

■ Contact Information

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■ Education

Chung Yuan Christian University, BS in Civil Engineering

University of Texas at Austin, MS in Civil (Geotechnical) Engineering

University of Texas at Austin, PhD in Civil (Geotechnical) Engineering

■ Area of Specialty

Geotechnical Engineering

Nondestructive Testing of Piles

Ground Improvement with Geosynthetics

Slope Monitoring

■ Recent Publication

- 1) **Lai, J.***, Lai, M. H., and Yu, C. P. (2021), "Development of a Laboratory Rotary Compactor and a Miniature Cone for the Quality Control of Backfills," accepted for publication in *ASTM Journal of Testing and Evaluation*. (SCI/EI)
- 2) **Lai, J.***, Lai, M. H., and Cheng, C. F. (2021), "Assessing the Bearing Capacity of Backfills by Stress Wave Velocity and Cone Penetration Resistance," Accepted for publication in the *Proceedings of 6th GeoChina International Conference*, Sept. 18-19, 2021, NanChang, China. (EI)
- 3) **Lai, J.*** and. Yang, B. H. (2017), "Laboratory Testing and Numerical Simulation of a Strip Footing on Geosynthetically Reinforced Loose Sand," *ASTM Journal of Testing and Evaluation*, Vol.45, No.1, pp.51-60. (SCI/EI)
- 4) Wu, S. M., **Lai, J.***, Zhang, Y. C., and Yang, B. H. (2017), "Bearing Capacity of Flexible Pavement System Reinforced with Fiberglass Geogrid," *Proceedings, 2017 International Conference on Transportation Infrastructure and Materials*, Qingdao, China, June 9–12, pp.506-513. (EI)
- 5) Yang, B. H., **Lai, J.***, Lin, J. H., and Tsai, P. H. (2016), "Simulating the Loading Behavior of Reinforced Strip Footings with a Double-Yield Soil Model," *International Journal of Geomechanics*, ASCE, Vol.16, No.1, DOI: 10.1061/(ASCE)GM.1943-5622.0000468.(SCI/EI)
- 6) **Lai, J.***, Shao-Yi Chung, Bo-Huan Yang, Shengmin Wu, and Chi-Ling Pan (2014), "Numerical Study on Enhancing the Bearing Capacity of Shallow Foundations Using Geosynthetics," *ASCE Geotechnical Special Publication*, No. 245. pp.64-70. (EI)
- 7) Liao, S. T., Yu, C. P. *, Tong, J. H., **Lai, J.**, and Chang, C. T. (2021), "Improved sonic echo method with multiple receivers and amplifier to evaluate the length of capped piles," *Int. J. of Applied Science and Engrg.*, Vol.18, No.3, #2021028.

- 8) **Lai, J.***, Yang, P. C., and Yang, B. H. (2018), “Integrity Testing of Three Model Piles with a Pile Cap,” *ASTM Journal of Testing and Evaluation*, Vol.47, No.3, JTE20180273. (SCI/EI)
- 9) **Lai, J.***, Yang, B. H., Pan, C. L., and Cheng, C. F. (2018), “Boundary Effects of Pile Cap on the Integrity Testing of Group Piles,” H. Khabbaz et al. (eds.), *New Prospects in Geotechnical Engineering Aspects of Civil Infrastructures, Sustainable Civil Infrastructures*, pp. 78-88. (EI)
- 10) **Lai, J.***, Yang, P. C., Yang, B. H., and Chang, D. W. (2017), “Integrity Testing of Model Pile with Embedded Accelerometers,” *Proceedings, 2017 International Conference on Transportation Infrastructure and Materials*, Qingdao, China, June 9–12, pp.801-808.
- 11) Yu, C. P., **Lai, J.***, Chia-Chi Cheng, C. C., and Chiang, C. H. (2013), “On Prediction of Stiffness Variation of Slender Members Using Impact Responses,” *Journal of the Chinese Institute of Engineers*, Vol.36, No.5, pp.627-637. (SCI/EI)