



1. Name and Academic Rank: Dr. Wael Slika, Assistant Professor, full-time, Faculty of Engineering

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2. Education: Degrees, Discipline, Institution and Date

- Ph.D. in Civil Engineering, American University of Beirut, Beirut, Lebanon, 2017.
- Bachelor of Engineering in Civil Engineering, with distinction, American University of Beirut, Beirut, Lebanon, 2012.

3. Work Experience

Academic experience

- Beirut Arab University: Assistant Professor, September 2017-present, full-time.
- American University of Beirut: Teaching Assistant and Research Assistant, 2012-2017.

Non-academic experience

- More than ten years of engineering consultancy experience in structural design and analysis, concrete technology, condition assessment, and non-destructive testing.
- Professional work includes durability and service-life studies, thermal control of mass concrete, life-cycle cost and maintenance evaluation, probabilistic modelling, numerical simulation, and model calibration for building and infrastructure projects.
- SETS, Beirut: part-time Transportation Engineer, 2011-2012; road and intersection design and feasibility studies.

4. Certification or Professional Registration

- Civil Engineer, member of the Order of Engineers & Architects of Beirut.
- Member, American Society of Civil Engineers (ASCE).

5. Honors and Awards

- Abdul Hadi Debs Award for research and academic achievements, American University of Beirut, 2017.
- Conseil National de la Recherche Scientifique (CNRS) award for doctoral support, 2015-2017.
- Dean's Fellowship, American University of Beirut, 2012-2017.
- Bachelor of Engineering with distinction, American University of Beirut, 2012.



6. National Research Funds

Joint CNRS-BAU research project

- Project: A sustainable structural health-monitoring framework for service-life prediction of corroded RC structures using induced vibration-response analysis.
- Investigators: Prof. Adel Elkordi and Dr. Wael Slika.
- Funding: LBP 16,000,000 in total, contributed equally by CNRS and BAU (approximately US\$10,561 at LBP 1,515 per US dollar).
- Period: Two-year award from 14 August 2018, extended by one year; final report submitted in August 2021.
- Role: Developed the research concept and funding proposal and led scientific implementation and day-to-day project management.

7. Service Activities

Teaching and postgraduate supervision

- Undergraduate teaching: Mechanics of Materials; Structures I and II; Advanced Structural Analysis; Reinforced Concrete I and II; and Non-Destructive Concrete Testing.
- Postgraduate teaching: Mathematical Programming; Finite Element Method; Stability and Plastic Analysis of Structures; and Advanced Finite Element Method.
- Developed and first delivered Non-Destructive Concrete Testing (CVLE 510), Mathematical Programming (CVLE 721), and Advanced Finite Element Method (CVLE 720).
- Supervision of undergraduate final-year projects and internships, and academic advising at undergraduate and postgraduate levels.
- Completed doctoral supervision: Amthal Mostafa Hakim (2022), co-supervisor, on health monitoring and service-life prediction of corroded reinforced concrete structures.
- Ongoing master's supervision: Jad Malek Fawaz, on adaptive thermal control of mass concrete using controlled water-curing temperature.
- Completed master's supervision: Layla Shrayteh (2025), Hussein Mahmoud (2024), Rana al Bast (2023), and Rawan Machmouchi (2021); main supervisor.
- Postgraduate examination committees: seven master's theses and one doctoral thesis, including supervised or co-supervised candidates.

Academic leadership and accreditation

- Faculty Quality Assurance Unit and Engineering Day / Job Fair Committee member (2026-2027); Strategic Plan Committee member (2025-2026).
- Head of the Faculty Quality Assurance Unit (2025-2026); member of the University Quality Assurance Committee. Coordinated Faculty preparations, evidence and presentation for the 2025 University QA review visit.



- Coordinated preparation and edited the Faculty of Engineering Handbook, Volume II, for all ten programmes (2024-2025).
- Edited the Civil Engineering ABET self-study report (2017), coordinated evidence for the first visit (2018), and authored Criterion 4 - Continuous Improvement for the 2018 and 2024 reports.
- Developed assessment rubrics and a digital final-year-project workbook linking individual grades with student-outcome attainment; led assessment data compilation and analysis and supported assessment digitisation.
- BAU institutional representative at the ABET July 2018 Commission Meeting, Baltimore.
- Department Council secretary (2017-2018 and 2018-2019); Department and Faculty Council service, Student Affairs, and course-file and assessment coordination.

Professional service and community engagement

- Member of the ASCE Lebanon Section Extended Board (2024-present); ASCE BAU Student Chapter Faculty Advisor (2021-present), coordinating more than thirty technical, training and community activities with student committees.
- Contributed to the BAU Hospital design-criteria review at the Dean's request (2026).
- Member of the three-person inspection and damage-assessment team for the two Debbieh Campus student dormitories following the 2023 earthquake.
- Supported the ASCE BAU Student Chapter proposal and volunteered with students in the Rebuilding Beirut Hand in Hand initiative (2022), in collaboration with the ASCE Lebanon Section. The chapter received an ASCE Letter of Honorable Mention in 2023.
- ASCE BAU Facebook page administrator, communicating chapter activities and community initiatives; invited alumnus at a student-achievement ceremony in Hasbaya (2017).

8. Principal Publications and Presentations

8.1 Journal Publications

- **Slika, W., and Wehbi, N.** (2026). Adaptive Feedback-Based Thermal Management of Mass High-Performance Concrete: Field Validation and Performance Assessment on a Raft Foundation. *Journal of Building Engineering*, 132, Article 117468. DOI: 10.1016/j.jobbe.2026.117468
- **Slika, W.** (2026). A framework for determining field-calibrated surface chloride concentration distributions for prediction of initiation of reinforcement corrosion in reinforced concrete (RC) structures exposed to hot-arid Gulf environments. *Structural Concrete*. First published online 28 August 2026. DOI: 10.1002/suco.70762



- **Slika, W.**, Fawaz, J., and Wehbi, N. (2026). Output-only vibration-based identification of dynamic properties in corroded RC beams: influence of steel configuration and correlation with initial stiffness. *Journal of Umm Al-Qura University for Engineering and Architecture*. Published online 22 January 2026. DOI: 10.1007/s43995-026-00289-3
- Hakim, A., **Slika, W.**, Machmouchi, R., and Elkordi, A. (2023). Numerical Approach to Simulate the Effect of Corrosion Damage on the Natural Frequency of Reinforced Concrete Structures. *Structural Durability & Health Monitoring*, 17(3), 175-194. DOI: 10.32604/sdhm.2022.023027
- Mashmoushy, R. M., **Slika, W.**, and Elkordi, A. (2021). A Novel Probabilistic Framework of RC Corroded Structures Under Dynamic Loading. *BAU Journal - Science and Technology*, 2(2), Article 7. DOI: 10.54729/2706-784X.1041
- Bichara, L., Saad, G., and **Slika, W.** (2019). Probabilistic identification of the effects of corrosion propagation on reinforced concrete structures via deflection and crack width measurements. *Materials and Structures*, 52, Article 89. DOI: 10.1617/s11527-019-1389-y
- **Slika, W.**, Masri, A., and Baalbaki, O. (2019). Flexural Testing of Various Composite-Beams under Quasi-Static Loads. *BAU Journal - Science and Technology*, 1(1), Article 3. DOI: 10.54729/2959-331X.1004
- Nasr, D. E., **Slika, W. G.**, and Saad, G. A. (2018). Uncertainty quantification for structural health monitoring applications. *Smart Structures and Systems*, 22(4), 399-411. DOI: 10.12989/sss.2018.22.4.399
- **Slika, W.**, and Saad, G. (2018). Probabilistic Identification of Chloride Ingress in Reinforced Concrete Structures: Polynomial Chaos Kalman Filter Approach with Experimental Verification. *Journal of Engineering Mechanics*, 144(6), 04018037. DOI: 10.1061/(ASCE)EM.1943-7889.0001463
- **Slika, W.**, and Saad, G. (2017). A practical polynomial chaos Kalman filter implementation using nonlinear error projection on a reduced polynomial chaos expansion. *International Journal for Numerical Methods in Engineering*, 112(12), 1869-1885. DOI: 10.1002/nme.5586
- Saad, W., **Slika, W.**, Mawla, Z., and Saad, G. (2017). Drug product immobilization in recycled polyethylene/polypropylene reclaimed from municipal solid waste: experimental and numerical assessment. *Environmental Technology*, 38(23), 3064-3073. DOI: 10.1080/09593330.2017.1288271
- **Slika, W.**, and Saad, G. (2016). An Ensemble Kalman Filter approach for service life prediction of reinforced concrete structures subject to chloride-induced corrosion. *Construction and Building Materials*, 115, 132-142. DOI: 10.1016/j.conbuildmat.2016.04.025



8.2 Conference Proceedings

- Hakim, A., **Slika, W.**, El Kordi, A., and Biqai, A. (2022). A Comparative Study between the Analytical and Experimental Deflection Response of Corroded Simply Supported Reinforced Concrete Beams. 7th World Congress on Civil, Structural, and Environmental Engineering (CSEE'22), Lisbon, Portugal (virtual conference), 10-12 April. Paper ICSECT 157. DOI: 10.11159/icsect22.157
- **Slika, W. G.**, and Jaafar, F. I. (2019). An Ensemble Kalman Filter Approach for Estimating Site Specific Earthquake Response. COMPDYN 2019: 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Crete, Greece, 24-26 June, pp. 4267-4280. DOI: 10.7712/120119.7226.19029
- Wehbi, N. A., and **Slika, W. G.** (2019). A Health Monitoring Framework for Optimal Service Life Predictions of Steel Structures under Fatigue Loading. UNCECOMP 2019: 3rd International Conference on Uncertainty Quantification in Computational Sciences and Engineering, Crete, Greece, 24-26 June, pp. 653-662. DOI: 10.7712/120219.6367.18854
- Mawla, Z., **Slika, W.**, Saad, W., and Saad, G. (2018). Mechanical Properties of Recycled Polyethylene / Polypropylene Material with Embedded Pharmaceutical Waste. 4th World Congress on New Technologies, Madrid, Spain, 19-21 August.
- **Slika, W.**, and Saad, G. (2016). A Robust Polynomial Chaos Kalman Filter Framework for Corrosion Detection in Reinforced Concrete Structures. VII European Congress on Computational Methods in Applied Sciences and Engineering, Crete, Greece, 5-10 June.
- **Slika, W.**, and Yehia, C. (2016). A Sequential Data Assimilation Approach for In-Situ Characterization of Nonlinear Soil Behavior. 15th Faculty of Engineering and Architecture Student and Alumni Conference, AUB, Beirut, 27-28 April.
- **Slika, W.**, and Saad, G. (2015). A Polynomial Chaos Based Kalman Filter Approach for Service Life Prediction of Reinforced Concrete Structures Subject to Chloride Induced Corrosion. Engineering Mechanics Institute Conference, Stanford University, 16-19 June.
- Saad, G., and **Slika, W.** (2014). Stochastic Service Life Prediction of Reinforced Concrete Structures under Corrosion. Engineering Mechanics Institute Conference, McMaster University, 5-8 August.
- **Slika, W.**, and Saad, G. (2014). An EnKF Approach for Structural Health Monitoring of Reinforced Concrete Structures Under Corrosion. 11th World Congress on Computational Mechanics, Barcelona, Spain, 20-25 July.



9. Professional Development Activities

- 3D Printing in Construction: Introduction to the New Center of Excellence in Lebanon, ACTS technical webinar (2023).
- ABET institutional-representative and team-chair training and discussions, Baltimore, 19 July 2018.
- ABET Symposium, San Diego, 12-13 April 2018 (14 Professional Development Hours).
- ABET Self-Study Development Workshop, San Diego, 11 April 2018 (7 Professional Development Hours).
- Workshop on Critical Thinking, Beirut Arab University, October 2017.
- ABET Accreditation Seminar, USEK, Lebanon, 4-5 October 2017.
- Faculty Seminar Series on Learning and Teaching Excellence, Center for Teaching and Learning, American University of Beirut, 11 March-29 April 2014.
- Three professional training courses in non-destructive testing and reinforced-concrete assessment.