



CURRICULUM VITAE



DR. Duaa Abdulrazzaq Falih AL-Jeznawi

Department of Civil Engineering. Faculty of Engineering. Universiti Putra Malaysia. 43400 Serdang. Selangor.

Tel. : +60176189734
E-mail : duaa@upm.edu.my
ORCID : <https://orcid.org/0000-0002-6134-4638>
Google Scholar : Duaa Al-jeznawi (H-index = 13)
ResearchGate : Duaa Al-Jeznawi
Website : -

Education

- Ph.D. Civil Engineering, Geotechnical Engineering, 2024, Universiti Teknologi MARA, Shah Alam, Malaysia
- M.Sc. Civil Engineering, Geotechnical Engineering, 2015, Texas A&M University, College Station, TX, USA
- B. Sc. Civil Engineering, 2011, Al-Nahrain University, Baghdad, Iraq

Research Interest

- Soil-pile behavior under static and seismic loads
- Unsaturated soils
- Ground improvement
- Advanced foundations
- Combines computer modelling, laboratory testing, data analysis, and AI tools to develop practical, resilient solutions for civil infrastructure

Appointments

- | | |
|--|----------------|
| • Senior Lecturer, Dept. of Civil Engineering, UPM | 2026 – to date |
| • Lecturer, Dept. Civil Engineering, Al-Nahrain University, Iraq | 2016 – 2025 |
| • Lecturer, Dept. Civil Engineering, Al-Esraa University, Iraq | 2015 – 2016 |

Publications

1. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, Abbas, H.A., Rasheed, S.E., Bernardo, L.F.A., and Pinto, H.A.S. A Hybrid Data-Driven Approach for Seismic Response Prediction of Tapered Piles Using RBF Interpolation. *Transportation Infrastructure Geotechnology*. 2026. 13(4). (Scopus).
2. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, Nasser, R.T., Bernardo, L.F.A., Jais, I.B.M., and Pinto, H.A.S. Shear Behavior of Geopolymer Concrete Beams Under Monotonic and Cyclic Loading. *Sustainability*. 2026. 18(5), 2209. (Scopus).
3. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, Nasser, R.T., Bernardo, L.F.A., and Pinto, H.A.S. Flexural Performance of Geopolymer-Reinforced Concrete Beams Under Monotonic and Cyclic Loading: Experimental Investigation. *Buildings*. 2026. 16, 1. (Scopus).
4. **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Bernardo, L.F.A., and Abbas, H.A. Modeling and Mechanisms of Desiccation-Induced Cracking and Curling in Clay Soils: A State-of-the-Art Review. *Geotechnical and Geological Engineering*. 2025. 43, 342. (Scopus).
5. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, Yang, T.Y., Bernardo, L.F.A., and Andrade, J.M.d.A. Enhancing Structural Resilience for Sustainable Infrastructure: A Global Review of Seismic Isolation and Energy Dissipation Practices. *Sustainability*. 2025. 17, 7314. (Scopus).
6. Abbas, H.A., Mohamed, Z., Abdul Kudus, S., **Al-Jeznawi, D.**, and Al-Riahi, S.M.H. Behavior and mechanical characteristics anisotropy of Weathered Shale, Sandstone, and composite specimens under unconfined and confined compressive stress. *Engineering Geology*. 2025. 354, 108195. (Scopus).
7. Pinto, H.A.S., Andres, M.D.F., da Conceição Oliveira, T.S., Bernardo, L.F.A., Nepomuceno, M.C.S., Andrade, J.M.d.A., Dulaimi, A., Al-Janabi, M.A.Q., and **Al-Jeznawi, D.** A review on BIM's contribution to an efficient RFI management in complex geotechnical and construction projects. *Discover Civil Engineering*. 2026. 3(1), 156. (Scopus).
8. Abbas, H.A., Abbood, H.H., Al-Riahi, S.M.H., **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Abdul Kudus, S., and Fattah, M.Y. Machine learning and regression-based approaches for UCS estimation in weathered sandstone. *International Journal of Applied Science and Engineering*. 2026. 23(2), 2025317. (Scopus).
9. **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Imran, H., Bernardo, L.F.A., and Henedy, S.N. Seismic Response of Piled Foundations: A State-of-the-Art Review. *Tikrit Journal of Engineering Sciences*. 2025. 32(2), 1–17. (Scopus).
10. **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Sadik, L., Bernardo, L.F.A., and Andrade, J.M.d.A. Predicting Seismic-Induced Settlement of Pipelines Buried in Sandy Soil Reinforced with Concrete and FRP Micropiles: A Genetic Programming Approach. *Journal of Composites Science*. 2025. 9(5), 207. (Scopus).
11. Sadik, S., Samui, P., Keawsawasvong, S., **Al-Jeznawi, D.**, and Samui, R. Harnessing Metaheuristics and Probabilistic Machine Learning for Uncertainty-Aware Bearing Capacity Estimation of Shallow Foundations. *Transportation Infrastructure Geotechnology*. 2025. 12, 53. (Scopus).
12. Pinto, H.A.S., Andres, M.D.F., da Conceição Oliveira, T.S., and **Al-Jeznawi, D.** A review on BIM's contribution to an efficient RFI management in complex geotechnical and construction projects. *Discover Civil Engineering*. 2026. 3, 156. (Scopus).
13. Abbas, H.A., Abbood, H.H., Al-Riahi, S.M.H., **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Abdul Kudus, S., and Fattah, M.Y. Machine learning and regression-based approaches for UCS estimation in weathered sandstone. *International Journal of Applied Science and Engineering*. 2026. 23(2), 317. (Scopus).
14. **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Shafiqu, Q.S.M., Jasim, T.N., Güler, E., Bernardo, L.F.A., and Andrade, J.M.d.A. Seismic Performance Evaluation of Pipelines Buried in Sandy Soils Reinforced with FRP Micropiles: A Numerical Study. *Buildings*. 2024. 14, 3044. (Scopus).

-
15. **Al-Jeznawi, D.**, Sadik, L., Alzabeebee, S., Al-Janabi, M.A.Q., and Keawsawasvong, S. Novel Explicit Models for Assessing the Frictional Resistance of Pipe Piles Subjected to Seismic Effects. *Journal of Safety Science and Resilience*. 2024. (Scopus).
 16. **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Albusoda, B.S., Hajjat, J., Bernardo, L.F.A., and Andrade, J.M.A. Response of group piles subjected to coupled vertical-eccentric lateral-seismic loads. *Results in Engineering*. 2024. 23. (Scopus).
 17. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, Bernardo, L.F.A., Sadik, L., and Andrade, J.M.A. Seismic Response Assessment of Tapered Piles in Sandy Soils: A Numerical Investigation. *Results in Engineering*. 2024. 24, 102975. (Scopus).
 18. Sa'ur, R.H., **Al-Jeznawi, D.**, Alzabeebee, S., Bernardo, L.F.A., and Keawsawasvong, S. Geotechnical and Geophysical Assessment of the Soil Layers of the Missan Combined-Cycle Power Plant Project. *CivilEng*. 2024. 5, 717-735. (Scopus).
 19. Sadik, L., **Al-Jeznawi, D.**, Alzabeebee, S., Al-Janabi, M.A.Q., and Keawsawasvong, S. Prediction of Seismic-Induced Bending Moment and Lateral Displacement in Closed and Open-Ended Pipe Piles: A Genetic Programming Approach. *Artificial Intelligence in Geosciences*. 2024. 5, 100076. (Scopus).
 20. Sadik, L., **Al-Jeznawi, D.**, Alzabeebee, S., Al-Janabi, M.A.Q., and Keawsawasvong, S. An Explicit Model for Soil Resilient Modulus Incorporating Freezing–Thawing Cycles Through Offspring Selection Genetic Algorithm (OSGA). *Transportation Infrastructure Geotechnology*. 2024. (Scopus).
 21. Al-Janabi, M.A.Q., **Al-Jeznawi, D.**, and Bernardo, L.F.A. Modeling Techniques, Seismic Performance, and the Application of Rocking Shallow Foundations: A Review. *CivilEng*. 2024. 5, 327-342. (Scopus).
 22. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., Alzabeebee, S., Keawsawasvong, S., and Khalid, N. Design charts and equations of the frictional resistance of single pipe pile under static and seismic loads. *International Journal of Computational Materials Science and Engineering*. 2024. 13(03), 2350027. (Scopus).
 23. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Al-Janabi, M.A.Q., Alzabeebee, S., Albusoda, B.S., and Keawsawasvong, S. Scaling effects on the seismic response of a closed-end pipe pile embedded in dry and saturated coarse grain soils. *International Journal of Computational Materials Science and Engineering*. 2024. 13(02), 2350023. (Scopus).
 24. Rasheed, S.E., **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., and Bernardo, L.F.A. Data-Driven Prediction of Maximum Settlement in Pipe Piles under Seismic Loads. *Journal of Marine Science and Engineering*. 2024. 12, 274. (Scopus).
 25. Abbas, H.A., **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., Bernardo, L.F.A., and Jacinto, M.A.S.C. Exploring Shear Wave Velocity—NSPT Correlations for Geotechnical Site Characterization: A Review. *CivilEng*. 2024. 5, 119-135. (Scopus).
 26. **Al-Jeznawi, D.**, Sadik, L., Al-Janabi, M.A.Q., et al. Developing Vs-NSPT Prediction Models Using Bayesian Framework. *Transportation Infrastructure Geotechnology*. 2023. (Scopus).
 27. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., and Khalid, N. Numerical Assessment of Pipe Pile Axial Response under Seismic Excitation. *Journal of Engineering*. 2023. 29(10), 1–11. (Scopus).
 28. **Al-Jeznawi, D.**, Jais, I.B.M., Albusoda, B.S., et al. Investigation of the Scale Effect on the Static and Seismic Response of an Opened Ended Pipe Pile. *Transportation Infrastructure Geotechnology*. 2023. (Scopus).
 29. Imran, H., **Al-Jeznawi, D.**, Al-Janabi, M.A.Q., and Bernardo, L.F.A. Assessment of Soil–Structure Interaction Approaches in Mechanically Stabilized Earth Retaining Walls: A Review. *CivilEng*. 2023. 4, 982-999. (Scopus).
 30. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., Forcellini, D., et al. Three-Dimensional Finite Element Analysis of the Effect of Soil Liquefaction on the Seismic Response of a Single
-

-
- Pile. *International Journal of Computational Materials Science and Engineering*. 2023. (Scopus).
31. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., and Khalid, N. Numerical Assessment of Pipe Pile Response under Seismic Excitation. *Al-Nahrain Journal for Engineering Sciences*. 2023. 26(2), 96-101. (Scopus).
 32. **Al-Jeznawi, D.**, Khatti, J., Al-Janabi, M.A.Q., Grover, K.S., Mohamed Jais, I.B., Albusoda, B.S., and Khalid, N. Seismic performance assessment of single pipe piles using three-dimensional finite element modeling considering different parameters. *Earthquakes and Structures*. 2023. 24(6), 455-475. (Scopus).
 33. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., Alzabeebee, S., Al-Janabi, M.A.Q., and Keawsawasvong, S. Response of Pipe Piles Embedded in Sandy Soils Under Seismic Loads. *Transportation Infrastructure Geotechnology*. 2023. (Scopus).
 34. Zeini, H.A., **Al-Jeznawi, D.**, Imran, H., Bernardo, L.F.A., Al-Khafaji, Z., and Ostrowski, K.A. Random Forest Algorithm for the Strength Prediction of Geopolymer Stabilized Clayey Soil. *Sustainability*. 2023. 15, 1408. (Scopus).
 35. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., Alzabeebee, S., Keawsawasvong, S., and Khalid, N. Numerical Study of the Seismic Response of Closed-Ended Pipe Pile in Cohesionless Soils. *Transportation Infrastructure Geotechnology*. 2024. 11, 63–89. (Scopus).
 36. **Al-Jeznawi, D.**, Alzabeebee, S., Mohammed Shafiqu, Q.S., et al. Analysis of Slope Stabilized with Piles Under Earthquake Excitation. *Transportation Infrastructure Geotechnology*. 2024. 11, 197–215. (Scopus).
 37. **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., and Khalid, N. Numerical modeling of single closed and open-ended pipe pile embedded in dry soil layers under coupled static and dynamic loadings. *Journal of the Mechanical Behavior of Materials*. 2022. 31(1), 587-594. (Scopus).
 38. **Al-Jeznawi, D.**, Mohamed Jais, I.B., and Albusoda, B.S. The effect of model scale, acceleration history, and soil condition on closed-ended pipe pile response under coupled static-dynamic loads. *International Journal of Applied Science and Engineering*. 2022. 19(2). (Scopus).
 39. **Al-Jeznawi, D.**, Mohamed Jais, I.B., and Albusoda, B.S. A soil-pile response under coupled static-dynamic loadings in terms of kinematic interaction. *Civil and Environmental Engineering*. 2022. 18(1), 96-103. (Scopus).
 40. • **Al-Jeznawi, D.**, Mohamed Jais, I.B., Albusoda, B.S., and Khalid, N. The slenderness ratio effect on the response of closed-end pipe piles in liquefied and non-liquefied soil layers under coupled static-seismic loading. *Journal of the Mechanical Behavior of Materials*. 2022. 31(1), 83-89. (Scopus).
 41. **Al-Jeznawi, D.**, and Al-Azzawi, A.A. The Behavior of Strip Footing Resting on Soil Strengthened with Geogrid. *Civil and Environmental Engineering*. 2021. 597-609. (Scopus).
 42. **Al-Jeznawi, D.**, Jasim, T.N., and Mohammed Shafiqu, Q.S. Evaluating the Use of Polypropylene Polymer in Enhancing the Properties of Swelling Clayey Soil. *IOP Conference Series: Earth and Environmental Science*. 2021. 856. (Scopus).
 43. Al-Taie, A., **Al-Jeznawi, D.**, and Faraj, N. Engineering Characterization of Quaternary Sandy Soil in the Mesopotamia Plain. *International Review of Civil Engineering*. 2021. 12(1). (Scopus).
 44. **Al-Jeznawi, D.**, Sanchez, M., and Al-Taie, A.J. Using Image Analysis Technique to Study the Effect of Boundary and Environment Conditions on Soil Cracking Mechanism. *Geotechnical and Geological Engineering*. 2021. 39, 25–36. (Scopus).
 45. Maedo, M., Sánchez, M., **Al-Jeznawi, D.**, et al. Analysis of soil drying incorporating a constitutive model for curling. *Acta Geotechnica*. 2020. 15, 2619–2635. (Scopus).
 46. **Al-Jeznawi, D.**, Mohammed Shafiqu, Q.S., and Sa'ur, R.H. Properties of swelling soil improved using a mixture of polyethylene with silica fume and cement kiln dust. *AIP Conference Proceedings*. 2020. 2213, 020170. (Scopus).
-

-
47. Aidan, I.A., **Al-Jeznawi, D.**, and Al-Zwainy, F.M.S. Predicting Earned Value Indexes in Residential Complexes' Construction Projects Using Artificial Neural Network Model. International Journal of Intelligent Engineering and Systems. 2020. 13(4). (Scopus).
 48. Hajjat, J., **Al-Jeznawi, D.**, Sánchez, M., et al. Effects of Drying and Soil-Base Interface on the Behavior of an Expansive Soil Mixture. Geotechnical and Geological Engineering. 2020. 38, 4637–4649. (Scopus).
 49. **Al-Jeznawi, D.**, Sanchez, M., Al-Taie, A.J., and Zielinski, M. Effect of Wetting-Drying Cycles on Desiccation Crack Pattern and Soil Behavior. Key Engineering Materials. 2020. 857, 188–94. (Scopus).
 50. Al-Jeznawi, D., Sanchez, M., Al-Taie, A.J., and Zielinski, M. Experimental Studies on Curling Development of Artificial Soils. Journal of Rock Mechanics and Geotechnical Engineering. 2019. 11(6), 1264-1273. (Scopus).

Conference Proceedings/Academic Talks

- **Duaa Al-Jeznawi**, Ismacahyadi Bagus Mohamed Jais, Bushra S. Albusoda, Khalid Norazlan. The slenderness ratio effect on the response of closed-end pipe piles in liquefied and non-liquefied soil layers under coupled static-seismic loading. Third International Conference on Geotechnical Engineering-Iraq, 29-31 of May 2022.
- **Duaa Al-Jeznawi**, Ismacahyadi Bagus Mohamed Jais, Bushra S. Albusoda, Khalid Norazlan. Numerical modeling of single closed and open-ended pipe pile embedded in dry soil layers under coupled static and dynamic loadings. Third International Conference on Geotechnical Engineering-Iraq, 29-31 of May 2022.

Professional Services (Journal Reviewer, editorial works, etc.)

- **Editorial board member/associate editor**

1- Civil and Geoengineering Letters	2025 to present
2- Engineering Design and Construction Management	2026 to present
 - **Journal reviewer**
 - Journal of Rock Mechanics and Geotechnical Engineering
 - Engineering Structures
 - Case Studies in Construction Materials
 - Measurement
 - Physics and Chemistry of the Earth
 - Sensors
 - Water
 - Processes
 - Sustainability
 - Geotechnical and Geological Engineering
 - Innovative Infrastructure Solutions
 - Symmetry
 - Geosciences
 - Frontiers in Earth Science
 - Journal of Geophysical Research: Planets
 - Indian Geotechnical Journal
 - Journal of Pipeline Systems Engineering and Practice
 - Computers and Concrete
-

Discover Civil Engineering
Journal of Safety and Sustainability

- **Conference reviewer**

- Third International Conference on Geotechnical Engineering-Iraq, 29-31 of May 2022
-

Teaching Experience

- Foundation Engineering
 - Soil Mechanics
 - Computer Programming
-