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1997~1998 Adjunct assistant professor, Yunlin University of Science and Technology
1996-1997 Manager, Genesis Group/Taiwan, Taipei, Taiwan
1997~ Registered Professional Geotechnical Engineer (P.E.) in Taiwan
1990/7~1995/6 Research assistant on Computer Programming, Construction Engineering
Research Laboratories (USACERL), Champaign, Illinois, USA
1990/1~1990/6 Research assistant, Department of Geology, University of Illinois, Urbana, USA
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Research Interest

1. Slope stability and slope engineering

Coupled hydro-mechanical analysis on the stability of unsaturated soil slopes during rainfall
Effect of the unsaturated characteristic of geological formation on the stability of slopes
Early warning of slope instability based on monitoring of water content in the slope during rainfall
Early-warning system for rockfalls

2. Unsaturated soils

The soil-water characteristic curve for residual soils and colluvium soils

3. Soil-root interactions and soil eco-engineering

The turning moment for trees during typhoons
Evaluation of the stability of forest stand in intense rainfall
The shear resistance of root-permeated soils using *in-situ* shear tests
The soil-root bonding behavior using *in-situ* pullout tests
Effect of plant root morphology on the stability of vegetated slopes

Publications:

(I) Referred journal papers (2011~)

Chou, Nelson N.S., Liu, Tai-Yi, Chen, Po-Han, Fan, Chia-Cheng, Zhang, Jun. (2020). Failure Investigation and Sustainable Renovation for Slope at National Chi Nan University in Taiwan. Paper accepted for publication in the *Journal of Performance of Constructed Facilities, ASCE*. (SCI)

Fan, Chia-Cheng and Wang, Hsiao-Ze (2019). The behavior of wetting front on slopes with different slope morphologies during rainfall. *Journal of hydro-environment research* 25, 48-60. (SCI)

Fan, Chia-Cheng, Huang, Cyun-Han, Chen, Jiong-Hao (2019). Role of plant root morphology in

- the stability of vegetated slopes. *Journal of GeoEngineering* 14(4), 219-228. (EI)
- Fan, Chia-Cheng and Chang, Jui-Jen. (2018). Lessons learned from the failure of a reinforced earth retaining structure rested in a landfill. *Journal of GeoEngineering*, Vol. 13, No. 4, pp. 171-178. (EI)
- Fan, Chia-Cheng and Tsai, Ming-Hung (2016). Spatial distribution of plant root forces in root-permeated soils subject to shear. *Soil and Tillage Research* 156, 1-15. (SCI)
- Fan, Chia-Cheng and Chang, Hsu-We (2015). The role of time in the hydrological behavior of residual soil slopes during rainfall. *Catena*, 124, 1-8. (SCI)
- Fan, Chia-Cheng and Lai, Yi-Fan (2014). Influence of the spatial layout of vegetation on the stability of slopes. *Plant and Soil*, 377(1~2), 83-95. (SCI)
- Fan, Chia-Cheng (2012). A displacement-based model for estimating the shear resistance of root-permeated soils. *Plant and Soil*, 355, 103-119. (SCI)
- Fan, Chia-Cheng and Hsiao, Chin-Fu (2012). Role of topography in the behavior of the matric suction of unsaturated fill slopes. *Bulletin of Engineering Geology and the Environment*, 71(1), 61-69. (SCI)
- 范嘉程，黃俊龍(101年) ”頁岩風化不飽和土壤之土壤水分特性曲線”，中華水土保持學報，43(3)，197-205。(9月)
- Fan, Chia-Cheng and Hsiao, Chin-Fu (2011). Field performance of a hybrid reinforced earth embankment built adjacent to a slope with narrow fill space. *Journal of GeoEngineering*, 6(1), 47-62. (EI)
- Fan, Chia-Cheng and Hsieh, Chih-Chung (2011). The mechanical behaviour and design concerns for a hybrid reinforced earth embankment built in limited width adjacent to a slope" *Computers and Geotechnics*. 38(2), pp. 233-247. (SCI)

(II) Conference papers(2011~)

- Fan, Chia-Cheng**, Jin Zong Lu, and Hsin Hung Chen (2019). The pullout behavior of plant roots in highly saturated soil mass. 16 Asian Regional Conference on Soil mechanics and geotechnical engineering, Taipei, 2019.
- Fan, Chia-Cheng**, Luo, Jun-Bin, Chang, Ruey-Zen, Huang, Guo-Wei (2019). The mechanism of long-time displacement in a colluvium slope underlain by mudstone. Japanese Geotechnical Society Special Publication, Volume 7, Issue 2, 219-222. (The 7th Asia-Pacific Conference on Unsaturated Soils, August, Nagoya Japan)
- Fan, Chia-Cheng**, Luo, Yu-Bin (2018). The Role of Soil Water Contents in Soil Displacements in an Unstable Slope. 8th Japan-Taiwan Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, October, 24-26, 2018, Kyoto, Japan.

- Fan, Chia-Cheng** and Ching-Feng Wu (2018). Numerical modeling on the drainage problem for a landfill site on a hillslope. Proceeding of 28th International Society of Ocean and Polar Engineering, V2, June, 2018, Japan. 601-606. **(EI indexed)**
- 范嘉程、陳信宏 (2018). 植物根系於土壤中之拉拔行為。2018 土木防災與環境永續研討會, 高雄。(最佳論文獎)
- 范嘉程、陳信宏 (2018). 極端氣候強烈降雨對植物單根抗拉拔行為之影響。2018 土木防災與環境永續研討會, 高雄。
- 范嘉程、吳金芳 (2017). 八芝蘭竹根系於河岸邊坡土體保護穩定效益評估。第 17 屆大地工學術研討會, 宜蘭。
- Fan, Chia-Cheng** and Yeh, Zhi-Xin (2017). Field performance of vegetative erosion control blankets in protecting slopes from shallow failures. the 19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul, 2017. **(EI indexed)**
- Fan Chia-Cheng**, Chang, Ruey-Zen (2016). Investigation on the failure of a reinforced earth structure in a landfill. The 7th Taiwan-Japan Joint Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, November, Pingtung, Taiwan.
- 范嘉程、曾仁郁 (2015). 使用水文及力學耦合技術於不飽和土壤邊坡穩定分析之可靠性評估。第 16 屆大地工程學術研討會, 高雄。
- 范嘉程、張旭葳 (2015). 建立風化土壤邊坡之土壤含水量發展時間與降雨特性之關係。第 16 屆大地工程學術研討會, 高雄。
- 潭進財、范嘉程、盧之偉、陳倍坤、賴羿帆 (2015). 加勁擋土結構在坡地垃圾掩埋場損壞原因之探討。第 16 屆大地工程學術研討會, 高雄。
- Fan, Chia-Cheng**, Sai-Hao Liu (2015). The hydrological mechanism of a residual soil slope undergoing deformations during rainfall. In: Unsaturated Soil Mechanics- from theory to practice, 2015, pp.846-851. (Proceeding of the 6th Asia-Pacific Conference on Unsaturated Soils, Guilin, China) 2015. **(EI indexed)**
- Fan, Chia-Cheng**, Ren-Yu Zeng (2015). Effect of characteristics of unsaturated soils on the stability of slopes subject to rainfall. Japanese Geotechnical Society Special Publication 2(29), 1060-1064, 2016 (ISSN: 2188-8027) (the 15th Asia Regional Conference, Fukuoka, Japan, November 9-13, 2015.) **(EI indexed)**
- Fan, Chia-Cheng** and Wang, Hsiao-Ze (2014). The mechanism of soil moisture contents in a slope gully during rainfall. in: Unsaturated Soils: Research & Applications (the 6th International Conference on Unsaturated Soils, July, Sydney, Australia). **(EI indexed)**
- Fan, Chia-Cheng** and Hau-Juh Chen (2013). Time effect on the Failure mechanism of unsaturated soil slopes subjected to rainfall. Proceeding of the 18th Southeast Asia Geotechnical Conference, Singapore.
- Fan, Chia-Cheng** and Yi-Fan Lai (2012). Influence of the spatial distribution of vegetation on

the stability of slopes. the 3rd International Conference on Ground Bio- and

Eco-engineering: The Use of Vegetation to Improve Slope Stability, Vancouver, Canada.

范嘉程，盧祈均(102年)，降雨情況下不飽和土壤邊坡基質吸力與時間因子之機制，第十五屆大地工程學術研討會，雲林，9月。

范嘉程，劉云呈(102年)，RC護岸於河川洪流影響下之安全穩定性評估，第十五屆大地工程學術研討會，雲林，9月。

范嘉程，黃俊龍(100年)，頁岩風化不飽和土壤之土壤水分特性曲線，2011年中華水土保持年會及學術研討會，台中，12月。

范嘉程，賴羿帆(100年)，植生配置方式對邊坡穩定之效益，第十四屆大地工程學術研討會，桃園，8月。