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Geotechnical Engineering Program
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ACADEMIC APPOINTMENT

Professor

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

Associate Vice President for International Affairs

Office of International Affairs, National Taiwan University (NTU), 2023~Present

Associate Dean

International College, National Taiwan University (NTU), 2023~Present

Director

Disaster Risk Reduction and Resilience Program, International College, National Taiwan University (NTU), 2024~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 induced landslide, Slope displacement threshold for early warning, Design of Earth retaining structures, Unsaturated soil mechanics

Application of Geosynthetics

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

Geotechnics for Disaster Prevention and Sustainability

Soil seepage and erosion, Disaster mitigation and protection, Energy geostructures

Geotechnical Engineering Modeling

Computational soil mechanics, Coupled hydro-mechanical analysis, Large soil deformation analysis, Material Point Method, Finite element modeling, Limit equilibrium analysis

PROFESSIONAL REGISTRATION

Engineer in Training, Texas Registration # 39138

VISITING SCHOLAR

Visiting Scholar, Dept. of Civil and Environmental Engineering, University of Illinois Urbana-Champaign, USA, Research Supervisor: Prof. Tugce Baser, Focus: Renewable Energy Resources and Sustainable Geo-Energy Applications, 2023

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

Visiting Graduate Researcher, 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

PROFESSIONAL EXPERIENCE

Contract Research Fellow, Hydrotech Research Institute, National Taiwan University, 2024

Contract Research Fellow, Center for Weather Climate and Disaster Research, National Taiwan University, 2018

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

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

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

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

Director, Disaster Risk Reduction and Resilience Program, International College, National Taiwan University, 2024~Present

Associate Vice President for International Affairs, National Taiwan University, 2023-present

Associate Dean, International College, National Taiwan University, 2023~Present
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

Best Paper Runner-up Award, *Geotextiles and Geomembranes*, 第二最佳論文獎, Geotextiles and Geomembranes, 2024
Best Paper Award, *Transportation Infrastructures Geotechnology*, 最佳論文獎, 運輸 Transportation Infrastructures Geotechnology 國際期刊, 2021
Best Paper Runner-up Award, *Geosynthetics International*, 第二最佳論文獎, Geosynthetics International 國際期刊, 2020
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
The Young IGS Member Achievement Award, International Geosynthetics Society, 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, 科技部 2030 跨世代年輕學者方案(優秀年輕學者)計畫, 科技部, 2021-2024
Young Researcher Achievement Award, College of Engineering, National Taiwan University, 學術勵進獎, 國立臺灣大學工學院, 2020
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, 2018-2021
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, 2013-2016

Paper Awards

Best Paper Award, *Journal of Chinese Soil and Water Conservation*, 年度論文獎, 中華水土保持學報, 2023

Best Paper Award, 33rd Conference on Military Engineering, 優良論文獎, 第三十三屆國軍軍事工程研討會, 2021

Best Paper Award, Chinese Institute of Engineers, 工程論文獎, 中國工程師學會, 2021

Best Paper Award, Journal of GeoEngineering, 大地工程傑出論文獎, 大地工程期刊, 2021

Best Paper Award, Sino-Geotechnics, 109 年度優良論文獎, 地工技術, 2021

Best Paper Award, 18th Taiwan Geotechnical Engineering Conference, 優良論文獎, 第十八屆大地工程研討會, 2020

Best Paper Award, 29th 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, 最佳論文獎, 災害防救科技與管理學刊, 2015

Excellent Paper Award, Journal of GeoEngineering, 大地工程優良論文獎, 大地工程期刊, 2014

Best Paper Award, Journal of Construction Management, 營建管理論文獎, 營建管理季刊, 2012

Best Paper Award, Journal of GeoEngineering, 大地工程傑出論文獎, 大地工程期刊, 2012

Best Paper Award, 14th Taiwan Geotechnical Engineering Conference, 優良論文獎, 第十四屆大地工程研討會, 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

Dissertation Supervisor Award, College of Engineering, National Taiwan University, 論文指導獎, 國立臺灣大學工學院, 2024, 2022

Outstanding Teaching Award, National Taiwan University, 教學傑出教師獎, 國立臺灣大學, 2022

Excellent Teaching Award, National Taiwan University, 教學優良教師獎, 國立臺灣大學, 2021, 2019

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 of Science and Technology, 教學優良教師獎, 國立臺灣科技大學, 2016, 2012

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

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 Delegates

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
Book	2	0
Journal paper	73	2
International Conference	64	0
Domestic Conference	35	0
Technical Reports	20	0
Newsletter	19	0

215 Total

- Ⓢ indicates students or research assistants under my supervision
✉ indicates I am the corresponding author

Book Publications

1. 歐章煜、楊國鑫、鄧福宸、邱俊翔、盧之偉、李安歡、卿建業、廖瑞堂 (2024) “基礎工程原理”，高立圖書，第 1 版，ISBN: 9789863784272.
2. Ou, C-Y., Yang, K-H, Teng, F-C, Chiou, J-S, Lu, C-W, Li, A-J, Ching, J., and Liao, R-T. (2023) “*Fundamentals of Foundation Engineering*”, CRC Group, Taylor and Francis Group, London, 1st edition, ISBN: 9781032394978.

Journal Publications

1. Peng, Y.P.[Ⓢ], Yang, K-H[✉], Lee, W.L., Rus, T.Y., Cheng, S-H., Wang, J-Y., and Kuo-Chihping “Three-Dimensional Material Point Analyses of Guanghua Landslide influenced by Geomorphological Constraints”, *Landslides*, second review since March.
2. Pratama, I.T.[Ⓢ], Jello, J., Mao, X-B[Ⓢ], Yang, K-H[✉], Tsai, J-P, Baser, T., and Kuo, C-P. (2025) “Investigation of The Thermal Response of An Energy Raft Foundation in Taipei”, *Tunnelling and Underground Space Technology*.
3. Chiang, Jung[Ⓢ], Wu, C-W[Ⓢ], Yang, K-H[✉], Chung Y-C, and Viswanadham, B.V.S. (2025) “Performance of Various Geosynthetic-Reinforced Embankment and Foundation Systems subjected to Reverse Fault Movement”, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 151(4), 04025018.
4. Cheng, S-H, Yang, K-H, Lin, S-Y, Liao, C-K, and Liao, H-J. (2024) “A Modified Lift-Off Test for Restressing Anchors of A Rehabilitated Landslide Slope”, *Landslides*, 21, 1129-1148.
5. Chiang, J.[Ⓢ], Michel, E.[Ⓢ], Yang, K-H, and Zornberg, J.G. (2023) “Mitigation of Reverse Faulting in Foundation Soils using Geosynthetic-Encased Granular Columns”, *Transportation Geotechnics*, 42, 101067
6. Teng, F-C, Hsiung, B.C., Agung, M.D., Anthony, A., Litanes, R.[Ⓢ], and Yang, K-H (2023) “Simulations on Time-Dependent Behavior based on Wall Deflection of Deep Excavations in Jakarta”, *Arabian Journal of Geoscience*, 16, 482.

7. 曾世傑[Ⓢ]、楊國鑫[Ⓢ]、蔡營寬[Ⓢ]、溫茂亨 (2023) “2022 年俄烏城鎮戰戰場經營之研究-兼論我國地下掩體衰減層抗爆分析與應用”，憲兵半年刊，第 96 期，73-94。
8. 楊國鑫[Ⓢ]、彭逸蘋[Ⓢ]、郭治平[Ⓢ]、李威霖[Ⓢ]、汪俊彥[Ⓢ]、陳昭維[Ⓢ]、朱世文[Ⓢ]、白朝金 (2023) “以物質點法探討光華崩塌地滑動面深度與地下水之影響”，中華水土保持學報，54(3)，185-196。*2023 Best Paper Award.
9. Chou, N-S, Yang, K-H[Ⓢ], Wu, H-M[Ⓢ], Lin, J-J[Ⓢ], Ho, S-J, and Liu, C-N. (2023) “Case Study of a Reinforced Soil Slope with Marginal Backfill as a Detention Pond in Flood Control”, *Journal of GeoEngineering*, 18(1), 33-47.
10. Yang, K-H[Ⓢ], Wu, H-M[Ⓢ], and Tseng, T-L[Ⓢ], Yoo, CK (2023) “Model Tests of Geosynthetic-Reinforced Soil Walls with Marginal Backfill subjected to Rainfall”, *Geotextiles and Geomembranes*, 51(2), 342-359. *2023 Best Paper Runner-up Award.
11. Zheng, S-J[Ⓢ], Yang, K-H[Ⓢ], Tsai, Y-K, and Teng, F-C. (2023) “Investigation of the Blast-Resistance Performance of Geotextile-Reinforced Soil”, *Geosynthetics International*, 30(6), 584-601.
12. 鄭世豪[Ⓢ]、廖洪鈞[Ⓢ]、王瑞祺[Ⓢ]、林士淵[Ⓢ]、謝旻希[Ⓢ]、楊國鑫[Ⓢ] (2022) “臺北市貓空纜車 T16 塔柱下邊坡之長期觀測與維運管理作為”，地工技術，第 173 期。
13. 曾世傑[Ⓢ]、楊國鑫[Ⓢ]、蔡營寬[Ⓢ]、林詳恩 (2022) “後備部隊戰力防護之研究-以建構快速布放式抗爆震掩體為例”，後備軍事半年刊，第 172 期，66-95。
14. 曾世傑[Ⓢ]、楊國鑫[Ⓢ]、蔡營寬[Ⓢ]、玉璽 (2022) “1945 年硫磺島戰役日軍守備之研究-兼論不同土質條件之衰減層抗爆震效能”，陸軍工兵半年刊，第 160 期，1-28。
15. 蔣榮[Ⓢ]、楊國鑫[Ⓢ]、吳俊緯[Ⓢ]、洪勇善[Ⓢ]、阮仲如 (2022) “以柔性加勁基礎減緩逆斷層錯動引致之地表變形”，地工技術，第 172 期，73-84。
16. Cheng, S-H, Chen, S-S., and Yang, K-H (2022) “Self-Inspection System for Ground Anchor Monitoring on Long-Term Load Change”, *Transportation Geotechnics*, 36, 100825.
17. Nguyen, T.S.[Ⓢ], Yang, K-H[Ⓢ], Wu, Y-K[Ⓢ], Teng, F-C, Chao, V.W, and Lee, W.L (2022). “Post-Failure Process and Kinematic Behavior of Two Landslides: Case Study and Material Point Analyses”, *Computers and Geotechnics*, 148, 104797.
18. Nguyen, M.D.[Ⓢ], and Yang, K-H. (2022) “California Bearing Ratio Test on Reinforced Clay under As-compacted and Soaked Conditions”, *Journal of GeoEngineering*, 17(2), 73-87.
19. Li, A-J, Mburu, J.W., Chen, C-W, and Yang, K-H. (2022) “Investigation of Silty Soil Slopes under Unsaturated Conditions based on Strength Reduction Finite Element and Limit Analysis”, *KSCE Journal of Civil Engineering*, 26(3), 1095-1110.
20. 曾世傑[Ⓢ]、楊國鑫[Ⓢ]、蔡營寬 (2021) “地下結構物抗暴震研究-以加勁土衰減爆震波壓力之數值分析”，陸軍工兵半年刊，第 159 期，1-22。
21. Chiang, J[Ⓢ], Yang, K-H[Ⓢ], Chan, Y-S[Ⓢ], and Yuan C-L. (2021) “Finite Element Analysis and Design Method of Geosynthetic-Reinforced Soil Foundation subjected to Normal Fault Movement”, *Computers and Geotechnics*, 139, 104412.
22. Lin, Y-T, Chen, Y-K, Yang, K-H, Chen, C-S, and Han J-Y. (2021) “Integrating InSAR Observables and Multiple Geological Factors for Landslide Susceptibility Assessment”, *Applied Sciences*, 11, 7289.
23. 林彥廷[Ⓢ]、顏筱穎[Ⓢ]、張乃軒[Ⓢ]、林宏明[Ⓢ]、韓仁毓[Ⓢ]、楊國鑫[Ⓢ]、陳俊杉[Ⓢ]、鄭宏達[Ⓢ]、徐若堯 (2021) “結合時空因子與 InSAR 觀測資料之地表變位預測分析”，中國土木水利工程學刊，第 33 卷第 2 期，95-106。
24. Yang, K-H[Ⓢ], Nguyen, T.S.[Ⓢ], Rahardjo H., and Lin, D-G. (2021) “Deformation Characteristics of Unstable Shallow Slopes Triggered by Rainfall Infiltration”, *Bulletin of Engineering Geology and the Environment*. 80(1), 317-344.
25. Nguyen, T.S.[Ⓢ], Yang, K-H[Ⓢ], Ho, C-C, and Huang, F-C. (2021) “Post-Failure

- Characterization of Shallow Landslides using Material Point Method”, *Geofluids*, 2021, 8860517.
26. 楊國鑫、吳昱葵、鄧福宸、陳昭維、陳仁達 (2020), “物質點法分析邊坡崩塌過程與運動機制：以貓空邊坡為例”, 土工技術, 第 166 期, 79-92。*2020 Best Paper Award.
 27. Muntohar, A.S., Fata, N., Jotisankasa, A., and Yang, K-H. (2020) “Suction Monitoring and Stability of Volcanic Residual Soil slope during Rainfall”, *Civil Engineering Dimension*, 22(2), 68-74.
 28. Chou, N.S., Yang, K-H[✉], Barrett, B., Wu, H-M, and Liu, T-Y (2020) “Sustainable Characteristics of Reinforced Soil Structures – From Ancient Great Walls to Modern GRS Walls”, *Transportation Infrastructures Geotechnology*, 7(3), 445-460. *2020 Best Paper Award
 29. Yang, K-H[✉], Chiang, J[✉], Lai, Z-W.[✉], Han, J., and Lin, M-L. (2020) “Performance of Geosynthetic- Reinforced Soil Foundations across a Normal Fault”, *Geotextiles and Geomembranes*. 48(3), 357-373.
 30. Nguyen, M.D.[✉], Yang, K-H, and Yalaw, W. M.[✉] (2020) “Compaction Behavior of Nonwoven Geotextile-Reinforced Clay”, *Geosynthetics International*. 27(1), 16-33.
 31. Hung, W-Y, Yang, K-H[✉], Nguyen, T.S.[✉], and Pham, T.N.P.[✉] (2020) “Performance of Geosynthetic-Reinforced Soil Walls at Failure”, *Journal of GeoEngineering*. 15(1), 13-29. *2020 Best Paper Award.
 32. 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.
 33. 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*. 26(5), 451-473.
 34. 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. *2019 Best Paper Runner-up Award.
 35. Hung, C., Pang, X., Lin, G-W, Yang, K-H, and Uzuoka R. (2019) “The Role and Impact of Geofluids in Geohazards”, *Geofluids*, 7217489.
 36. 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.
 37. 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.
 38. 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.
 39. 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.
 40. 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.
 41. 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.
 42. 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.
43. 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
 44. 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.
 45. 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.
 46. Yang, K-H[Ⓢ], Nguyen, M.D[Ⓢ], Yalew, 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.
 47. 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.
 48. 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.
 49. Yang, K-H[Ⓢ], Yalew, 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.
 50. 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.
 51. 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.
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Domestic Conference Publications

1. 吳俊緯[☉], 楊國鑫, 何嘉浚, 林佳靜[☉] (2024) "以加勁擋土牆作為河川護岸之應用與設計", *Proceedings of 2024 Soil and Water Conservation Conference*, 水土保持研討會, November 2024.
2. 吳俊緯, 鐘源俊, 楊國鑫 (2024) "不同加勁措施對於加勁路堤與基礎系統作為跨逆斷層減災工法之研究", *Proceedings of the 20th Conference of Taiwan Geotechnical Engineering, GeoTaiwan 2024*, 第 20 屆臺灣大地工程研討會, Tainan, Taiwan, August 2024. *Best Student Paper Award from this conference.
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15. Yang, K-H and Hsiung B. (2015), “Report of International Distinguished Lectures in Taiwan and the Visit of Dr. Guy Houlsby”, *SEAGS-AGSSEA Newsletter*, February 2015
16. 倪勝火、楊國鑫、熊彬成 (2015) 「Dr. Sotoke 教授訪台與 Terzaghi Lecture 報導」，中華民國大地工程學會會訊，第十八卷第二期，中華民國 104 年 4 月。
17. 楊國鑫、熊彬成、張德文 (2015) 「Dr. Houlsby 教授訪台與 Rankine Lecture 報導」，中華民國大地工程學會會訊，第十八卷第二期，中華民國 104 年 4 月。
18. 楊國鑫 (2014) 「大地工程職涯規劃座談會報導」，中華民國大地工程學會會訊，第十八卷第一期，中華民國 103 年 7 月。
19. 楊國鑫 (2014) 「傑出好教師報導」，臺科校園誌，第七期，*Taiwan Tech Magazine*, 07, 中華民國 103 年 6 月。

TECHNICAL PRESENTATIONS

Keynote Lecture

1. Keynote Lecture, “Post-Failure Process and Kinematic Behavior of Landslides: Case Study and Material Point Analyses”, Annual National Conference, Indonesian Society for Geotechnical Engineering, Jakarta, Indonesia, November 2022
2. 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

3. 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
4. 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

Webinar and Seminar

1. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *UT Geo-Institute Student Chapter Seminar, University of Texas at Austin*, November 2023.
2. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *Seminar, Department of Geology and Geological Engineering, University of North Dakota*, Grand Forks, April 2023.
3. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *Geotechnical Seminar, Department of Civil and Environmental Engineering, University of Illinois Urbana-Champaign*, April 2023.
4. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *Chulalongkorn University and University of Bengkulu Joint Seminar under World Class Professor 2021*, October 2021.
5. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *The Geotechnical Engineering Technical Division of the Institution of Engineers Malaysia Webinar, GETD-IEM Webinar*, September 2021.
6. Invited Presentation, “Failure Investigation of a Geosynthetic-Reinforced Soil Slope subjected to Rainfall”, *The International Geosynthetics Society - Indonesian Chapter, Ina-IGS Webinar*, July 2021.
7. Invited Presentation, “Graduate Program and Internationalization efforts in NTUCE”, *Higher Degree Education for Civil and Environmental Engineering, The 1st InfraSPHERE ICE Conference, BrainKorea 21 Education and Research Program*, July 2021.
8. Invited Presentation, “Application of Geosynthetic-Reinforced Soil Foundations as A Mitigation Measure against Surface Faulting Hazards”, *The 1st Chinese Taipei Geotechnical Society Webinar, CTGS Webinar*, March 2021.
9. Invited Presentation, “Geosynthetic-Reinforced Soil Structures for Engineering Applications, Natural Disaster Mitigation and Environmental Protection”, *Seminar, Department of Civil and Environmental, University of Tokushima*, Tokushima, Japan, November 2014.

Workshops and Short Courses

1. Course title “Post-Failure Process and Kinematic Behavior of Landslides: Case Study and Analyses”, International Training Courses on Geo-Disaster Risk Reduction and Resilience, held by Department of International Cooperation and Science Education, NSTC, 坡地災害國際訓練營, 國科會科教發展與國際合作司主辦, Taipei Taiwan, December 2023
2. Lecture title, “EMI’s Diverse Teaching and Learning for Engineering Students”, Exploring Adaptive Education: Enabling Personalized EMI Instruction, organized by Center for Bilingual Education, NTU, 探索適性教學教育：如何實現EMI個性化學習, 臺大雙語教育中心主辦, Taipei Taiwan, November, 2023
3. Course title, “Sharing of Academic Writing Experience”, Academic Writing Summer Program in Geotechnical Engineering, organized by Taiwan Geotechnical Society, 大地工

- 程英文論文寫作營，中華民國大地工程學會主辦，Taipei Taiwan, August, 2022-2023
4. Lecture title, “Post-Failure Process and Kinematic Behavior of Landslides”, 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, August, 2022
 5. Course title, “Advance Topics on Geosynthetics-Reinforced Walls”, IGS Geosynthetics Education Training Program , hosted by IGS Education Committee and Chinese Taipei Chapter, 國際地工合成材料學會教育推廣研習營，國際地工合成材料學會教育委員會與中華台北分會主辦，Pingtung Taiwan, November 2020.
 6. Lecture title “Design and Failure Investigation of Geosynthetic-Reinforced Soil Structures subjected to Rainfall ”, organized by Gold-Joint Industry, 盟鑫工業公司教育訓練，盟鑫工業公司主辦，Taichung Taiwan, October 2020
 7. Lecture title “Design and Failure Investigation of Geosynthetic-Reinforced Soil Structures subjected to Rainfall ”, held by Hualien Branch, Soil and Water Conservation Bureau, Council of Agriculture, 大規模崩塌教育訓練，花蓮水土保持局主辦，Hualien Taiwan, November 2019
 8. Course title “Application of Geosynthetics to Mitigation, and Remediation of Landslide Disaster”, International Training Courses on Landslide Disaster Reduction, held by Department of International Cooperation and Science Education, MOST, 坡地災害國際訓練營，科技部科教發展與國際合作司主辦，Taipei Taiwan, November 2019
 9. Lecture title “Introduction of Geosynthetics: Application to Construction, Disaster Mitigation, and, Natural Protection”, Special Lecture, held by Soil and Water Conservation Bureau, Council of Agriculture, 水保局主管會報專題演講，水土保持局主辦，Nantou Taiwan, September 2019
 10. Course title “Introduction and Application of Geosynthetics”, Military engineering materials: Innovation and Practical Application, held by Chung Cheng Institute of Technology, National Defense University, 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
 11. Course title “Disaster Prevention Specialist and Disaster Prevention System in Taiwan”, Disaster Prevention Specialist Program, held by Taipei City Fire Department, Taipei City Government, 防災士培訓課程，臺北市政府消防局主辦，Taipei Taiwan, 2019
 12. Course title “Recent Disaster Experience and Characteristics in Taiwan”, Disaster Prevention Specialist Program, held by Taipei City Fire Department, Taipei City Government, 防災士培訓課程，臺北市政府消防局主辦，Taipei Taiwan, 2019
 13. 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, 臺北市政府消防局主辦，Taipei Taiwan, 2019
 14. 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
 15. Lecture title, “Geosynthetic-Reinforced Soil Structures: Application for Natural Disaster Mitigation and Failure Case Study”, organized by Land Engineering Consultants , 青山工程顧問公司主辦，Taipei Taiwan, June 11, 2018
 16. Lecture title, “Standard Test Method for Geosynthetics”, organized by Water Resources Agency, Ministry of Economic Affairs , 地工合成材試驗規範，經濟部水利署主辦，Taichung Taiwan, April 24, 2018
 17. Lecture 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
 18. Lecture 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, 2016

19. Lecture 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, 2016
20. Lecture 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
21. 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, 2015
22. 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
23. 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
24. 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
25. 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
26. 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
27. 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
28. 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
29. 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
30. 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
31. 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

32. 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
33. 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
34. 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
35. 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
36. 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
37. 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

National Science and Technology Council

- PI, “Development and Integration of Multiple Investigation, Analyses, and Improvement Methods for Shallow Landslide Disasters (III)”, funded by National Science and Technology Council, 淺層崩塌災害多元化調查、分析與整治工法之發展與整合研究, 國科會整合型專題研究計畫, 總主持人, NSTC113-2625-M-002-010, NT\$1,556,000, August 2024-July 2025.
- PI, “Geosynthetic-Reinforced Embankment and Foundation Systems to Mitigate Disasters induced by Different Fault Movement Types”, funded by National Science and Technology Council, 加勁路堤與基礎系統減緩不同斷層錯動引致災害之研究, 國科會專題研究計畫(三年期), 主持人, NSTC113-2221-E-002-085-MY3, NT\$3,250,000, August 2024-July 2027.
- PI, “Development and Integration of Multiple Investigation, Analyses, and Improvement Methods for Shallow Landslide Disasters (II)”, funded by National Science and Technology Council, 淺層崩塌災害多元化調查、分析與整治工法之發展與整合研究, 國科會整合型專題研究計畫, 總主持人, NSTC112-2625-M-002-006, NT\$1,344,000, August 2023-July 2024.
- PI, “Development and Integration of Multiple Investigation, Analyses, and Improvement Methods for Shallow Landslide Disasters (I)”, funded by Ministry of Science and Technology, 淺層崩塌災害多元化調查、分析與整治工法之發展與整合研究, 科技部整合型專題研究計畫, 總主持人, MOST111-2625-M-002-013-, NT\$1,564,000, August 2022-July 2023.
- PI, “Performance and Design Methods of Geosynthetic-Reinforced Soil Structures subjected to Reverse Fault: A Faulting Hazard Mitigation Measure”, funded by Ministry of Science and Technology, 加勁構造物在逆斷層作用下之力學行為與設計方法: 抗斷層錯動減災工法, 科技部 2030 跨世代年輕學者方案(優秀年輕學者)計畫(三年期), 主持人, MOST110-2628-E-002-003-, NT\$3,990,418, August 2021-July 2024. *Outstanding

Young Scholar Research Project

- 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, “Development of Design Method for Geosynthetic-Reinforced Soil Bridge Abutment”, funded by Sinotech Engineering Consultants, LTD. 橋台加勁擋土結構物設計方法之探討, 中興工程顧問委託研究案, 主持人, NT\$800,000, April 2023-March 2024.
- PI, “Study on the Application of Multiple Retaining Walls and Facilities on Hill Land Area”, funded by Soil and Water Conservation Bureau, Council of Agriculture. 山坡地多元擋土設施運用研究, 農委會水土保持局委託研究案, 主持人, NT\$2,700,000, March 2020-Dec 2020.
- PI, “Community-based Disaster Management Program in Hill Land 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, “Promoting Observation Operations of Water and Sediment in Sloped Terrain”, funded by Rural Development and Soil and Water Conservation Agency, 坡地水砂觀測作業推動計畫, 農村水保署委託研究案, 共同主持人, NT\$34,000,000, March 2024-December 2024.
- Co-PI, “Safety Monitoring Platform and Overall Safety Assessment of Kao 133 Highway and Bridge in Liouguei District, Kaohsiung City, funded by Public Work Bureau, Kaohsiung City Government. 高雄市六龜區高 133 線道路橋梁安全監測平台及整體安全評估委託技術服務案, 高雄市政府工務局新建工程處委託研究案, 共同主持人, NT\$20,000,000, April 2023-March 2026.
- Co-PI, “Design and Performance Evaluation OF Eco-Friendly River Bank Earth Structures”, funded by Soil and Water Conservation Bureau, Council of Agriculture. 生態友善護岸設施設計與性能評析研究, 農委會水土保持局委託研究案, 協同主持人, NT\$2,640,000, February 2023-Dec 2023.
- Co-PI, “Strengthen Taiwan’s Disaster Preparedness and Cooperation against Large Scale Natural Disasters”, funded by Taipei City Fire Department, 臺北市強韌臺灣大規模風災震災整備與協作計畫, 臺北市政府消防局委託研究案, 協同主持人, February 2023-Dec 2028.
- Co-PI, “Community-based Disaster Management Program in Hill Land Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 112-113 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, 共同主持人, Jan 2023-Dec 2024.
- Co-PI, “Experimental and Numerical Studies on the Improvement of the Blast-Resistance Performance of Protective Shelters:”, funded by National Chung-Shan institute of Science and Technology, 提升國軍抗炸掩體防護性能之數值模擬與試驗研究, 國家中山科學研究院委託研究案, 共同主持人, June 2022-June 2024.
- Co-PI, “Maintenance and Management Guidelines for Railway Slopes Geotechnical Facilities”, funded by Railway Bureau, Ministry of Transportation and Communications. 鐵路邊坡維護與管理規範, 交通部鐵道局委託研究案, 共同主持人, NT\$3,800,000, April 2022-Oct 2023.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (5/5)”, 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, Jan 2022-Dec 2022.
- Co-PI, “Landslide Susceptibility Analysis using InSAR Monitoring Data (2/2)”, funded by CECI Engineering Consultants, Inc., 結合時空因子與 InSAR 觀測資料之地表變位分析與預測, 臺灣世曦工程顧問公司委託研究案, 協同主持人, NT\$900,000, Jan 2021-Dec 2021.

- Co-PI, “Community-based Disaster Management Program in Hill Land Communities in Taipei

- City”, funded by Taipei City Geotechnical Engineering Office. 110-111 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，共同主持人，Jan 2021-Dec 2022.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (4/5)”, 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，Jan 2021-Dec 2021.
- Co-PI, “Landslide Susceptibility Analysis using InSAR Monitoring Data (1/2)”, funded by CECI Engineering Consultants, Inc., 結合時空因子與 InSAR 觀測資料之地表變位分析與預測，臺灣世曦工程顧問公司委託研究案，協同主持人， NT\$900,000, Jan 2020-Dec 2020.
- Co-PI, “Community-based Disaster Management Program in Hill Land Communities in Taipei City”, funded by Taipei City Geotechnical Engineering Office. 109 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，共同主持人， NT\$3,642,000, February 2020-Dec 2020.
- Co-PI, “Disaster Prevention and Protection Project of Taipei City (3/5)”, 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 2020-Dec 2020.
- Co-PI, “Community-based Disaster Management Program in Hill Land 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，共同主持人， 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 Hill Land 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 Hill Land 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, “Urban-Scale Geothermal Systems for Sustainable Communities”, NTU/U of I Joint Research and Innovation Seed Grants Project funded by National Taiwan University, 城市尺度淺層地熱系統於永續社區之應用，臺大/伊利諾大學共同種子研究與創新計畫，主持人，NT\$600,000, January 2024-December 2025.

PI, “Influence of Climate Change on Slope Stability: Considering Soil Coupled Thermo-Hydraulic Constitutive Relationships”, Short-Term Research Abroad Project funded by National Science and Technology Council, 氣候變遷對邊坡穩定之影響：考量土壤熱-水力耦合關係，國科會國外短期研究計畫，主持人，NSTC112-2918-I-011-006, NT\$383,680, January 2023-June 2023.

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-July2016.

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载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-July2015.

Intramural Research Project

- PI, “Performance and Design Methods of Geosynthetic-Reinforced Soil Structures subjected to Reverse Fault: A Faulting Hazard Mitigation Measure”, Laurel Research Project, funded by National Taiwan University, 加勁構造物在逆斷層作用下之力學行為與設計方法: 抗斷層錯動減災工法, 臺大學術研究生涯發展計劃-桂冠型研究計畫, 主持人, August 2021-July 2024.
- PI, “Development of Disaster Mitigation Techniques for Landslide Geohazards (Visiting Research in Kyoto University), Faculty Exchange Program, funded by National Taiwan University, 發展山崩防減災技術(京都大學研究訪問), 臺大交換教授研究計畫, 主持人, August 2020.
- 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, 臺大學術研究生涯發展計劃-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.

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.
- CIE7217-*Case Studies in Geotechnical Engineering* 大地工程個案分析, (Graduate level, Co-Instruction with other Geotech faculty) A series of geotechnical engineering case studies, covering topics such as investigation, design, construction, disaster mechanisms, remediation methods, and safety monitoring. The scope of the projects includes issues related to slopes, foundations, tunnels, retaining structures, and liquefaction. Through comprehensive case studies and analyses, students will gain an in-depth understanding of the complexities of practical geotechnical engineering design and develop their problem-solving skills in real-world engineering scenarios.
- 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.
- CIE7111-*Civil Engineering Seminar* 土木工程專題討論, (Graduate level), A series of lectures for international students on the current issues of civil engineering in academic research or industrial practice. Compilation of effective summary reports and abstracts, evaluation of motivations and objectives in civil research, scope and organization of research reports, critical evaluation of the literature, presentation of research results, analysis of results, compilation of conclusions.
- MDR7030-*Geohazards Mechanism and Mitigation* 大地災害機制與防治, (Graduate level), This course introduces key principles for mechanism and mitigating the impact of geohazards induced by earthquake and rainfall infiltration including soil liquefaction and slope related problems. Mapping, monitoring and warning for landslide and debris flow will be introduced. Unsaturated soil mechanics and flow process will be covered and applied to slope stability analysis. Topics include the characteristics of various geohazards, the risk assessment process, and a detailed discussion of hazard mitigation.
- 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.
- 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.
- 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, statistically indeterminate beams, columns, analysis of stress and strain.

- BSE5064 –*Soil and Water Conservation Engineering* 水土保持工程, (Undergraduate level), Three hour lecture on the slope stability and stabilization, including the definition of factor of safety, fundamentals of limit equilibrium analyses, infinite slope analyses, finite slope analyses, ordinary method of slices, simplified Bishop method, Spencer's method, computer-aided analysis, slope monitoring, stabilization and remediation.
- CIE2024-*Keystone Project-Earth Dam Monitoring* 原型實踐-土壩監測, (Undergraduate level), Application of the knowledge and technology on soil behavior and water flow that students learned in the courses Soil mechanics, Fluid mechanics, and the relevant laboratories: 1) to investigate the dam failure using simple calculations and small-scale model tests; 2) to conduct large scale earth dam failure monitoring; 3) to propose and evaluate the remedial measures to improve the performance and stability of the earth dam
- CIE3051-*Civil Engineering Practice and Summer Intern* 土木工程實務與暑期實習, (Undergraduate level), A series of lectures for students to prepare and understand the practice in the civil engineering industry.
- CIE4023-*Civil Engineering Professional Intern* 土木工程專業實習, (Undergraduate level), Guidance and arrangement for students to participate in the professional intern in the in the civil engineering industry.
- CIE1003- *Student Service Education – Civil Engineering Buddy Program* 服務學習-國際學生學伴服務, (Undergraduate level), This course is to organize student volunteers to help international students quickly adapt to the lives in Taiwan and immerse in NTU's study environment. Through the planning and implementation of inter-cultural activities, the interaction between local and international students would be (re)activated, students' global perspective would be broadened, the spirit and attitude towards service learning could be developed, and managerial and leadership abilities would be cultivated.
- INTL2200- *Global Competence with Internationalization at Home* 認識全球與在地國際化, (Undergraduate level), This course invites foreign national representatives and ambassadors as guest speakers. They will share their insights on their countries' unique issues, provide observations in terms of career experience, and address global learning in times of uncertainty. The topics will demonstrate complex shared societal issues, such as education, diplomacy, economy, ecological and environmental protection, democracy, etc. This global course aims to advance professional and global competence in international and multicultural fields.

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
Postdoc	1	2
Ph.D. Student	8	8
Master Student	54	5
Undergraduate Student	13	0
International Exchange Student	4	0
		105 In Total

Student Awards

- 吳昕明 (2025), Ph.D. student in NTU, received “Geotechnical Engineering Ph.D. Dissertation Award”, Taiwan Geotechnical Society, 113 年度大地工程博士論文獎, 中華民國大地工程學會頒發。
- 毛馨白 (2025), master student in NTU, received “Geotechnical Engineering Master Thesis Honorable Mention”, Taiwan Geotechnical Society, 113 年度大地工程碩士論文佳作, 中華民國大地工程學會頒發。
- 程雁青 (2024), master student in NTU, received “Gold Medal Award”, 2024 Civil and Hydraulic Engineering Cup for English Presentation Contest, Chinese Institute of Civil and Hydraulic Engineering, 2024 土木水利盃英語簡報競賽金牌獎, 中國土木工程學會頒發。
- 吳俊緯 (2024), Ph.D. student in NTU, received “Student Paper Contest Award”, The 20th Conference of Taiwan Geotechnical Engineering, 第 20 屆台灣大地工程研討會學生論文競賽獎, 中華民國大地工程學會頒發。
- 吳昕明 (2024), Ph.D. student in NTU, received “Dean’s Award for Graduate Student”, College of Engineering, National Taiwan University, 112 年度臺大工學院研究生院長獎, 國立臺灣大學工程學院頒發。
- 傅雅萱 (2024), master student in NTU, received “Geotechnical Engineering Master Thesis Honorable Mention”, Taiwan Geotechnical Society, 112 年度大地工程碩士論文佳作, 中華民國大地工程學會頒發。
- 吳俊緯 (2023), Ph.D. student in NTU, received “NTU Outstanding Youth Award”, NTU, 臺大優秀青年, 國立臺灣大學頒發。
- 吳俊緯 (2023), Ph.D. student in NTU, received “Best Ph.D. Student Paper Award”, Taiwan Rock Engineering and Engineering Geology Conference, 2023 岩盤工程與工程地質研討會博士生論文特優獎, 國立陽明交通大學土木工程學系頒發。
- 蔣榮 (2023), Ph.D. student in NTU, received “Geotechnical Engineering Ph.D. Dissertation Award”, Taiwan Geotechnical Society, 111 年度大地工程博士論文獎, 中華民國大地工程學會頒發。
- 蔣榮 (2023), Ph.D. student in NTU, received “Geosynthetics Ph.D. Dissertation Award”, Taiwan Geosynthetics Society, 111 年度地工材料博士論文獎, 中華地工材料協會頒發。
- 林佳靜 (2023), master student in NTU, received “Geotechnical Engineering Master Thesis Award”, Taiwan Geotechnical Society, 111 年度大地工程碩士論文獎, 中華民國大地工程學會頒發。
- 林佳靜 (2023), master student in NTU, received “Geosynthetics Master Thesis Award”, Taiwan Geosynthetics Society, 111 年度地工材料碩士論文獎, 中華地工材料協會頒發。
- 吳昕明 (2022), Ph.D. student in NTU, received “Ph.D. Student Research Abroad Grant”, National Science and Technology Council, 111 年度補助博士生赴國外研究(千里馬)計畫, 國科會頒發。
- 林佳靜 (2022), master student in NTU, received “Student Paper Contest Award”, The 19th Conference of Taiwan Geotechnical Engineering, 第 19 屆台灣大地工程研討會學生論文競賽獎, 中華民國大地工程學會頒發。
- 蔣榮 (2022), Ph.D. student in NTU, received “Dean’s Award for Graduate Student”, College of Engineering, National Taiwan University, 111 年度臺大工學院研究生院長獎, 國立臺灣大學工程學院頒發。

- 林佳靜 (2022), master student in NTU, received “Dean’s Award for Graduate Student”, College of Engineering, National Taiwan University, 111 年度臺大工學院研究生院長獎，國立臺灣大學工程學院頒發。
- Sukrityranjan Samanta (2022), master student in NTU, received “NTU Outstanding International Graduate Student Scholarship”, National Taiwan University, 臺大傑出國際研究生獎學金，國立臺灣大學頒發。
- 吳昕明 (2021), Ph.D. student in NTU, received “Best Student Paper Award”, Taiwan Soil and Water Conservation Conference, 110 年度水土保持研討會學生論文獎第一名，中華水土保持學會頒發。
- 吳昱葵 (2020), master student in NTU, received “Geotechnical Engineering Master Thesis Award”, Taiwan Geotechnical Society, 109 年度大地工程碩士論文獎，中華民國大地工程學會頒發。
- 蔣榮 (2020), Ph.D. student in NTU, received “Ph.D. Student Research Abroad Grant”, Ministry of Science and Technology, 109 年度補助博士生赴國外研究(千里馬)計畫，科技部頒發。
- 呂昕臻 (2019), master student in NTU, received “Geotechnical Engineering Master Thesis Award”, Taiwan Geotechnical Society, 108 年度大地工程碩士論文獎，中華民國大地工程學會頒發。
- 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 Asia Geosynthetics 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 Asia Geosynthetics 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。

Postdoc Research

1. Ravendra Rajak (2024-2025), Research Project: “Evaluation of the Impacts of Load Loss in Existing Soil Anchors on Failure Mechanisms and Slope Stability”, NTU.
2. 吳昕明 (2024-2025), Research Project: “Development and Integration of Multiple Investigation, Analyses, and Improvement Methods for Shallow Landslide Disasters”, NTU.
3. 蔣榮 (2022-2024), Research Project: “Performance and Design Method of Geosynthetic-Reinforced Soil Structures subjected to Reverse Fault: A Faulting Hazard Mitigation Measure”, NTU.

Ph.D. Supervision in Progress

1. 林家寅 (2024~2028 Expected), Potential Research Direction: “Performance of Soil Anchor Wall with Anchor Presload Loss”, NTU.
2. 汪俊彥(2023~2027 Expected), Potential Research Direction: “Landslides”, NTU.
3. Tatag Yufitra Rus (2023~2027 Expected), Potential Research Direction: “Landslides”, NTU.
4. Tommy Pratama (2023~2027 Expected), Potential Research Direction: “Thermal-Hydro-Mechanical Response of Energy Foundation in Taiwan,” NTU.
5. 吳俊緯 (2022~2025 Expected), Potential Research Direction: “Performance of Geosynthetic-Reinforced Embankment and Foundation Systems against Fault Movement for Disaster Mitigation”, NTU.
6. Michel Bethie Emerson Edwige (2021-2025 Expected), Potential Research Direction: “Finite Element Analysis of Geosynthetic-Reinforced Soil Embankment-Foundation System subjected to Reverse Faulting”, NTU.
7. 盧瑜典(2020-2024 Expected), Potential Research Direction: “Large-scale landslides”, NTU.
8. 施嘉昌(2019-2023 Expected), Potential Research Direction: “Efficiency and Optimum Design of Subsurface Drainage Systems for Slope Stabilization”, NTU.

Ph.D. Supervision Completed

4. 吳昕明 (2024), Dissertation: “Evaluation of the Performance of Geosynthetic-Reinforced Soil Structures subjected to Rainfall and Flooding”, NTU.
5. 蔣榮 (2022), Dissertation: “Performance of Geosynthetic-Reinforced Foundations subjected to Fault Movement”, NTU.
6. 曾世傑 (2022), Dissertation: “Experimental and Numerical Studies on the Blast-Resistance Performance of Geotextile-Reinforced Soil”, Taiwan Tech.
7. Nguyen Thanh Son (2020), Dissertation: “Deformation Characteristics of Unstable Shallow Slopes triggered by Rainfall Infiltration: from Pre-Failure to Post-Failure Stages”, Taiwan Tech.
8. Williams Mathieu Adilehou (2017), Dissertation: “Hydraulic Responses of Fiber-Reinforced Soil Susceptible to Piping and Suffusion Failures”, Taiwan Tech.
9. Joseph Nganga Thuo (2017), Dissertation: “Hydro-Mechanical Coupled Analysis of Unsaturated Nature and Reinforced Soil Slopes”, Taiwan Tech.
10. Suliman Badawi Mohamed (2014), Dissertation: “Numerical Analyses and Design Considerations of Geosynthetic-Reinforced Two-Tier Structures”, Taiwan Tech.
11. 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 in Progress

1. 黃津津 (2023~2025 Expected), Potential Research Direction: “Hydro-Thermal Coupling Analysis on the Impact of Groundwater on the Performance of Energy Foundations”, NTU.
2. 林彥翔 (2023~2025 Expected), Potential Research Direction: “Machine Learning for Determining Landslide Susceptibility and Critical Rainfall Threshold: A Case Study of Taiwan Railway Slopes”, NTU.
3. 李宥安 (2023~2025 Expected), Potential Research Direction: “Finite Element Modeling of Narrow Geosynthetic-Reinforced Soil Walls with Connections to Shoring Wall”, NTU.
4. 林琬潔 (2023~2025 Expected), Potential Research Direction: “Failure Mechanism of Unsaturated Slopes under Rainfall Infiltration and Establishment of Disaster Warning Standards: A Case Study of the Liugui Slope in Kaohsiung”, NTU.
5. Chaicharn Thongthanawat (2023~2025 Expected), Potential Research Direction: “Performance of Geosynthetic-Reinforced Soil Check Dam: Case Study and Numerical Simulation”, NTU.

Master Student Supervision Completed

1. 夏昀 (2024), Thesis: “Numerical Study of Rainfall-Induced Unsaturated Soil Slope Failure by the Material Point Method”, NTU.
2. 吳文諺 (2024), Thesis: “Numerical Analysis of Geofilm Reinforced Soil subjected to Blast Load”, NTU.
3. 毛馨白 (2024), Thesis: “Thermal Responses of An Energy Raft Foundation in Taipei”, NTU.
4. 鐘源俊 (2024), Thesis: “Effect of Various Reinforcing Measures on Geosynthetic-Reinforced Embankment and Foundation Systems for Mitigating Reverse Fault-induced Hazards”, NTU.
5. 傅雅萱 (2023), Thesis: “Model Test on Geosynthetic Encased Column Stabilized Slopes

- Subjected to Seepage”, NTU.
6. 陳柏鈞 (2023), Thesis: “Landslide Susceptibility Assessment using Machine Learning based on Multiple Influential Factors”, NTU.
 7. Sukrityranjan Samanta (2023), Thesis: “Coupled Hydro-Mechanical Analysis of Geosynthetic Encapsulated Granular Columns Stabilized Slope Subjected to Seepage Conditions”, NTU.
 8. 彭逸蘋 (2022), Thesis: “Assessment of Failure Surface and Kinematic Behavior of Guanghua Landslide by MPM”, NTU.
 9. 張洵瑜 (2022), Thesis: “Simulation of Earth Berm in Excavation Based on Elastoplastic Foundation Beam Method Using TORSA”, NTU.
 10. 林佳靜 (2022), Thesis: “Model Test on Geosynthetic-Reinforced Soil Walls as River Banks Protection”, NTU.
 11. Richard Litanes (2021), Thesis: “Determination of Soil Properties and Numerical Analyses of Deep Excavations in Jakarta Clay”, NTU.
 12. 張乃軒 (2021), Thesis: “Landslide Susceptibility Assessment and Slope Displacement Threshold based on PSInSAR – Case Study of Landslides along Pu-Tun-Pu-Nas River Area”, NTU.
 13. 顏筱穎 (2021), Thesis: “Establishment of Slope Displacement Relationships between PSInSAR and Inclinomometer Measurement – Case Study of Taipei Maokong Slope”, NTU.
 14. 吳昱葵 (2020), Thesis: “Material Point Method Analysis of Post-Failure Process and Kinematic Behavior of Landslides”, NTU.
 15. 曾婷苓 (2020), Thesis: “Model Test o the Performance of Geosynthetic- Reinforced Soil Walls with Marginal Backfill subjected to Rainfall”, NTU.
 16. 詹于萱(2020), Thesis: “Finite Element Analysis and Design Method of Geosynthetic-Reinforced Soil Foundation subjected to Normal Fault Movement”, NTU.
 17. Mark Gonzaga (2019), Thesis: “Influence of Backfill Fines Content on the Performance of Geosynthetic-Reinforced Soil Walls under Rainfall Infiltration”, NTU.
 18. 呂昕臻 (2019), Thesis: “Evaluation of Improved Methods for Geosynthetic-Reinforced Soil Walls with Marginal Backfills subjected to Rainfall”, NTU.
 19. 吳健鈞 (2019), Thesis: “Three Dimensional Finite Element Analysis of Deep Excavation in Taichung Gravel Deposit”, NTU.
 20. 駱建澄 (2019), Thesis: “Numerical Evaluation of A Multi-tier Geosynthetic-Reinforced Soil Slope for Mudstone Slope Protection”, NTU.
 21. Tatag Yufitra Rus (2018), Thesis: “3D Finite Element Analysis of Deep Excavation in Central Jakarta using Total and Effective Shear Strength Properties”, Taiwan Tech.
 22. 李亦新 (2018), Thesis: “Performance and Design of Geosynthetic-Reinforced Soil Slopes subjected to Rainfall: Considering Regional Hydrological Conditions”, Taiwan Tech.
 23. 賴兆偉 (2018), Thesis: “Model Tests on Geosynthetic-Reinforced Soil Foundations across a Normal Fault”, Taiwan Tech.
 24. 白名旋 (2018), Thesis: “Model Tests on Fiber-Reinforced Sandy Embankments subjected to Seepage”, Taiwan Tech.
 25. 張瑞勳 (2017), Thesis: “Three-Dimensional Finite Element Modeling of Geosynthetic-Reinforced Soil Structures subject to Lateral Loadings”, Taiwan Tech.
 26. 陳均維 (2017), Thesis: “Hydro-Mechanical Coupled Analysis of A Multi-tier

- Geosynthetic-Reinforced Soil Slope subject to Rainfall Infiltration”, Taiwan Tech.
27. 魏韶邦 (2017), Thesis: “Fiber-Reinforced Gap-Graded Soil against Suffusion”, Taiwan Tech.
 28. Ndey Awa Ndure (2017), Thesis: “Shear Behavior and Pore Water Pressure Generation of Fiber-Reinforced Silt under Consolidated-Undrained Compression”, Taiwan Tech.
 29. 郭哲睿(2017), Thesis: “Failure Investigation of a Four Tier Geosynthetic- Reinforced Soil Slopes with Marginal Backfill”, Taiwan Tech.
 30. 簡碩廷(2016), Thesis: “Experimental and Numerical Study of Hydraulic Responses of Fiber-Reinforced Sand subject to Seepage”, Taiwan Tech.
 31. 李俊葦 (2016), Thesis: “Unconfined Compression Tests on Fiber-Reinforced Cemented Silt: Effect of Cement on Fiber Bonding Strength”, Taiwan Tech.
 32. 林庭妤(2016), Thesis: “Numerical Analyses of Geosynthetic-Reinforced Soil Walls with Flexible Wrapped Facings”, Taiwan Tech.
 33. Aila Wahyuning (2016), Thesis: “Establishment of Geotechnical Properties and 3D Numerical Models for Deep Excavation in Central Jakarta”, Taiwan Tech.
 34. Anh Huynh Vo Duyen (2016), Thesis: “Geotextile- and Geogrid-Reinforced Soil Slopes with Various Backfills and Sand Cushion Thickness Subject to Rainfalls”, Taiwan Tech.
 35. 唐嘉禧 (2015), Thesis: “Finite Element Analyses of Acceleration-Amplified Response within Geosynthetic-Reinforced Soil Structures”, Taiwan Tech.
 36. 林渝朋 (2015), Thesis: “Evaluation of Suitability of Limit Equilibrium Analysis for Geosynthetic-Reinforced Soil Wall Design”, Taiwan Tech.
 37. 林冠良 (2015), Thesis: “Hydro-mechanical Coupled Analyses of Rainfall induced Instabilities of Two Unsaturated Slopes”, Taiwan Tech.
 38. 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.
 39. 藍子軒 (2014), Thesis: “Investigation on Acceleration Amplification within Geosynthetic-Reinforced Soil Structures under Dynamic Loading”, Taiwan Tech.
 40. 陳毅修 (2014), Thesis: “Finite Element Study on Lateral Bearing Capacity and Failure Mode of Geosynthetic-Reinforced Soil Barriers”, Taiwan Tech.
 41. 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.
 42. Wubete Y. Mengist (2014), Thesis: “Behavior of Geotextile Reinforced Clay and Improvement with Sand-Sandwich Technique under Unconsolidated Undrained Tests”, Taiwan Tech.
 43. 張維洋 (2013), Thesis: “Influence of Reinforcement Stiffness on the Behavior of Reinforced Sand under Triaxial Compression Tests”, Taiwan Tech.
 44. 林俊佑(2013), Thesis: “Experimental Study on Drainage Efficiency and Improvement Measures of Low Permeable Soil with Geosynthetic Drainage Layers”, Taiwan Tech.
 45. 楊智皓 (2013), Thesis: “Reliability-Based Analysis for Internal Stabilities of Geosynthetic-Reinforced Soil Structures incorporating Model Uncertainties”, Taiwan Tech.
 46. Ayesha Avanti (2013), Thesis: “Numerical Analyses of Jakarta MRT Deep Excavation Project”, Taiwan Tech.

47. Bondan Ciptoprakoso (2013), Thesis: “The Influence of Existing Foundations on Adjacent Deep Excavation: A Parametric Study using Finite Element Method”, Taiwan Tech.
48. Rizkiyati A. Zhuraida (2013), Thesis: “Limit Equilibrium Analyses of Multi-Tiered Geosynthetic-Reinforced Structures”, Taiwan Tech.
49. 汪俊彥 (2012), Thesis: “Experimental Study on Seepage Failure of Uniform and Gap-Graded Soils”, Taiwan Tech.
50. 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.
51. 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.
52. Erick Y. Kencana (2012), Thesis: “Evaluation of Acceleration Amplified Response and Mobilized Reinforcement Loads within Geosynthetics-Reinforced Structures under Dynamic Loading”, Taiwan Tech.
53. 蔡明宏 (2011), Thesis: “Behavior of Reinforced Soil and the Mobilization of Reinforcement Strains using Triaxial Compression Tests”, Taiwan Tech.
54. Panji Utomo (2011), Thesis: “Evaluation of Various Design Methods for Predicting Reinforcement Tension within Geosynthetics-Reinforced Soil Structures”, Taiwan Tech.

Undergraduate Research Grants

1. 林劭儒 (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.

Undergraduate Student Research Program Completed

1. 吳崇瑜 (2022) Topic: “Thermal Response of Energy Raft Foundation in Taipei”, NTU.
2. 許嘉峻 (2022) Topic: “Landslide Susceptibility Assessment based on PSInSAR”, NTU.
3. 黃強 (2021), Topic: “Effect of Buttress Walls the Deep Excavation”, NTU.
4. 張祐齊 (2018), Topic: “Model Tests on Rainfall-Induced Shallow Landslide Failure”, NTU.
5. 林劭儒 (2016), Topic: “Triaxial Unconfined-Compression Tests on Fiber -Reinforced Cemented Silt for Soil Improvement”, Taiwan Tech.

6. 呂育德 (2014), Topic: “Geotechnical Ecological Engineering: The Influence of Unsaturated Soil Shear Strength on the Intertidal Habitat and Bivalve Behavior”, Taiwan Tech.
7. 黃慶瑜 (2014), Topic: “Geotechnical Ecological Engineering: The Influence of Unsaturated Soil Shear Strength on the Intertidal Habitat and Bivalve Behavior”, Taiwan Tech.
8. 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.
9. 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.
10. 徐梓隆 (2010), Topic: “Experimental Study on Failure Mechanism and Hydraulic Conditions of Soil Piping”, Taiwan Tech.
11. 陳世焯 (2010), Topic: “Experimental Study on Failure Mechanism and Hydraulic Conditions of Soil Piping”, Taiwan Tech.
12. 章紹騏 (2010), Topic: “Investigation on Potential Disaster Area and the Prevention Solutions”, Taiwan Tech.
13. 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, “Journal of GeoEngineering”, Taiwan Geotechnical Society, 總編輯, 大地工程期刊, 2021-Present

Editor-in-Chief, “TGS Geotechnical Special Publication”, Taiwan Geotechnical Society, 總編輯, 大地工程學會特刊, 2019-2021

Executive Editor, “Journal of GeoEngineering”, Taiwan Geotechnical Society, 執行編輯, 大地工程期刊, 2011-2020

Editorial Board Member, “Geotextiles and Geomembranes”, published by Elsevier, 編輯委員, 國際期刊, 2021-Present

Editorial Board Committee, “Journal of GeoEngineering”, 編輯委員, 大地工程期刊, 2021-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』, 行政院內政部建築研究所出版

SERVICE IN PROFESSIONAL SOCIETIES

International Society

Technical Committee, Reinforced Fill Structures (TC218), International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), 2020-Present

Technical Committee, Slope Stability in Engineering Practice (TC208), International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), 2020-Present

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

Technical Committee (TC-R), 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

Chinese Institute of Civil Engineering

Vice Chair of Academic and Educational Committee, and Committee Members of Geotechnical Engineering, International Affair, Young Engineer, and Student Activity Committee, Chinese Institute of Civil and Hydraulic Engineering, 中國土木水利工程學會 曾任學術與教育學委員會副主委, 大地工程、國際關係、青年工程師、與學生活動委員會委員

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, 中國土木水利工程學會永續發展綠營建部分工作小組, 2014

Taiwan Geotechnical Society

Executive Committee Member, Council Committee Member, Chair of Young Geotechnical Engineer Delegates Committee, Journal Editorial Board, and Geotechnical Special Publication, and Vice Chair of Member Service Committee, Taiwan Geotechnical Society, 中華民國大地工程學會 曾任常務理事、理事, 優秀青年大地工程師評選委員會主委, 學刊委員會主委, 特刊委員會主委, 會員委員會副主委

Committee Member 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

Committee Member 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

Committee Member on Review for the Construction adjacent to MRT System and Railway, Taiwan Geotechnical Society, 中華民國大地工程學會大眾捷運系統暨鐵路兩側禁限建範圍內列管案件審查作業委員

Taiwan Geosynthetics Society

Council Committee Member, Chair of Academic Committee, and Member Service Committee, and Vice Chair of International Liaison Committee, Taiwan Geosynthetics Society, 中華土工材料協會 曾任理事, 學術委員會主委, 委員會主委與國際事務委員會副主委

Sino-Geotechnics Research and Development Foundation

Board of Directors, Sino-Geotechnics Research and Development Foundation, 財團法人地工技術研究發展基金會 董事

Committee Member of Academic Committee, and TORSA Development and Promotion Committee, Sino-Geotechnics Research and Development Foundation, 財團法人地工技術研究發展基金會 學術委員會委員與 TORSA 研究與推廣委員會委員

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

Council of Agriculture

Reviewer, Review for Simplified Soil and Water Conservation Proposal, designated by the Soil and Water Conservation Bureau, Council of Agriculture, 簡易水土保持計畫書, 審查委員, 農委會水土保持局, January 2022

Reviewer, Review for Design of Large-Scale Landslide Stabilization Project, designated by the Soil and Water Conservation Bureau, Council of Agriculture, 大規模崩塌區治理工程, 審查委員, 農委會水土保持局, 2020-2021

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

Panelist, Review of High School Student Learning Portfolio, designated by the Ministry of Education, 教育部學習歷程檔案審議計劃, 大學教授與談者, 教育部, September 2020

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

Ministry of Science and Technology

Reviewer, Second Review for Research Project Proposal, designated by the Ministry of Science and Technology, 科技部專題研究計劃, 複審委員, 科技部, since 2020

Reviewer, Preliminary Review for Research Project Proposal, designated by the Ministry of Science and Technology, 科技部專題研究計劃, 初審委員, 科技部, since 2012

Reviewer, Preliminary Review for Undergraduate Student Research Project Proposal, designated by the Ministry of Science and Technology, 科技部大專生研究計劃, 初審委員, 科技部, since 2021

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

Ministry of Transportation and Communication

Reviewer, Review for Inspection and Maintenance Manual for Railway Slopes, designated by the Ministry of Transportation and Communications, 『台鐵邊坡養護手冊』, 審查委員, 交通部, January 2022

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 Design and Maintenance Guidelines for Highway Slopes, 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-Sijih 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

City and County Government

Judge and Supervisor, “55th Taipei Primary and Secondary School Science Fair”, designated by the Education Department of Taipei City Government, 第55屆臺北市中小學科學展覽, 評審委員與輔導教授, 臺北市政府教育局, March 2022

Reviewer, Evaluation for the T Taoyuan MRT Green Line GC03 Underground Section between G07 Station~North Daylighting Civil Construction Turnkey Project, designated by the Public Work Department of New Taipei City Government, 桃園捷運綠線計畫潛通穿越中山高速公路施工計畫書, 審查委員, 桃園市政府捷運局, October 2021

Expert Consultant, Consultation for the Landslide Stabilization Project, designated by the designated by the Water Resources Bureau of Kaohsiung City Government, 高雄崩塌治理工程, 專家學者, 高雄市政府水利局水土保持科, April 2021

Reviewer, Evaluation for the Project Execution of Intelligent Disaster Prevention Community in the Hill Land Area of New Taipei City, designated by the Public Work Department of New Taipei City Government, 新北市山坡地智慧防災社區計畫, 審查委員, 新北市政府工務局, February 2020

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

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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

SERVICE IN ORGANIZATION OF TECHNICAL EVENTS

Conference

Academic Committee, “2021 Conference on Computer Applications in Civil and Hydraulic Engineering (CCACHE 2021)”, organized by Chinese Institute of Civil and Hydraulic Engineering, and National Central University, 2021 電子計算機於土木水利工程應用研討會, 中國土木水利工程學會與國立中央大學主辦, Taoyuan, Taiwan, 2021

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, 2021

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

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

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

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

Session Chair

Moderator, “International Forum: From Civil Engineering to Civilization”, 110th Anniversary of Civil Engineering Discipline and International Forum at Tongji University, Shanghai, China, November 2024.

Session Chair, “Early Warning Systems for Multi-Hazards”, *The 19^h APRU Multi-Hazards Symposium*, Taipei, Taiwan, October 2024.

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, “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.

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, “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 Houlby 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 Houlby 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, “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, “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

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系招生

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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

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土木系系學會國際部成立
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
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