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[https://www.mdpi.com/journal/sustainability/special\\_issues/P2O9OJN6I7](https://www.mdpi.com/journal/sustainability/special_issues/P2O9OJN6I7)

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[http://www.ce.nkust.edu.tw/upload/ckeditor/files/Hsiao%2C%20D\\_H\\_-20220725.pdf](http://www.ce.nkust.edu.tw/upload/ckeditor/files/Hsiao%2C%20D_H_-20220725.pdf)

Prof. Hsiao received academic degrees from B.S. in Civil Engineering in 1981, M.S. in Geotechnical Engineering Group in 1983, and Ph.D. in Civil Engineering in 1996, respectively (National Cheng-Kung University, Tainan, Taiwan). He has worked 40 years at the Department of Civil Engineering, National Kaohsiung University of Sciences and Technology. He also earned the Outstanding Teaching Award (2007) and the Outstanding Class Teacher Award (2006). Since joining the University, Prof. Hsiao has worked over 50 research projects, received four patents, written more than 100 academic papers and professional plan reports from various fields, including pipeline analysis in seismic, soil liquefaction, slope stability and soil debris, risk analysis, and soil improvement, including case study in the site, laboratory and numerical researches. In order to obtain the experiences in the field, he also achieved Professional Engineer of Civil Engineering, and Geotechnical Engineering in Taiwan. In the past, Prof. Hsiao has served as a guest editor of special issues of Sustainability (2022).

Paper Published:

1. **Darn-Horng Hsiao**, Zhi-Han Lin, Ting-Chen Huang, “The Design Indicators of Scenic Area for Recreation Facilities,” 9<sup>th</sup> International Congress on Engineering and Information, Low Carbonization Society, 9<sup>th</sup> ICEAI @ Tokyo, Japan, from 12/21-12/23, (2023).
2. **Darn-Horng Hsiao** and Chung-Chieh Lin, “Effects of the Properties of Fines on the Pore Water Pressure Generation Characteristics of Sand-Silt-Clay Mixtures during Cyclic Loading,” Appl. Sci. 2023, 13, 8126. <https://doi.org/10.3390/app13148126> (2023). (SCI)
3. Bin-Chen Benson Hsiung, Khac-Hai Phan, and **Darn-Horng Hsiao**, “A Study on the Impacts of One-Strut Failure Scenarios for Deep Excavation in Loose to Medium-Dense Sand,” Sustainability 2023, 15, 10530. <https://doi.org/10.3390/su151310530>. (2023). (SCI)
4. Chia-Sheng Hsieh, **Darn-Horng Hsiao**, and Di-Yi Lin, “Contour Mission Flight Planning of UAV for Photogrammetric in Hillside Areas,” Appl. Sci. 2023, 13, 7666. <https://doi.org/10.3390/app13137666> (2023). (SCI)
5. **Darn-Horng Hsiao** and Chia-Sheng Hsieh, “Improving Mudstone in Badland in Southwestern Taiwan by Increasing Density and Low-Cement Amount Materials,” Appl. Sci., 12, 2290. <https://doi.org/10.3390/app12052290>. (2022). (SCI)

6. **Darn-Horng Hsiao**, Chung-Chieh Lin, Wei-Hong Jian, "Study on the generation curve of pore water pressure for non-plastic and plastic soils during cyclic loadings," Proceeding of the 19<sup>th</sup> conference on current researches in geotechnical engineering in Taiwan (2022).
7. **Darn-Horng Hsiao**, Hung-Hui Li, Li-Ni Su, Yao-Wen Liang, "Effect of particle gradation on void ratio of gravel soils by DEM," Proceeding of the 19<sup>th</sup> conference on current researches in geotechnical engineering in Taiwan (2022).
8. **Darn-Horng Hsiao**, Li-Ni Su, "Fluid thickness of lubricant materials by polymer support fluids on the shear strength between sands and concrete," TCI 2021 Conference on Concrete Engineering (2021).
9. **Darn-Horng Hsiao**, Chung-Chieh Lin, "Improving Mudstone in Badland in Southwestern Taiwan by using engineering compaction technology or adding a small amount of cement," TCI 2021 Conference on Concrete Engineering (2021).
10. **Darn-Horng Hsiao**, Min-Yen Shin, "Comparison and Explanation of Soil Liquefaction Test Results for the Specimens Obtained by Using Thin-Wall Tube Sampling at Yunlin, Central Taiwan," ICCEGE 2020: International Conference on Civil Engineering and Geotechnical Engineering, Barcelona Spain Jun 11-12, Part VII, pp.1137-1147 (2020).
11. **Darn-Horng Hsiao**, Chun-Hui Lu, You-Wei Li, "Physical properties analysis on soil engineering properties of the soils in Kaohsiung," Proceeding of the 18<sup>th</sup> conference on current researches in geotechnical engineering in Taiwan (2020).
12. **Darn-Horng Hsiao**, Zhu-Yun Zheng, "Simplified Empirical Method for Predicting Liquefaction Potential and Its Application to Kaohsiung Areas in Taiwan" Geotechnical and Geological Engineering, Vol:13, No:7, pp.482-490, (2019). (SCI)
13. **Darn-Horng Hsiao**, Zhu-Yun Zheng, "Simplified Empirical Method for Predicting Liquefaction Potential and Its Application to Kaohsiung Areas in Taiwan," ICCEGE 2019: 21<sup>th</sup> International Conference on Civil Engineering and Geotechnical Engineering, Rome Italy Jul 22-23, Part VIII, pp.1031-1039, (2019).
14. Li-Jeng Huang, **Darn-Horng Hsiao**, "On the regression of the velocity distribution of debris flows using machine learning techniques," 7th International Conference on Debris-Flow Hazards Mitigation, 7th International Conference on Debris-Flow Hazards Mitigation, pp.307-714, USA (2019).
15. Vu To-Anh Phan, **Darn-Horng Hsiao**, "Undrained behavior and shear strength of clean sand containing low-plastic fines," Earth and Environmental Science 143, 012020 (2018). <https://iopscience.iop.org/article/10.1088/1755-1315/143/1/012020/meta> (SCI)
16. **Darn-Horng Hsiao**, C. S. Hsieh, L. C. Yeh, D. Y. Lin and V. T-A Phan, "A study on an instability slope in Taiwan subjected to rainfalls," Earth and Environmental Science 143, 012018 (2018). <https://iopscience.iop.org/article/10.1088/1755-1315/143/1/012018> (SCI)
17. **Darn-Horng Hsiao**, "On ultimate bearing capacity for the sands post liquefaction," The 14th National Conference on Structural Engineering/The 4th National Conference on Earthquake Engineering Taichung, Taiwan, 6-8 November, (2018).
18. **Darn-Horng Hsiao** and Vu To-Anh Phan, "Evaluation of static and dynamic properties of sand-fines mixtures through the state and equivalent state parameters," Soil Dynamics and Earthquake Engineering, 84, pp. 134-144 (2016). <https://doi.org/10.1016/j.soildyn.2016.02.006> (SCI)
19. Deng-Fong Lin, Huan-Lin Luo, **Darn-Horng Hsiao**, Chien-Ta Chen, Ming-Du Cai, "Enhancing soft subgrade soil with a sewage sludge ash/cement mixture and nano-silicon dioxide," Environ Earth Sci., 75:619 (2016). <https://doi.org/10.1007/s12665-016-5432-9> (SCI)
20. **Darn-Horng Hsiao** and Vu T.A. Phan, Chi-Chang Huang "An experimental investigation on dynamic properties of various grouted sands," Geomechanics and Engineering, Vol. 10, No. 1, pp. 77-94 (2016). <https://koreascience.kr/article/JAKO201605555186590.page> (SCI)
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25. **Darn-Horng Hsiao** and Vu T.A. Phan, "Effects of silt contents on the static and dynamic properties of sand-silt mixtures," *Geomechanics and Engineering*, Vol. 7, No. 3 297-316 (2014). <https://koreascience.kr/article/JAKO201429339407049.page> (SCI)
26. **Darn-Horng Hsiao**, To-Anh-Vu Phan and Hao-Cyun Jhong, "Dynamic Properties of Sodium Silicate-Cement Grouted Sand," *Electric Journal of geotechnical engineering*, Vol. 19, pp. 17739-17757 (2014). (EI)
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32. **Darn-Horng Hsiao**, To-Anh-Vu Phan, Chih-Chang Huang, "Liquefaction resistance of grouted sand," 2014 International Conference on Energy, Environment and Material Engineering (EEME 2014), Shenzhen, China, pp. 730-736 (2014)
33. Li-Jeng Huang, Yeong-Nain Sheen, **Darn-Horng Hsiao**, Duc-Hien Le "Steady-state Elasto-dynamic Analysis of Excavation Backfilled with Soil-based Controlled Low-strength Material Using Finite Element and Boundary Element Methods," Annual Conference on Engineering and Technology, ACEAT-105, Osaka, Japan, pp.179-191 (2014).
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35. Her-Yung Wang, **Darn-Horng Hsiao** and Shi-Yang Wang, "Properties of recycled green building materials applied in lightweight aggregate concrete," *Computers and Concrete*, Vol. 10, No. 2 95-104 (2012). DOI:10.12989/cac.2012.10.2.095 (SCI)
36. Huan-Lin Luo, **Darn-Horng Hsiao**, Deng-Fong Lin, and Cong-Kai Lin, "Cohesive Soil Stabilized Using Sewage Sludge Ash/Cement and Nano Aluminum Oxide," *International Journal of Transportation Science and Technology*, Vol. 1, No. 1, pp. 83-100 (2012). <https://doi.org/10.1260/2046-0430.1.1.83> (SCI)