Curriculum Vitae

1 Name and academic rank

Dr. Lina A. Jaber, Associate Professor (full-time), Faculty of Engineering.

Beirut Arab University, Department of Civil and Environmental Engineering, Debbieh, Lebanon.

Email: l.jaber@bau.edu.lb | Telephone: 07 985080, ext. 3472.

BAU profile : https://bau.edu.lb/staff/Engineering/Lina%20-Jaber/103

ORCID: https://orcid.org/0000-0001-8088-7139

Google Scholar: https://scholar.google.com/citations?user=fEWedd4AAAAJ

ResearchGate: https://www.researchgate.net/profile/Lina-Jaber-3

2 Education

- Ph.D. in Civil Engineering (Geotechnical Engineering), Beirut Arab University, Debbieh, Lebanon, 2018. Thesis title: “Effect of the Soil-Structure Interaction on the Dynamic Behavior of Multi-Story Buildings”.
- M.S. in Civil Engineering (Geotechnical Engineering), Beirut Arab University, Debbieh, Lebanon, 2013. Thesis title: “Numerical Finite Element Modeling of the effect of deep Excavations on Near Surface Structures in Urban Area”.
- B.E. in Civil Engineering, Beirut Arab University, Beirut, Lebanon, 1997.

3 Academic experience

- Associate Professor, Department of Civil and Environmental Engineering, Beirut Arab University, Debbieh, Lebanon, 2025–present (full-time).
- Assistant Professor, Department of Civil and Environmental Engineering, Beirut Arab University, Debbieh, Lebanon; appointed 2018 (full-time).
- Lecturer, Department of Civil and Environmental Engineering, Beirut Arab University, Debbieh, Lebanon, 2013–2018 (full-time).
- Teaching Assistant, Department of Civil and Environmental Engineering, Beirut Arab University, Lebanon, 1997–2000.

4 Administrative and professional experience

- Director of the Engineering Consultancy Unit (ECU), Faculty of Engineering, Beirut Arab University, 2025–present.
- Supervised and delivered training sessions for civil engineering students and professional engineers on the use of ROBOT and ETABS at Beirut Arab University, (ECTU), 1997–2012.
- Supervised and delivered training sessions for senior civil engineering students and professional engineers on the use of ROBOT and ETABS at the Lebanese Syndicate of Engineering, 1997–2012, and at BAU from 2013-present.
- Supervise the Soil Laboratory at Beirut Arab University, 2013–present.

5 Professional memberships and editorial service

Professional memberships

- Member of the Makassed Graduates Alumni Association (1991).
- Member of the Lebanese Syndicate of Engineering (1997).
- Member of the Beirut Arab University Alumni Society (1997).

Editorial and reviewing service

- Section Editor, Steps for Civil, Constructions and Environmental Engineering (SCCEE), 23 September 2025–present.
- Editorial Board Member, Steps for Civil, Constructions and Environmental Engineering (SCCEE).
- Trusted Reviewer, Springer Nature Reviewer Communities.

6 Academic activities

Research interests

Geotechnical engineering, soil–structure interaction, seismic response, soil mechanics and soil stabilization, foundation engineering, ground improvement, numerical modelling, and sustainable construction materials, including recycled materials and industrial by-products.

Teaching

Engineering Geology; Soil Mechanics; Foundation Engineering; Retaining Structures; Soil Improvement (2013–present); Soil and Site Improvement (2022–present); Soil Mechanics and Foundations; Material Properties and Testing; Advanced Soil (2023–present); Disaster Engineering (2024–present).

University and faculty service

- Student Affairs Committee Member, 2013–2018.
- Head of the Student Activities Committee, 2014–2016.
- Website Committee Member, 2017–2022.
- Laboratory Committee Member, 2019–2020.
- Quality Assurance Committee Member, 2020–present.
- Student orientation activities, 2017–present.
- Secretary of the Library Committee, 2023–2024.
- Representative of the Faculty of Engineering on the University Postgraduate Committee, 2022–present.
- Head of the Faculty Postgraduate Committee, 2024–present.
- Member of the Strategic Plan Committee, 2025–present.

7 Publications

- Ayash, H. A., Alhakim, G., & Jaber, L. (2026). Improvement of sandy soil behavior by using PET plastic wastes, CKD, and cement. *Journal of GeoEngineering, 21*(1), 11–23. https://doi.org/10.6310/jog.202603_21(1).0002
- Jaber, L., Balhas, R., El Ahmad, M., & Alhakim, G. (2025). Soil stabilization utilizing an optimized combination of polyurethane foam and cement. *International Journal of Geo-Engineering, 16*, Article 20. https://doi.org/10.1186/s40703-025-00246-4
- Alhakim, G., & Jaber, L. (2025). Mechanical behaviour of polypropylene–sand composites reinforced with natural fibres. *Proceedings of the Institution of Civil Engineers – Ground Improvement, 178*(5), 342–355. https://doi.org/10.1680/jgrim.24.00098
- Zein, Z., Jaber, L., & Jahami, A. (2025). Comprehensive review of classes F and C fly ash effects on clayey soils: Geotechnical predictive correlations. *Periodica Polytechnica Civil Engineering, 69*(3), 823–837. https://doi.org/10.3311/PPci.37980
- Aouf, G., Alhakim, G., & Jaber, L. (2024). Utilizing recycled rubber and municipal waste incineration fly ash in cement-stabilized clayey soils. *Civil Engineering Journal, 10*(11), 3721–3737. https://doi.org/10.28991/CEJ-2024-010-11-017
- Al Bitar, M., Alhakim, G., & Jaber, L. (2024). Using fly ash-plastic mesh bags wastes mixture as a recoverable resource for soil stabilization. *International Journal of Geotechnical Engineering, 18*(3), 316–331. https://doi.org/10.1080/19386362.2024.2345460
- Fawaz, A., Alhakim, G., & Jaber, L. (2024). The stabilisation of clayey soil by using sawdust and sawdust ash. *Environmental Technology, 45*(26), 5712–5722. https://doi.org/10.1080/09593330.2024.2304674
- Alhakim, G., Baalbaki, O., & Jaber, L. (2024). Compaction and shear behaviors of sandy soil treated with lime and metakaolin. *Geotechnical and Geological Engineering, 42*(1), 79–95. https://doi.org/10.1007/s10706-023-02555-w
- Jahami, A., Halawi, J., Temsah, Y., & Jaber, L. (2023). Assessment of soil–structure interaction effects on the Beirut Port silos due to the 4 August 2020 explosion: A coupled Eulerian–Lagrangian approach. *Infrastructures, 8*(10), Article 147. https://doi.org/10.3390/infrastructures8100147
- Jaber, L., Mezeh, R., Zein, Z., Azab, M., & Sadek, M. (2023). Nonlinear numerical analysis of influence of pile inclination on the seismic response of soil-pile-structure system. *Geomechanics and Engineering, 34*(4), 437–447. https://doi.org/10.12989/gae.2023.34.4.437
- Mekdash, H., Jaber, L., Temsah, Y., & Sadek, M. (2023). Comparative analysis of anchored and pre-stressed pile walls: A case study of a water front project in Beirut, Lebanon. *Materials Today: Proceedings*. Advance online publication. https://doi.org/10.1016/j.matpr.2023.03.565

- Alhakim, G., Núñez-Temes, C., Ortiz-Sanz, J., Arza-García, M., Jaber, L., & Gil-Docampo, M. L. (2023). Experimental application and accuracy assessment of 2D-DIC in meso-direct-shear test of sandy soil. *Measurement, 211*, Article 112645. https://doi.org/10.1016/j.measurement.2023.112645
- Alhakim, G., Jaber, L., Baalbaki, O., & Barraj, F. (2023). Utilization of fan palm, date palm, and Phragmites australis fibers for improving the mechanical behavior of sandy soil. *Geomechanics for Energy and the Environment, 33*, Article 100427. https://doi.org/10.1016/j.gete.2022.100427
- Alhakim, G., Baalbaki, O., & Jaber, L. (2022). Effects of incorporation of cement and metakaolin on the mechanical properties of poorly graded sand. *Arabian Journal of Geosciences, 15*(24), Article 1777. https://doi.org/10.1007/s12517-022-11080-8
- Mekdash, H., Jaber, L., Temsah, Y., & Sadek, M. (2022). Reinforcement of concrete shoring systems by prestressing. *Advances in Civil Engineering, 2022*, Article 2383781. https://doi.org/10.1155/2022/2383781
- Zein, Z. H., Jaber, L., & Temsah, Y. (2021). Dynamic soil-structure interaction analysis: Detecting the reliability of modelling the piles as a plate element for a multistory building resting on deep foundation. *BAU Journal – Science and Technology, 2*(2), Article 8. https://doi.org/10.54729/2959-331X.1051
- Mekdash, H., Jaber, L., & Temsah, Y. (2021). Cantilever shoring piles with prestressing strands: An experimental approach. *International Journal of Structural and Construction Engineering, 15*(6), 296–300.
- Jaber, L., Temsah, Y., El-Mossallamy, Y., & Hage Chehade, F. (2019). The effect of underground stories on the dynamic response of high-rise buildings. In H. Rodrigues & A. Elnashai (Eds.), *Advances and challenges in structural engineering: Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018—The official international congress of the Soil-Structure Interaction Group in Egypt (SSIGE)* (pp. 209–218). Springer. https://doi.org/10.1007/978-3-030-01932-7_17
- Jaber, L., Temsah, Y., Hage Chehade, F., & El-Mossallamy, Y. (2018). Effect of soil–structure interaction constitutive models on dynamic response of multi-story buildings. *Journal of Engineering Science and Technology Review, 11*(3), 56–60. https://doi.org/10.25103/jestr.113.08

8 Professional development activities

- Participated in a three-day workshop titled “Communication and Presentation Skills for Academic Excellence,” organized by the Human Resources Department at Beirut Arab University, 25–27 August 2025.
- Attended the conference “Comment accompagner les étudiants dans l’usage éclairé des outils de l’intelligence artificielle pour leurs travaux de recherche” at USJ, 6 May 2025.
- Participated in the BAU workshop “The Future of Academia in Light of Artificial Intelligence,” 26 April 2024.
- Attended the webinar “Clay Building in Contemporary Architecture,” organized by the Austrian Embassy, 24 January 2024.

- Participated in a USAID-organized event on enhancing graduate employability in Lebanon, held at NDU Louaize–Zouk Mosbeh, 18 January 2024.
- Attended the "Research Talks" event at Beirut Arab University, 12 January 2024.
- Completed a five-day training program in instructional design and e-learning, 14–18 November 2022. The program was organized by the Universities Association of Lebanon in collaboration with the Directorate General of Higher Education, UNESCO Beirut Office, the Connected Learning in Crisis Consortium, and UNHCR.
- Delivered a speech for International Women's Day during an event organized by the ASCE Chapter at Beirut Arab University, featuring women engineers from different countries, 8 March 2021.
- Presented at "The Second Dardacha Talks for Science Detox," organized by the National Observatory for Women in Research, the National Council for Scientific Research, Beirut Arab University, and the Lebanese National Commission for UNESCO, 14 October 2019.
- Participated in the 1st Academia–Industry Workshop at IUL, organized in collaboration with the Order of Engineers and Architects under the theme "Public Safety Culture: Education, Implementation and Control," 10 April 2019.
- Attended the seminar "Les Eurocodes et l'Elaboration des Annexes Nationales Libanais" at the Order of Engineers and Architects, 21 February 2019.
- Delivered a lecture titled "Soil–Structure Interaction Behavior under Earthquake Effects" at the conference "الزلازل في العالم ولبنان في العقد الأخير بين التاريخ وحقيقة الواقع", organized by the Order of Engineers and Architects, 28 November 2018.
- Completed the six-session Teaching Skills Workshop delivered by Dr. Wissam Chibani at BAU, Beirut Campus.
- Attended "Scientific Research and Higher Education: Challenges and Perspectives" at UNESCO Palace.

9 Languages

Arabic, French and English.