded by Taipei City Fire Department, *received “Excellent Project Execution Award” from national-wide evaluation. 臺北市災害防救深耕計畫第一期，臺北市政府消防局委託研究案，協同主持人，NT\$10,550,000, Feb 2012-Dec 2012. *獲全國深耕計劃評鑑優等.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (2/3)”, funded by Taipei City Fire Department, *received “Excellent Project Execution Award” from national-wide evaluation. 臺北市災害防救深耕計畫第一期，臺北市政府消防局委託研究案，協同主持人，NT\$10,600,000, Feb 2011-Dec 2011. *獲全國深耕計劃評鑑優等.

International Collaboration Project

- PI, “Trilateral academic and cultural exchange activity of civil engineering students, funded by National Taiwan University, 台日韓三校土木系學生學術交流活動，臺大重點姊妹校合作計畫，主持人，NT \$180,000, August 2018.
- PI, “The International Geotechnical Lecture in Taiwan by Dr. William Powrie”, Short-Term International Visiting Scholar Project funded by Ministry of Science and Technology, 科技部邀請國際科技人士短期訪問計畫，主持人，MOST105-2912-I-011-522, NT\$90,592, November 2016.
- PI, “Numerical Analyses of Combined Geohazards induced Failures by Earthquake and Heavy Rainfall (2/2)”, Collaboration Program between the National Taiwan University of Science and Technology and the University of Tokushima, funded by the National Taiwan University of Science and Technology, 地震與降雨引致複合災害之數值分析研究第二

- 期，臺科大-德島大學雙邊學術合作研究，主持人，NT \$200,000, July 2015-July 2016.
- PI, “Lateral Bearing Capacity and Failure Model of Geosynthetic-Reinforced Soil Barriers”, Short-Term Research Abroad Project funded by Ministry of Science and Technology, 加勁擋土壁壘側向承載力與破壞模式之研究，科技部國外短期研究計畫，主持人，MOST104-2918-I-011-006, NT\$270,950, July 2015-September 2015.
- PI, “The 54th Rankine Lecture in Taiwan by Dr. Guy Houlsby”, Short-Term International Visiting Scholar Project funded by Ministry of Science and Technology, 科技部邀請國際科技人士短期訪問計畫，主持人，MOST103-2912-I-011-523, NT\$52,084, December 2014.
- PI, “Numerical Analyses of Combined Geohazards induced Failures by Earthquake and Heavy Rainfall (1/2)”, Collaboration Program between the National Taiwan University of Science and Technology and the University of Tokushima, funded by the National Taiwan University of Science and Technology, 地震與降雨引致複合災害之數值分析研究第一期，臺科大-德島大學雙邊學術合作研究，主持人，NT \$250,000, July 2014-July 2015.

Intramural Research Project

- PI, “Behavior of Geosynthetic-Reinforced Soil Walls subjected to Rainfall”, Laurel Research Project, funded by National Taiwan University, 降雨作用下加勁擋土牆力學行為與設計方法之研究，臺大高等教育深耕計畫-桂冠型研究計畫，主持人，NT \$650,000, January 2019-June 2021.
- PI, “Model Tests on Retaining Walls subjected to Heavy Rainfall”, New Faculty Star-up Research Project, funded by National Taiwan University, 強降雨下擋土構造物物理模型試驗，臺大頂尖大學計畫-新進教師創始研究計畫，主持人，NT \$250,000, January 2018-June 2018.
- PI, “Investigation on the Behavior and Failure Mechanism of Geosynthetic-Reinforced Soil”, New Faculty Start-up Research Project, funded by National Taiwan University of Science and Technology, 加勁土壤力學行為與破壞機制之研究，臺科大頂尖大學計畫-新進教師啟動教學研究計畫，主持人，NT \$250,000, April 2011-August 2011.

PROFESSIONAL CONSULTING

- Consultant, “Monitoring and Analysis of the Pile Foundations of Maokong Gondola”, funded by Taipei Rapid Transit Corporation, 貓空纜車塔柱監測結果分析工作，臺北市大眾捷運股份有限公司委託研究案，專家顧問，July 2014-July 2020.
- Consultant, “Demonstration Project of Disaster Prevention System (2/2)”, funded by Taipei City Fire Department, 避災系統示範計劃第二期，臺北市政府消防局委託研究案，專家顧問，June 2014-December 2014.
- Consultant, “Demonstration Project of Disaster Prevention System (1/2)”, funded by Taipei City Fire Department, 申請 2016 年世界設計之都-市政建設亮點計劃-整合型避災系統設計-避災系統示範計劃第一期，臺北市政府消防局委託研究案，專家顧問，April 2013-December 2013.
- Consultant, “Bearing Capacity of JW Permeable Pavement System”, funded by Sinotech Engineering Services, Ltd, JW 透水混凝土鋪面承載力分析，環興科技公司委託研究案，專家顧問，January 2013-December 2013.
- Consultant, “Analysis and Application of Earth Pressure Induced by Deep Excavation of Finite Soil Body (2/2)”, funded by Fu Tsu Construction Co., Ltd, 有限土體引致之土壓分析及其對壁體變位之影響第二期，互助營造公司委託研究案，專家顧問，October 2011-September 2012.
- Consultant, “Disaster Prevention and Protection Project of Taipei City (1/3)”, funded by Taipei

City Fire Department, *this project received “A-Grade Project Execution Award” from national-wide evaluation. 臺北市災害防救深耕計畫第一期, 臺北市政府消防局委託研究案, 專家顧問, May 2010-Dec 2010. *獲全國深耕計劃評鑑甲等.

Consultant, “Analysis and Application of Earth Pressure Induced by Deep Excavation of Finite Soil Body (1/2)”, funded by Fu Tsu Construction Co., Ltd, 有限土體引致之土壓分析及其對壁體變位之影響第一期, 互助營造委託研究案, 專家顧問, July 2009-June 2011.

Teaching

INSTRUCTION

Courses at National Taiwan University (NTU)

- CIE5048-*Application of Geosynthetics* 土工合成材料之應用, (Graduate level), Introduction of the type, function and application of geosynthetics, properties and test methods of geosynthetics, soil-geosynthetic interaction, design method and theory, construction and quality control, analysis and performance of reinforced soil structures under static and seismic conditions.
- CIE7003- *Geotechnical Engineering Seminar* 大地工程專題討論, (Graduate level), A series of lectures on the current issues of geotechnical engineering in academic research or industrial practice. Compilation of effective summary reports and abstracts, evaluation of motivations and objectives in geotechnical research, scope and organization of research reports, critical evaluation of the literature, presentation of research results, analysis of results, compilation of conclusions.
- CIE3026-*Soil Mechanics* 土壤力學, (Undergraduate level), Basic characteristics of geological materials, soil classifications, physical, mechanical, and hydraulic properties, the effective stress principle, seepage, consolidation, stress distribution, settlement analysis, shear strength.
- CIE3028-*Foundation Engineering* 基礎工程, (Undergraduate level), Geotechnical design of shallow foundations, retaining structures, deep excavations and deep foundations. Coverage includes analyses of bearing capacity, settlement, pressure diagram and field tests of various foundation types.
- CIE2006-*Mechanics of Materials* 材料力學, (Undergraduate level), Tension, compression, and shear, axial loaded members, torsion, shear forces and bending moments, stresses in beams, deflections of beams, statically indeterminate beams, columns, analysis of stress and strain.
- CIE2012-*Engineering Materials and Soil Mechanics Lab* 工程材料與土壤力學試驗, (Undergraduate level), Laboratory tests on physical and engineering properties of construction material including steel, concrete and soil.

Courses at National Taiwan University of Science and Technology (Taiwan Tech)

- CT5608- *Advanced Foundation Engineering* 高等基礎工程, (Graduate level), Geotechnical design of shallow and deep foundations, including spread footings, mats, driven piles and drilled shafts. Coverage includes analyses of bearing capacity, settlement, group effects, lateral load capacity, wave equation and dynamic approaches, and field tests.
- CT5806-*Design of Reinforced Earth Retaining Structures* 加勁擋土結構物設計, (Graduate level), Design and analysis of earth retention walls and slopes. Coverage includes the selection, design and performance evaluation of earth retaining structures, theory involving earth pressure and soil-reinforcement interaction, design properties and test methods of geosynthetics, stability analysis under static and seismic conditions
- CT6501-*Numerical Methods in Geotechnical Engineering* 大地工程數值分析, (Graduate level), Application of various numerical concepts and methods to geotechnical engineering. Coverage includes computational soil mechanics, soil constitutive models, finite element method and simulation to the issues and problems of geotechnical engineering.
- CT5509-*Case Studies in Geotechnical Engineering* 大地工程個案分析, (Graduate level, Co-Instruction with other Geotech faculty) A series of lectures on current geotechnical engineering issues in academic research or industrial practice.

- CT5901-*Civil and Construction Engineering Seminar* 專題討論, (Graduate level), A series of lectures on current construction and civil engineering issues in academic research or industrial practice.
- CT3410-*Soil Mechanics* 土壤力學, (Undergraduate level), Basic characteristics of geological materials, soil classifications; physical, mechanical, and hydraulic properties, the effective stress principle, seepage, consolidation, stress distribution, settlement analysis, shear strength.
- CT3707-*Soil Mechanics Lab* 土壤力學試驗, (Undergraduate level), Geotechnical laboratory tests on soil physical and engineering properties.
- CT3409-*Intermediate Soil Mechanics* 中等土壤力學, (Undergraduate level), Soil compaction, soil stress-strain-volume relations, stress path, slope stability analyses, soil liquefaction assessment.
- CT3403-*Foundation Engineering* 基礎工程, (Undergraduate level), Geotechnical design of shallow foundations, retaining structures, deep excavations and deep foundations. Coverage includes analyses of bearing capacity, settlement, pressure diagram and field tests of various foundation types.
- CT3403-*Design of Foundation and Hillside-Special Projects* 基礎與山坡地設計(實務專題), (Undergraduate level, Co-Instruction with other faculty and professional engineers), Conduct a special geotechnical projects from planning of site investigation, methods of soil testing, simplification of field conditions for design, selection of geotechnical structures, design and analysis of selected structures and introduction of construction facilities.
- HC1010-*Introduction to Science and Technology* 科技概論, (Undergraduate level, Co-Instruction with other faculty), Introduction to the development and application of science and technology in various current practical fields.

Courses at the University of Texas at Austin (UT-Austin)

CE357- *Introduction to Geotechnical Engineering*, (Undergraduate level, The University of Texas at Austin), Geotechnical laboratory tests on soil physical and engineering properties.

I also have been the teaching assistant or grader for the courses of “CE357-*Earth Retaining Structures* (Graduate level)”, “CE387M.1-*Stability of Earth Slopes* (Gradual level)”, and “*Undergraduate Research Experience Program* (Undergraduate level)” in the University of Texas at Austin.

STUDENT SUPERVISION

Student Supervision Summary

	Completed	In Progress
Ph.D. Student	4	4
Master Student	38	3
Undergraduate Student	10	0
International Exchange Student	4	0

63 In Total

Student Awards

賴兆偉 (2018), master student in Taiwan Tech, received “Geotechnical Engineering Master Thesis Award, Taiwan Geotechnical Society, 107 年度大地工程碩士論文獎, 中華民國大地工程學會頒發。”

- Nguyen Thanh Son (2018), Ph.D. student in Taiwan Tech, was selected as one of the 10 young outstanding members to present his research paper in the IGS Young Members Forum in the 11th International Conference on Geosynthetics in Seoul, Korea, 獲選參加國際地工合成材研討會青年會議，並受邀上台進行研究論文簡報，參加晚宴及頒獎典禮，國際地工合成材協會頒發。
- 陳均維 (2017), master student in Taiwan Tech, received “Geotechnical Engineering Master Thesis Honorable Mention, Taiwan Geotechnical Society, 106 年度大地工程碩士論文佳作, 中華民國大地工程學會頒發。
- 呂育德, 黃慶瑜 (2015), undergraduate students in Taiwan Tech, received “Undergraduate Research and Innovation Award”, Ministry of Science and Technology, 103 年度大專生研究創新獎，科技部頒發。
- 呂育德, 黃慶瑜 (2015), undergraduate students in Taiwan Tech, received “3rd Place Prize of the Undergraduate Research Award”, Department of Civil and Construction Engineering, National Taiwan University of Science and Technology, 實務專題第三名，國立臺灣科技大學營建工程系頒發。
- Joseph Nganga Thuo (2014), master student in Taiwan Tech, was selected as one of the 10 young outstanding members to present his research paper in the IGS Young Members Session and invited to join the festive dinner in the 10th International Conference on Geosynthetics in Berlin, Germany, 獲選參加國際地工合成材研討會青年會議，並受邀上台進行研究論文簡報，參加晚宴及頒獎典禮，國際地工合成材協會頒發。
- 葉力瑜, Christian Haussner (2014), undergraduate students in Taiwan Tech, received “2nd Place Prize of the Undergraduate Research Award”, Department of Civil and Construction Engineering, National Taiwan University of Science and Technology, 實務專題第二名，國立臺灣科技大學營建工程系頒發。
- 林瑞鈞, 陳毅修, 藍子軒 (2013), master students in Taiwan Tech, received “3rd Place Prize of the Student English Competition”, Department of Construction Engineering, National Taiwan University of Science and Technology. 學生英語競賽第三名，國立臺灣科技大學營建工程系頒發。
- 林俊佑 (2012), master student in Taiwan Tech, received “Excellent Youth Award”, College of Engineering, National Taiwan University of Science and Technology, 臺科大工學院優秀青年獎，國立臺灣科技大學工學院頒發。
- 劉玳伶 (2012), master student in Taiwan Tech, received “International Geosynthetics Society Student Award”, from the International Geosynthetics Society-Taiwan Chapter, and also received travel grant to the 2012 Geosynthetics Asia Conference in Bangkok, Thailand. 國際地工合成材學生獎-臺灣代表，國際地工合成材協會頒發。
- Erick Y. Kencana (2012), master student in Taiwan Tech, received “International Geosynthetics Society Student Award”, from the International Geosynthetics Society-Indonesia Chapter, and also received travel grant to the 2012 Geosynthetics Asia Conference in Bangkok, Thailand. 國際地工合成材學生獎-印尼代表，國際地工合成材協會頒發。
- 徐梓隆, 陳世焯 (2011), undergraduate students in Taiwan Tech, received “1st Place Prize of the Best Undergraduate Research Award”, Department of Construction Engineering, National Taiwan University of Science and Technology. 最佳專題(第一名)獎，國立臺灣科技大學頒發。

Undergraduate Research Grants

1. 林勁儒 (2016), undergraduate students in Taiwan Tech, received Undergraduate Students Research Grant, Ministry of Science and Technology, topic: “Triaxial

Unconfined-Compression Tests on Fiber-Reinforced Cemented Silt for Soil Improvement.”
以三軸無圍壓縮試驗探討加勁纖維對粉土剪力強度之影響, 科技部大專學生研究計畫,
NSC105-2815-C-011-008-E, NT\$48,000, July 2016-Feb 2017.

2. 呂育德 (2014), undergraduate students in Taiwan Tech, received Undergraduate Students Research Grant, Ministry of Science and Technology, topic: “Geotechnical Ecological Engineering: The Influence of Unsaturated Soil Shear Strength on the Intertidal Habitat and Bivalve Behavior.” 不飽和土壤剪力強度對潮間帶生物棲地之影響研究, 科技部大專學生研究計畫, NSC103-2815-C-011-012-E, NT\$47,000, July 2014-Feb 2015.
3. 葉力瑜 (2013), undergraduate students in Taiwan Tech, received Undergraduate Students Research Grant, National Science Council, topic: “Drainage and Mechanical Behavior of Low Permeable Reinforced Soil and Its Improvement Measures: Application to design of reinforced retaining structures under typhoon and heavy rainfall conditions”. 低滲透性加勁土壤排水行為與改善措施之研究: 應用於颱風豪雨下加勁擋土結構物之設計, 國科會大專學生研究計畫, NSC102-2815-C-011-034-E, NT\$47,000, July 2013-Feb 2014.

Ph.D. Supervision in Progress

1. 吳昕明 (2019-2023 Expected), Potential Research Direction: “Performance of Geosynthetic-Reinforced Soil Structures under Rainfalls”, NTU.
2. 蔣榮 (2017-2021 Expected), Potential Research Direction: “Performance of Geosynthetic-Reinforced Soil Foundation across Fault”, NTU.
3. 曾世傑 (2016~2020 Expected), Potential Research Direction: “Use of Reinforced Earth for Protection against Blast Loads, Taiwan Tech.
4. Nguyen Thanh Son (2016~2020 Expected), Potential Research Direction: “Deformation Characteristics and Triggering Mechanism of Unstable Shallow Slopes upon Rainfall”, Taiwan Tech.

Ph.D. Supervision Completed

1. Williams Mathieu Adilehou (2017), Dissertation: “Hydraulic Responses of Fiber-Reinforced Soil Susceptible to Piping and Suffusion Failures”, Taiwan Tech.
2. Joseph Nganga Thuo (2017), Dissertation: “Hydro-Mechanical Coupled Analysis of Unsaturated Nature and Reinforced Soil Slopes”, Taiwan Tech.
3. Suliman Badawi Mohamed (2014), Dissertation: “Numerical Analyses and Design Considerations of Geosynthetic-Reinforced Two-Tier Structures”, Taiwan Tech.
4. Duc Minh Nguyen (2014), Dissertation: “Shear Behavior of Geosynthetic- Reinforced Granular and Cohesive Soils”, Co-supervised with Dr. S.H. Lee, Taiwan Tech.

Master Student Supervision Completed

1. Mark Gonzaga (2019), Thesis: “Influence of Backfill Fines Content on the Performance of Geosynthetic-Reinforced Soil Walls under Rainfall Infiltration”, NTU.
2. 呂昕臻 (2019), Thesis: “Evaluation of Improved Methods for Geosynthetic-Reinforced Soil Walls with Marginal Backfills subjected to Rainfall”, NTU.
3. 吳健鈞 (2019), Thesis: “Three Dimensional Finite Element Analysis of Deep Excavation in Taichung Gravel Deposit”, NTU.
4. 駱建澄 (2019), Thesis: “Numerical Evaluation of A Multi-tier Geosynthetic-Reinforced Soil Slope for Mudstone Slope Protection”, NTU.

5. Tatag Yufitra Rus (2018), Thesis: “3D Finite Element Analysis of Deep Excavation in Central Jakarta using Total and Effective Shear Strength Properties”, Taiwan Tech.
6. 李亦新 (2018), Thesis: “Performance and Design of Geosynthetic-Reinforced Soil Slopes subjected to Rainfall: Considering Regional Hydrological Conditions”, Taiwan Tech.
7. 賴兆偉 (2018), Thesis: “Model Tests on Geosynthetic-Reinforced Soil Foundations across a Normal Fault”, Taiwan Tech.
8. 白名旋 (2018), Thesis: “Model Tests on Fiber-Reinforced Sandy Embankments subjected to Seepage”, Taiwan Tech.
9. 張瑞勳 (2017), Thesis: “Three-Dimensional Finite Element Modeling of Geosynthetic-Reinforced Soil Structures subject to Lateral Loadings”, Taiwan Tech.
10. 陳均維 (2017), Thesis: “Hydro-Mechanical Coupled Analysis of A Multi-tier Geosynthetic-Reinforced Soil Slope subject to Rainfall Infiltration”, Taiwan Tech.
11. 魏韶邦 (2017), Thesis: “Fiber-Reinforced Gap-Graded Soil against Suffusion”, Taiwan Tech.
12. Ndey Awa Ndure (2017), Thesis: “Shear Behavior and Pore Water Pressure Generation of Fiber-Reinforced Silt under Consolidated-Undrained Compression”, Taiwan Tech.
13. 郭哲睿(2017), Thesis: “Failure Investigation of a Four Tier Geosynthetic- Reinforced Soil Slopes with Marginal Backfill”, Taiwan Tech.
14. 簡碩廷(2016), Thesis: “Experimental and Numerical Study of Hydraulic Responses of Fiber-Reinforced Sand subject to Seepage”, Taiwan Tech.
15. 李俊葦 (2016), Thesis: “Unconfined Compression Tests on Fiber-Reinforced Cemented Silt: Effect of Cement on Fiber Bonding Strength”, Taiwan Tech.
16. 林庭妤(2016), Thesis: “Numerical Analyses of Geosynthetic-Reinforced Soil Walls with Flexible Wrapped Facings”, Taiwan Tech.
17. Aila Wahyuning (2016), Thesis: “Establishment of Geotechnical Properties and 3D Numerical Models for Deep Excavation in Central Jakarta”, Taiwan Tech.
18. Anh Huynh Vo Duyen (2016), Thesis: “Geotextile- and Geogrid-Reinforced Soil Slopes with Various Backfills and Sand Cushion Thickness Subject to Rainfalls”, Taiwan Tech.
19. 唐嘉禧 (2015), Thesis: “Finite Element Analyses of Acceleration-Amplified Response within Geosynthetic-Reinforced Soil Structures”, Taiwan Tech.
20. 林渝朋 (2015), Thesis: “Evaluation of Suitability of Limit Equilibrium Analysis for Geosynthetic-Reinforced Soil Wall Design”, Taiwan Tech.
21. 林冠良 (2015), Thesis: “Hydro-mechanical Coupled Analyses of Rainfall induced Instabilities of Two Unsaturated Slopes”, Taiwan Tech.
22. Joseph Nganga Thuo (2014), Thesis: “Numerical Study of Infiltration into Unsaturated Clay Slopes with Nonwoven Geotextile Drains Sandwiched in Sand Cushions: Featuring Capillary Barrier Effect”, Taiwan Tech.
23. 藍子軒 (2014), Thesis: “Investigation on Acceleration Amplification within Geosynthetic-Reinforced Soil Structures under Dynamic Loading”, Taiwan Tech.
24. 陳毅修 (2014), Thesis: “Finite Element Study on Lateral Bearing Capacity and Failure Mode of Geosynthetic-Reinforced Soil Barriers”, Taiwan Tech.
25. 林瑞鈞 (2014), Thesis: “Experimental Evaluation of Filtration and Drainage Efficiency of Double Filter System Composed of Granular Soil and Nonwoven Textile Layers”, Taiwan Tech.

26. Wubete Y. Mengist (2014), Thesis: “Behavior of Geotextile Reinforced Clay and Improvement with Sand-Sandwich Technique under Unconsolidated Undrained Tests”, Taiwan Tech.
27. 張維洋 (2013), Thesis: “Influence of Reinforcement Stiffness on the Behavior of Reinforced Sand under Triaxial Compression Tests”, Taiwan Tech.
28. 林俊佑(2013), Thesis: “Experimental Study on Drainage Efficiency and Improvement Measures of Low Permeable Soil with Geosynthetic Drainage Layers”, Taiwan Tech.
29. 楊智皓 (2013), Thesis: “Reliability-Based Analysis for Internal Stabilities of Geosynthetic-Reinforced Soil Structures incorporating Model Uncertainties”, Taiwan Tech.
30. Ayesha Avanti (2013), Thesis: “Numerical Analyses of Jakarta MRT Deep Excavation Project”, Taiwan Tech.
31. Bondan Ciptoprakoso (2013), Thesis: “The Influence of Existing Foundations on Adjacent Deep Excavation: A Parametric Study using Finite Element Method”, Taiwan Tech.
32. Rizkiyati A. Zhuraida (2013), Thesis: “Limit Equilibrium Analyses of Multi-Tiered Geosynthetic-Reinforced Structures”, Taiwan Tech.
33. 汪俊彥 (2012), Thesis: “Experimental Study on Seepage Failure of Uniform and Gap-Graded Soils”, Taiwan Tech.
34. 劉玳伶 (2012), Thesis: “Evaluation of Various Design Methods for Predicting Reinforcement Loads within Flexible and Rigid Facing Geosynthetics-Reinforced Soil Structures”, Taiwan Tech.
35. 尤嘉倫 (2012), Thesis: “Reliability-Based Analysis for Internal Stabilities of Geosynthetic-Reinforced Soil Structures: Considering Earth Pressure and K-Stiffness Methods and Their Model Uncertainty”, Taiwan Tech.
36. Erick Y. Kencana (2012), Thesis: “Evaluation of Acceleration Amplified Response and Mobilized Reinforcement Loads within Geosynthetics-Reinforced Structures under Dynamic Loading”, Taiwan Tech.
37. 蔡明宏 (2011), Thesis: “Behavior of Reinforced Soil and the Mobilization of Reinforcement Strains using Triaxial Compression Tests”, Taiwan Tech.
38. Panji Utomo (2011), Thesis: “Evaluation of Various Design Methods for Predicting Reinforcement Tension within Geosynthetics-Reinforced Soil Structures”, Taiwan Tech.

Master Student Supervision in Progress

1. 吳昱葵 (2018~2020 Expected), Potential Research Direction: “Investigation of Slope Post-failure Mechanism using Material Point Method”, NTU.
2. 曾婷苓 (2018~2020 Expected), Potential Research Direction: “Experimental Evaluation of Effectiveness of Sand Cushion on Improving the Performance of Geosynthetic-Reinforced Soil Walls upon Rainfall”, NTU.
3. 詹于萱 (2018~2020 Expected), Potential Research Direction: “Finite Element Analysis of Geosynthetic-Reinforced Soil Foundations subjected to Fault Movement”, NTU.

Undergraduate Student Research Program Completed

1. 張祐齊 (2018), Topic: “Model Tests on Rainfall-Induced Shallow Landslide Failure”, NTU.
2. 林劭儒 (2016), Topic: “Triaxial Unconfined-Compression Tests on Fiber -Reinforced

Cemented Silt for Soil Improvement”, Taiwan Tech.

3. 呂育德 (2014), Topic: “Geotechnical Ecological Engineering: The Influence of Unsaturated Soil Shear Strength on the Intertidal Habitat and Bivalve Behavior”, Taiwan Tech.
4. 黃慶瑜 (2014), Topic: “Geotechnical Ecological Engineering: The Influence of Unsaturated Soil Shear Strength on the Intertidal Habitat and Bivalve Behavior”, Taiwan Tech.
5. 葉力瑜 (2013), Topic: “Drainage Efficiency and Improvement Measure of Low Permeable Reinforced Soils: Application to GRS structures design under typhoon and heavy rainfall conditions”, Taiwan Tech.
6. Christian Haussner (2013), Topic: “Drainage Efficiency and Improvement Measure of Low Permeable Reinforced Soils: Application to GRS structures design under typhoon and heavy rainfall conditions”, Taiwan Tech.
7. 徐梓隆 (2010), Topic: “Experimental Study on Failure Mechanism and Hydraulic Conditions of Soil Piping”, Taiwan Tech.
8. 陳世焯 (2010), Topic: “Experimental Study on Failure Mechanism and Hydraulic Conditions of Soil Piping”, Taiwan Tech.
9. 章紹騏 (2010), Topic: “Investigation on Potential Disaster Area and the Prevention Solutions”, Taiwan Tech.
10. 郭彬彬 (2009), Topic: “Investigation on Potential Disaster Area and the Prevention Solutions”, Taiwan Tech.

International Exchange Student Program

1. 楊惠(2018), Topic: “Research on Geosynthetic-Reinforced Soil Structure subjected to Rainfall”, Department of Geology, Northwest University (西北大學), China.
2. Julia Mazet-Sonilhac (2017), Topic: “Research on Application of Geosynthetics”, Department of Civil Engineering, French for School of High Studies in Engineering (HEI Lille), France.
3. Veronika Špedlová (2016), Topic: “Research on Drilled Shaft Design”, Department of Civil Engineering, Czech Technical University in Prague, Czech.
4. 姚峰(2011), Topic: “Research on Tunneling-induced Ground Settlement”, Department of Underground Engineering, College of Civil and Architectural Engineering, Beijing Jiaotong University (北京交通大學), China.

Service

SERVICE IN PROFESSIONAL REVIEW

Editorial Board Member

Editor-in-Chief, TGS Special Publication, Taiwan Geotechnical Society, 總編輯, 大地工程學會特刊, 2019-Present

Executive Editor and Editorial Board Committee, Journal of GeoEngineering, Taiwan Geotechnical Society, 執行編輯, 大地工程期刊, 2011-Present

Guest Editor

Special Column on “Introduction of New Geotechnical Book”, *Sino-Geotechnics.*, 新書介紹專欄編輯, 地工技術, 2018

Special Issue on “The Role and Impact of Geofluids in Geohazards: Editorial”, *Geofluids*, 2018

Book Proposal Review

Book title: “Geomembranes for Lining Canals”, published by Taylor & Francis. 2016

Book title: “Geosynthetic Reinforced Soil Walls”, published by John Wiley & Sons, 2019

Book Review

Book title: “The Slopeland Disaster Prevention Warning and Monitoring System” and “Management of Man-Made Slopes”, published by the Geotechnical Engineering Office, Taipei City Government, 『山坡地防災預警與監測系統』及『人工邊坡管理實務』, 臺北市政府大地工程處出版

Book title: “Highway Slopes Design Guidelines” and “Maintenance and Management Guidelines for Highway Slopes Geotechnical Facilities”, published by the Ministry of Transportation and Communications, 『104年公路邊坡工程設計規範』及『104年公路邊坡大地工程設施維護與管理規範』, 行政院交通部出版

Book title: “Manual of Adjacent Building Protections of Deep Excavation” and “Manual of Design and Monitoring of Deep Excavation” published by the Ministry of Interior, 『建築物深開挖鄰房保護設計手冊』及『建築物深開挖鄰房保護設計手冊』, 行政院內政部建築研究所出版

Journal Paper Review

- Acta Geotechnica
- Earthquake Engineering and Engineering Vibration
- Earthquakes and Structures: An International Journal
- Engineering Geology
- Frontier of Structural and Civil Engineering
- Geomechanics and Engineering, An International Journal
- Georisk
- Geosynthetics International, IGS
- Geotechnical Engineering Journal, SEAGS & AGSSEA
- Geotextiles and Geomembranes, IGS
- International Journal of Geomechanics, ASCE
- International Journal of Science and Technology, Scientia Iranica, Sharif University of Technology

- Journal of Architecture, Architectural Institute of Taiwan (臺灣建築學會建築學報)
- Journal of Chinese Institute of Engineers (中國工程師學刊)
- Journal of Chinese Institute of Civil and Hydraulic Engineering (中國土木水利工程學刊)
- Journal of Chinese Society of Mechanical Engineering (中國機械工程學刊)
- Journal of Earthquake Engineering
- Journal of Engineering and Technological Sciences, Institute of Technology Bandung
- Journal of Geotechnical and Geoenvironmental Engineering, ASCE
- Journal of GeoEngineering, TGS (中華民國大地工程學刊)
- Journal of Materials in Civil Engineering, ASCE
- Journal of Mountain Science
- Journal of Rock Mechanics and Geotechnical Engineering
- Journal of Testing and Evaluation, ASTM
- Makara Journal of Technology, University of Indonesian
- Marine Georesources & Geotechnology
- Nature Hazards
- Sino-Geotechnics (地工技術)
- Soils and Foundations, JGS
- Sustainable Civil Infrastructures
- Taiwan Water Conservancy (臺灣水利)
- Transportation, Infrastructure, Geotechnology

Conference Paper Review

- American Society of Civil Engineers (ASCE): GeoCongress, 2013; GeoFlorida, 2010
- China Association for Science and Technology: WTC 2017
- Ibero-Latin American Congress on Computation Methods in Engineering: CILAMCE 2016
- International Geosynthetics Society (IGS) (8th ICG, 2009; GeoArica, 2009)
- International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (16th ARC, 2019; 15th ARC, 2015; 17th ICSMGE, 2009)
- North American Geosynthetics Society (NAGS) (1st GeoAmericas, 2008)
- Taiwan Geotechnical Society (TGS) (中華民國大地工程學會) (17th GeoTaiwan 2017, 15th GeoTaiwan, 2013)
- Taiwan Theoretical and Applied Mechanics Society (STAM) (中華民國力學學會) (37th NCTAM-1st ICM, 2013)

SERVICE IN PROFESSIONAL SOCIETIES

Professional Affiliations

Member, International Geosynthetics Society (IGS)

Member, International Soil Mechanics and Geotechnical Engineering (ISSMGE)

Member, Geo-Institute, ASCE (ASCE G-I)

Member, Southeast Asian Geotechnical Society (SEAGS)

Member, Chinese Institute of Engineers-中國工程師學會

Member, Chinese Institute of Civil and Hydraulic Engineering-中國土木水利工程學會

Member, Taiwan Geotechnical Society (TGS)-中華大地工程學會

Member, Taiwan Geosynthetics Society (CGA)-中華地工材料協會

Member, Taiwan Bio-Environmental Industrial Engineering Sustainable Development Association-臺灣生物環境產業工程永續發展協會

Member, Phi Kappa Phi (ΦΚΦ) Academic Honor Society

International Society

Asian Technical Committee (ATC6), on Urban GeoEngineering, International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), 2013-Present

Technical Committee (TC-R), on Soil Reinforcement, International Geosynthetics Society, 2012-Present

Chinese National Standard

Technical Committee (TC1), on Civil Eng. and Architecture, National Bureau of Standards, Metrology & Inspection, 土木工程及建築國家標準技術委員, 經濟部標準檢驗局, 2017-2018

Chinese Institute of Civil Engineering

The 23rd International Affair Committee Members, Chinese Institute of Civil and Hydraulic Engineering, 中國土木水利工程學會第二十三屆國際事務委員會委員, 2018-2019

The 22nd Young Engineer Committee and International Affair Committee Members, Chinese Institute of Civil and Hydraulic Engineering, 中國土木水利工程學會第二十二屆青年工程師與國際事務委員會委員, 2016-2017

The 21st Young Engineer Committee Member, Chinese Institute of Civil and Hydraulic Engineering, 中國土木水利工程學會第二十一屆青年工程師委員會委員, 2014-2015

Working Group, for Sustainable Development – Green Construction Part of Civil Engineering Industry White Paper, Chinese Institute of Civil and Hydraulic Engineering, 土木產業白皮書 – 對國家建言, 永續發展綠營建部分工作小組, 中國土木水利工程學會, 2014

Taiwan Geotechnical Society

The 12th Council Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第十二屆理事, 2019-2021

The 12th Chair of Young Geotechnical Engineer Delegates Committee, Vice Chair of Journal Editorial Board, Academic, and International Affair Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第十二屆優秀青年大地工程師評選委員會主委、學刊委員會副主委、學術委員會、國際事務委員會委員, 2019-2021

The 11th Council Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第十一屆理事, 2017-2019

The 11th Chair of Young Geotechnical Engineer Delegates Committee, Vice Chair of Journal Editorial Board, Academic, and International Affair Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第十一屆優秀青年大地工程師評選委員會主委、學刊委員會副主委、學術委員會、國際事務委員會委員, 2017-2019

The 11th Editorial Committee on Building Foundation Design Specifications, Taiwan Geotechnical Society, 中華民國大地工程學會建築物基礎構造設計規範編修委員, 2017-2019

The 11th Editorial Committee on Slope Monitoring Guidelines, Taiwan Geotechnical Society, 中華民國大地工程學會山坡地監測準則編修委員, 2017-2019

The 10th Council Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第十屆理事, 2015-2017

The 10th Vice Chair of Journal Editorial Board, Vice Chair of Member Service Committee, Vice Chair of Young Geotechnical Engineer Delegates Committee, Academic, and Education Promotion Committee Members, Taiwan Geotechnical Society, 中華民國大地工程學會第十屆學刊委員會副主委、會員委員會副主委、優秀青年大地工程師評選委員會副主委、學術委員會與教育推廣委員會委員, 2015-2017

The 9th Council Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第九屆理事, 2013-2015

The 9th Journal Editorial Board, Academic, and Research and Development Committee Members, Taiwan Geotechnical Society, 中華民國大地工程學會第九屆學刊, 學術, 與研究發展委員會委員, 2013-2015

The 8th Journal Editorial Board Committee Member, Taiwan Geotechnical Society, 中華民國大地工程學會第八屆學刊委員會委員, 2011-2013

Taiwan Geosynthetics Society

The 10th Council Committee Member, Taiwan Geosynthetics Society, 中華地工材料協會第十屆理事, 2018-2020

The 10th Vice Chair of Academic Committee and Vice Chair of International Liaison Committee, Taiwan Geosynthetics Society, 中華地工材料協會第十屆學術委員會副主委與國際事務委員會副主委, 2018-2020

The 9th Council Committee Member, Taiwan Geosynthetics Society, 中華地工材料協會第九屆理事, 2016-2018

The 9th Chair of Member Service Committee, Academic and Financial Committee Members, Taiwan Geosynthetics Society, 中華地工材料協會第九屆會員委員會主任委員、與學術委員會、財務委員會委員, 2016-2018

The 8th Council Committee Member, Taiwan Geosynthetics Society, 中華地工材料協會第八屆理事, 2014-2016

The 8th Chair of Member Service Committee, Vice Chair of Academic Committee, International Liaison and Financial Committee Members, Taiwan Geosynthetics Society, 中華地工材料協會第八屆會員委員會主任委員、學術委員會副主委、國際事務委員會與財務委員會委員, 2014-2016

The 7th Council Committee Member, Taiwan Geosynthetics Society, 中華地工材料協會第七屆理事, 2012-2014

The 7th Academic, International Liaison, and Financial Committee Members, Taiwan Geosynthetics Society, 中華地工材料協會第七屆學術委員會、國際事務委員會與財務委員會委員, 2012-2014

The 6th Academic and Member Service Committee Members, Taiwan Geosynthetics Society, 中華地工材料協會第六屆學術委員與會員委員, 2010-2012

Sino-Geotechnics Research and Development Foundation

Sponsor Member, Sino-Geotechnics Research and Development Foundation, 財團法人地工技術研究發展基金會 贊助會員

SERVICE IN GOVERNMENTAL AGENCIES

Atomic Energy Council

Expert Consultant, Consultation for the Guidelines for Review of Re-Operation Time Limit of the Main Structure of Low-Level Radioactive Waste Facility, designated by the Radioactive Waste Management Bureau, Atomic Energy Council, 低放射性廢棄物設施主結構體再運轉年限審查導則, 專家學者, 原能會放射性物料管理局, September 2019

Council of Agriculture

Reviewer, Review for Design and Construction of Soil and Water Conservation Facility, designated by the Soil and Water Conservation Bureau, Council of Agriculture, 水土保持設施設計施工, 審查委員, 農委會水土保持局, February 2019

Ministry of Examination

Examination Committee Member, Civil Service Senior Examination – Level 2, designated by the Ministry of Examination, 公務人員高等考試二級, 命題與閱卷委員, 考選部, 2018

Examination Committee Member, Fundamental Examination for Professional Geotechnical Engineers, designated by the Ministry of Examination, 大地工程技師第一階段考試, 命題委員, 考選部, 2017

Ministry of Education

Reviewer, Review for Non-formal Education Programs Accreditation, designated by the Ministry of Education, 非正規課程認證計劃, 審查委員, 教育部, January 2017

Evaluator, Evaluation of Campus Disaster Prevention Project, designated by the Ministry of Education, 教育部防災校園建置計劃, 訪視學者, 教育部, June 2016

Evaluator, Evaluation of Project Execution of School Sport Facilities Construction and Renovation Project, designated by the Ministry of Education, 教育部體育署補助學校體育設施興建計劃, 訪視學者, 教育部, June 2014, 2017

Ministry of Science and Technology

Reviewer, Review for Outstanding Young Scholar Research Project, designated by the Ministry of Science and Technology, 優秀年輕學者研究計劃, 初審審查委員, 科技部, 2019

Reviewer, Review for Research Proposal of Rising Star Project, designated by the Ministry of Science and Technology, 科技部曜星研究計劃, 初審審查委員, 科技部, 2017

Reviewer, Review for Graduate Student Travel Grant to International Conference, designated by the Ministry of Science and Technology, 科技部研究生出席國際會議, 審查委員, 科技部, 2016

Reviewer, Review for Research Project Proposal, designated by the Ministry of Science and Technology, 科技部專題研究計劃, 初審審查委員, 科技部, 2012, 2014, 2018, 2019

Ministry of Transportation and Communication

Evaluator, Evaluation of Project Execution of Carbon Footprint Analysis of Applications of Geosynthetics to Infrastructures and Highway, designated by the Ministry of Transportation and Communications, 『碳足跡應用於快速公路地工合成材料之研究』,

審查委員, 交通部, September 2016

Reviewer, Review for Highway Slopes Design and Maintenance Guidelines, designated by the Ministry of Transportation and Communications, 『公路邊坡工程設計規範』及『公路邊坡大地工程設施維護與管理規範』, 複審委員, 交通部, June 2015

Working Group, Forensic Investigation on Catastrophic Landslide at Keelung-Sijhih Section (3K+100) of National Freeway No. 3, designated by the Ministry of Transportation and Communications, 國道三基隆汐止路段(3K+100)走山事故調查小組, 交通部, 2010

Ministry of Interior

Expert Consultant, Consultation for the Project of Disaster Prevention Training and Intelligent Monitoring Systems for Land Hill Communities, designated by the Ministry of Interior, 坡地社區減災營造與智慧防災系統整合研發, 專家學者, 內政部建築研究所, May 2019

Reviewer, Review for Manuals of Design, Monitoring and Adjacent Building Protections of Deep Excavation, designated by the Ministry of Interior, 『建築物基礎施工大地監測計畫手冊』及『建築物深開挖鄰房保護設計手冊』, 審查委員, 內政部建築研究所, October 2012

Evaluator, Evaluation of Project Execution of 2012 Disaster Prevention and Protection Project, designated by the Ministry of Interior, 101 年度災害防救深耕五年中程計畫期末評鑑小組-臺南市, 訪視學者, 內政部, November 2012

Evaluator, Evaluation of Project Execution of 2012 Continued Education and Training Program for Disaster Prevention and Protection, designated by the Ministry of Interior, 101 年度內政部補助強化防救災教育訓練專案-新竹縣教育訓練, 訪視專家, 內政部, May 2012

Evaluator, Evaluation of Project Execution of 2012 Disaster Prevention and Protection Drill Program, designated by the Ministry of Interior, 101 年度內政部補助莫拉克颱風災區專案-南投縣萬安 35 號暨防救災演習, 訪視學者, 內政部, April 2012

Evaluator, Evaluation of Project Execution of 2011 Disaster Prevention and Protection Project, designated by the Ministry of Interior, 100 年度災害防救深耕五年中程計畫期末評鑑小組-澎湖縣, 訪視學者, 內政部, October 2011

Evaluator, Evaluation of Project Execution of 2011 Disaster Prevention and Protection Drill Program, designated by the Ministry of Interior, 100 年度內政部補助莫拉克颱風災區專案-臺南市佳里區防救災演習, 訪視學者, 內政部, May 2011

Evaluator, Evaluation of Project Execution of 2011 Continued Education and Training Program for Disaster Prevention and Protection, designated by the Ministry of Interior, 100 年度內政部補助強化防救災教育訓練專案-新北市教育訓練, 訪視專家, 內政部, April 2011

City and County Government

Reviewer, Consultation for the Assessment of the Long Term Soil Water Conservation Project for Debris Flow Susceptible Area, designated by the Water Resources Department of Yilan County Government, 宜蘭縣土石流特定水土保持區長期水土保持計畫通盤檢討工作, 審查委員 宜蘭縣政府水利資源處, October 2018

Expert Consultant, Consultation for the Assessment of the Long Term Soil Water Conservation Project for Landslide Susceptible Area, designated by the Agriculture Department of New Taipei City Government, 新北市崩塌地特定水土保持區長期水土保持計畫通盤檢討工作, 專家學者, 新北市政府農業局, October 2017

Evaluator, Evaluation for the Project Execution of Monitoring and Inspection of Manmade Retaining Structures in Hill-Land in Taipei City, designated by the Public Work Department of Taipei City Government, 臺北市人工邊坡巡檢工作, 審查委員, 臺北市政府工務局大地工程處, April 2017

Expert Consultant, Consultation for the Project of Assessment of Soil Liquefaction Potentials in Taipei City, designated by the Public Work Department of Taipei City Government, 臺北市土壤液化潛勢區分析評估工作, 專家學者, 臺北市政府工務局, July 2016

Reviewer, Review of Books Published by Taipei City Government, designated by the Research, Development and Evaluation Commission of Taipei City Government, 臺北市出版專書獎勵作業, 審查委員, 臺北市政府研考會, July 2016

SERVICE IN PROFESSIONAL ASSOCIATION AND FOUNDATION

Taipei Professional Civil Engineers Association

Consultant, Forensic Investigation on the Causes of Inclined Building, designated by Taipei Professional Civil Engineers Association, 臺北市建築物傾斜原因調查與會勘, 專家學者, 臺北市土木技師公會, March 2011

Taiwan Construction Research Institute

Reviewer, Certificate Review for Rockfall Protection Systems, designated by the Taiwan Construction Research Institute, 落石防護系統認證, 審查委員, 財團法人臺灣營建研究院, June 2019

SERVICE IN ORGANIZATION OF TECHNICAL EVENTS

Conference

Organizing Committee, “7th Asian Regional Conference on Geosynthetics (IGS GeoAsia 2021)”, organized by Taiwan Geosynthetics Society, 第7th屆亞洲地工合成材研討會, 中華地工材料協會主辦, Taichung Taiwan, 2019

Conference Committee, “16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, (16 ARC)”, organized by Taiwan Geotechnical Society, 第16屆亞洲大地工程研討會, 中華民國大地工程學會主辦, Taipei Taiwan, 2019

Scientific Committee, “The 2nd International Symposium on Asia Urban GeoEngineering, (2nd ISAUG)”, organized by International Society for Soil Mechanics and Geotechnical Engineering ATC6, Changsha China, 2017

Technical Session Committee, “Comprehensive Design, Improvement and Reinforcement of Embankment”, World Transpiration Convention (WTC), organized by China Association for Science and Technology and China Highway and Transportation Society, Beijing China, 2017

Working Group, “17th Conference on Current Researches in Geotechnical Engineering in Taiwan, (17 GeoTaiwan)”, organized by Taiwan Geotechnical Society, 第17屆臺灣大地工程研究討論會, 中華民國大地工程學會主辦, Taipei Taiwan, 2017

Organizing Committee, “2015 Symposium on Reliability of Engineering Systems (2015SRES)”, organized by National Taiwan University of Science and Technology, 工程系統可靠度論壇, 國立臺灣科技大學主辦, Taipei Taiwan, 2015

Advisory Committee and Session Chair,, “2015 International Forum on Advanced Technologies (IFAT2015)”, organized by The University of Tokushima, Tokushima Japan, 2015

Organizing Committee, “Pacific-Rim Workshop on Innovations in Civil Infrastructure Engineering”, organized by National Taiwan University of Science and Technology, 泛太平洋土木基礎建設技術創新研討會, 國立臺灣科技大學主辦, Taipei Taiwan, 2013

Organizing Committee, “Chinese Institute of Civil and Hydraulic Engineering Annual Meeting”, organized by Chinese Institute of Civil and Hydraulic Engineering and National Taiwan University of Science and Technology, 中國土木水利工程學會年會, 中國土木水利工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2013

Working Group, “The 1st Taiwan-Kazakhstan Joint Workshop in Geotechnical Engineering”, organized by Taiwan Geotechnical Society and Tamkang University, 臺灣-哈薩克大地工程研討會, 中華民國大地工程學會與淡江大學主辦, Taipei Taiwan, 2013

Chair of Organizing Committee, “Disaster Prevention and Protection and Experience Sharing in Urban Areas Conference”, organized by Taipei City Fire Department and National Taiwan University of Science and Technology, 都會區災害防救應變與經驗交流研討會, 臺北市政府消防局與國立臺灣科技大學主辦, Taipei Taiwan, 2012

Chair of Organizing Committee, “Disaster Prevention and Protection to Extreme Weather Induced Disasters in Urban Areas Conference”, organized by Taipei City Fire Department and National Taiwan University of Science and Technology, 極端氣候下都會區遇颱洪、地震與坡地坍塌複合性災害防救研討會, 臺北市政府消防局與國立臺灣科技大學主辦, Taipei Taiwan, 2011

Organizing Committee, “International Workshop on New Technology in Construction Engineering”, organized by National Taiwan University of Science and Technology, 營建工程新技術國際研討會, 國立臺灣科技大學主辦, Taipei Taiwan, 2010

Organizing Committee, “International Symposium on Urban Geotechnical Engineering”, organized by National Taiwan University of Science and Technology, 國際都會土木工程研討會, 國立臺灣科技大學主辦, Taipei Taiwan, 2010

Session Chair

Session Chair, “Geosynthetics” and “Urban GeoEngineering”, *The 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 16ARC 2019*, Taipei, Taiwan, October 2019.

Session Chair, “Landslide”, *The 5th Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation, 5th GEDMAR*, Taipei, Taiwan, September 2017.

Session Chair, 17th Conference on Current Researches in Geotechnical Engineering in Taiwan, (17 GeoTaiwan)”, organized by Taiwan Geotechnical Society, 第17屆臺灣大地工程研究討論會, 中華民國大地工程學會主辦, Taipei Taiwan, 2017

Session Chair, “Impact of desiccation cracking and tensile strength on the stability and performance of slopes and embankments” for Geo-Congress 2013, Geo-Institute, American Society of Civil Engineers, San Diego, CA, 2013.

Session Chair, “Slope and Geosynthetics Session”, 2013 Taiwan-China Geotechnical Engineering Conference, organized by Sino-Geotechnics Research and Development Foundation and the Architectural Society of China-Pile foundation Division, 2013 海峽兩岸地工技術與岩土工程交流研討會, 財團法人地工技術研究發展基金會與中國建築

協會深基礎施工分會主辦, Taipei Taiwan, 2013.

Session Chair, “Rock Mechanics and Tunnel Engineering Session”, The 15th Conference of Taiwan Geotechnical Engineering, 2013, organized by Taiwan Geotechnical Society and National Yunlin University of Science and Technology, 第 15 屆臺灣大地工程研討會, 中華民國大地工程學會與國立雲林科技大學主辦, Yunlin Taiwan, 2013.

Session Chair, “Assessment of Disaster Potentials Session”, Disaster Prevention and Reaction to Global Climate Change Conference, organized by Emergency Operations Center, Taipei City Government and National Taiwan University of Science and Technology, 防救災組織強化、經驗分享與氣候變遷時代的新思維研討會, 臺北市政府災害防救中心與國立臺灣科技大學主辦, Taipei Taiwan, 2010

Session Chair, “The Practical Application of Geosynthetics Session”, 2009 Civil and Ecological Engineering Conference, organized by I-Shou University, 2009 土木與生態工程研討會, 義守大學主辦, Kaohsiung Taiwan, 2010

Lecture and Workshop

Organizing Committee, “International Scholar Lecture by Dr. William Powrie on Recent Developments in the Design and Understanding the Performance of Embedded Retaining Walls, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演講, Dr. William Powrie 主講, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2016

Organizing Committee, “Workshop on application of Finite Element Modeling in Deep Excavation and Slope Engineering”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 有限元素法於大地工程應用技術研討會-深開挖與邊坡工程, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2016

Organizing Committee, “International Scholar Lecture by Dr. John McCartney on Design of Energy Piles considering Soil-Structure Interaction, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演講, Dr. John McCartney 主講, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2015

Organizing Committee, “The 54th Rankine Lecture by Dr. Guy Houlsby on Interactions in Offshore Foundation Design, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 第 54 Rankine 演講, Dr. Guy Houlsby 主講, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2014

Organizing Committee, “Finite Element Workshop on Geotechnical Engineering”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 有限元素法在大地工程之應用課程, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2013

Organizing Committee, “International Scholar Lecture by Dr. James Mitchell’s Lecture on GeoTech Tools - an Interactive Web-Based Information and Guidance System for Ground Improvement Technologies”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演講, Dr. James Mitchell 主講, 中華民國大地工程學會與國立臺灣科技大學主辦, Taipei Taiwan, 2013

Organizing Committee, “The 52th Rankine Lecture by Dr. Malcolm Bolton on Performance-Based Design in Geotechnical Engineering”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 第 52

Rankine 演講，Dr. Malcolm Bolton 主講，中華民國大地工程學會與國立臺灣科技大學主辦，Taipei Taiwan, 2012

Organizing Committee, “International Scholar Lecture by Dr. Lu Ning’s Lecture on Unsaturated Soil”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演講，盧寧教授主講，中華民國大地工程學會與國立臺灣科技大學主辦，Taipei Taiwan, 2012

Organizing Committee, “Workshop on Advanced Geotechnical Finite Element Modeling in Analyses of Underground Construction”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 高階有限元素法在地下工程分析上之實務應用研討會，中華民國大地工程學會與國立臺灣科技大學主辦，Taipei Taiwan, 2012

Organizing Committee, “International Scholar Lecture by Dr. Askar Zhussupbekov’s Lecture on Foundations on Historical Buildings in Saint-Petersburg (Russia) and Turkestan (Kazakhstan)”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演，Dr. Askar Zhussupbekov 主講，中華民國大地工程學會與國立臺灣科技大學主辦，Taipei Taiwan, 2012

Organizing Committee, “International Scholar Lecture by Dr. David Muir-Wood on Magic of the Sand”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程國際學者演講，Dr. David Muir-Wood 主講，中華民國大地工程學會與國立臺灣科技大學主辦，Taiwan, 2010

Student Activity

Chair of Organizing Committee, “Geotechnical Professional Development Workshop”, organized by Taiwan Geotechnical Society and National Taiwan University of Science and Technology, 大地工程職涯規劃座談會，中華民國大地工程學會與國立臺灣科技大學主辦，Taipei Taiwan, 2014

Judge, “Geo-Challenge, Student Poster Competition”, organized by Geo-Institute, American Society of Civil Engineers, Oakland, CA, 2012

Judge, “7th ASCE –TWIG Student English Presentation Contest of Civil Engineering Case Studies”, organized by Taiwan International Group, American Society of Civil Engineers, 第七屆土木工程案例英語發表競賽，美國土木工程學會台灣分會主辦，Tainan Taiwan, 2012

SERVICE TO ACADEMIC INSTITUTES

Project Reviewer

國立臺灣科技大學暨日本德島大學學術合作專題研究計畫審查委員

Ph.D. Degree External Committee

國立臺灣大學土木系

國立臺灣科技大學營建系

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Master Degree External Committee

國立臺灣大學土木系
國立臺灣大學生工系
國立臺灣科技大學營建工程系
國立成功大學土木系
國立暨南國際大學土木系
國立臺北科技大學土木系
國立高雄應用科技大學土木系
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Services to National Taiwan University

Service to University and College

校務及院務會議教師全院互選代表選舉工作小組
工學院地震工程研究中心捷運影響評估審查委員
工學院地震工程研究中心特殊結構審查委員

Service to Department

系務行政

土木系副系主任

系務襄助

土木系中華工程教育認證(IEET)會談與試驗室參訪導覽老師
參與九州大學學術交流活動
參與印尼土木結構工程師交流活動
參與至越南河內土木大學(NUCE, Hanoi, Vietnam)招生與研究交流活動

系招生

土木系碩博士班甄試評審委員
土木系碩士班命題、閱卷委員
土木系大學部國際學生面試委員

系委員會

土木系招生委員
土木系環境安全衛生委員
土木系教學與課程委員
土木系博士班研究生指導委員
土木系博士班資格考委員

學生事務

土木系大地組研究生學術寫作營
台日韓三方(台大、首爾大學、東京大學)土木系學生學術交流活動(Trilateral Student Activity, TSA) 指導教授
TSA 土木系學生學術交流活動大地組指導教授

土木系大學部導師
土木系系學會學生留學座談會經驗分享
土木系系學生國際職場移動力座談會

Services to National Taiwan University of Science and Technology

Service to University and College

工程學院新進教師經驗分享
學生校外實習委員工程學院代表
工程學院工程精英班 Open house Program 營建系簡報老師
工程不分系學士班甄選委員
工學院招生稽核委員
工學院海外招生籌備老師
高中職招生宣導老師
精誠榮譽學院全校不分系學士班丁班導師
精誠榮譽學院科技導論課程上課老師
工程學院傑出及優秀青年甄選委員
精誠榮譽學院全校不分系學士班丁班導師
浙江高等職業技術學院(校)師資培訓專業課程授課老師
技術校院四年制與專科學校二年制統一入學測驗監試委員
技術校院二年制統一入學測驗監試委員
國立臺灣科技大學碩士班入學測驗監試委員
學生社團『對話與多元文化交流社』指導老師
學生社團『中國工程師學會-國立臺灣科技大學學生分會』指導老師

Services to Department

系務襄助

營建系特別助理
營建系大地組實驗室負責人
營建系工程中華工程教育認證(IEET)系籌備工作成員與試驗室參訪導覽老師
營建系科技大學評鑑系籌備工作成員

系招生

營建系碩博士班甄試評審委員
營建系碩士班命題、閱卷委員
營建系研究所外籍生甄審委員
營建系資訊組甄試評審委員
營建系大學部四年制(高中生與運動績優)申請入學甄審委員
營建系轉學生申請入學甄審委員
營建系在職碩士班甄審委員
營建系大陸地區研究生與交換學生甄審委員

系委員會

營建系學生校外實習委員

營建系國際事務委員
營建系圖書與出版委員
營建系學生事務委員
營建系教學委員
營建系學術活動委員
營建系研究發展委員
營建系博士班資格考委員

學生事務

營建系學生事務會議代表
營建系大學部導師
營建系學生校外實習輔導教師
營建系大學部優良實務專題甄審委員
營建系自辦或外界捐贈獎學金評選委員
營建系傑出及優秀青年甄選評選老師
營建系學生中華顧問工程力學精英研習營與橋樑設計美學研習營評選委員
營建系清寒獎學金評選老師
臺科大與日本大阪工業大學學生交流與橋樑競賽主辦老師
營建系『營建工程概論』木橋競賽指導與評審老師
營建系大學生提升英語能力競賽主辦老師
營建系『聽建好聲營』暨英語歌唱競賽主辦老師
營建系國際學生參訪臺灣世曦工程公司領隊老師
北京交通大學國際工程英語夏令營-營建系學生帶隊老師
營建系國際學生參訪盟鑫工業公司領隊老師
營建系國際學生參訪臺灣世曦工程公司領隊老師
營建系學生校外參訪潤泰建設公司帶隊老師
營建系國際學生入學手冊製作指導老師
營建系本地新生入學手冊製作指導老師