



Name: Dr. Sayed Mohamad Soleimani
Rank: Associate Professor
Title: Head of Civil Engineering Department

Personal Information

Nationality: Canadian
AU Joining Date: 18 Aug 2013
E-Mail Address: S.soleimani@ack.edu.kw

Professional Information

Education:	Qualification: <i>Ph.D.</i> Major: <i>Civil Engineering</i> University: <i>The University of British Columbia</i> Year: <i>2007</i>
	Qualification: <i>M.A.Sc.</i> Major: <i>Civil Engineering</i> University: <i>The University of British Columbia</i> Year: <i>2002</i>
	Qualification: <i>B.Sc.</i> Major: <i>Civil Engineering</i> University: <i>Sharif University of Technology</i> Year: <i>1991</i>
Specialization:	Structural Engineering Civil Engineering Materials
Current Academic Position:	Associate Professor Head of Civil Engineering Department
Current Professional Positions:	NA
Previous Administrative Position Held:	Technical Manager in Construction Company (Please see the "Industrial and Technical Experience")

Previous Academic Positions Held:	Adjunct Professor: Azad University, Masters' Program in Structural Engineering, Iran (August 2011 – July 2012)
Fellowships And Honors:	Fellow of the Institution of Engineers Australia (FIEAust) Registered Professional Engineer (P.Eng.) in the Province of British Columbia, Canada, and the Province of Ontario, Canada Registered Professional Engineer (P.E.) in the State of California, USA Registered Professional Engineer in Australia (CPEng) Registered Professional Engineer in Tehran, Iran
Teaching Experience:	Associate Professor: Australian College of Kuwait (ACK), School of Engineering, Department of Civil Engineering (October 2019 – Present) Assistant Professor: Australian College of Kuwait (ACK), School of Engineering, Department of Civil Engineering (Aug 2013 – September 2019) Adjunct Professor: Azad University, Masters' Program in Structural Engineering, Iran (August 2011 – July 2012) Teaching Assistant: The University of British Columbia, Vancouver, BC, Canada (2002-2006)
Industrial And Technical Experience:	Senior Project Engineer: McCormick Rankin Corporation (MRC) a member of MMM Group, Mississauga, Ontario, Canada (August 2012 – August 2013) Technical Manager: S.D.M. Construction Company, Iran (June 2010 – July 2012) Bridge Engineer: Associated Engineering Ltd., Burnaby, BC, Canada (June 2006 – June 2010) Project Engineer: Flar Construction Co., Iran (April 1994 – September 1999) Structural Engineer: Poolad Consulting Engineering Co., Iran (March 1993 – March 1994) Structural Engineer: Hospital Projects Executor (HPE) Co., Iran (March 1991 – February 1993)

Research Interest:	Evaluation, Strengthening, Protection, Repair and Retrofit of Concrete Structures/Bridges Using High-Performance Materials Bridge Engineering/Design Performance of Materials and Structures under Impact Loading Structural Health Monitoring Fiber Reinforced Polymer (FRP) in Concrete Structures FRP Products for Strengthening of Masonry Structures Specialized Concretes Including Fiber Reinforced and Self-Compacting Concrete High Performance Cement-Based Materials Sustainable Civil Engineering Materials Durability of Cement-Based Materials Non-Destructive Test Methods Engineering Education
Research Grants:	Co-Investigator (Co-I) for “Application of Lamb Waves for Structural Health Monitoring of Kuwait Infrastructures – Research Project Number: PR19-15EC-09.” Kuwait Foundation for the Advancement of Sciences (8,500 KWD), 2021 Co-Investigator (Co-I) for “Development of a Novel Low-Energy Building: Utilization of Phase Change Materials, Cool Roofs and Solar Air Conditioning – Research Project Number: CN19-35EM-06.” Kuwait Foundation for the Advancement of Sciences (14,700 KWD), 2021 Co-Investigator (Co-I) for “Implementing Currently Applied eLearning Methods for Higher Education Institutions in the State of Kuwait: Opportunities and Challenges – Research Project Number: CORONAPROP118”, Kuwait Foundation for the Advancement of Sciences (950 KWD), 2020 Principal Investigator (PI) for “Green Approach for concrete Pavement – Research Project Number: PR19-15EV-02”, Kuwait Foundation for the Advancement of Sciences (9,950 KWD), 2019 Principal Investigator (PI) for “Utilization of local waste materials in high performance and self-compacting concrete – Research Project Number: PN18-15EV-01”, Kuwait Foundation for the Advancement of Sciences (8,250 KWD), 2018 Co-Investigator (Co-I) for “Structural Retrofitting with Post-tensioned Cables Using Actively Controlled Mechanical Devices Research Project Number: IRC-2017-18-SOE-CE-PR01”, ACK Research Center (1,125 KWD), 2017
Research and Publications including Journal and Books:	1. S.M. Soleimani, S. Sayyar Roudsari, N. Banthia, A.R. Alaqquad, N. Mohammad, and A. Jumaah, “Analytical and Experimental Study of Using Recycled Tire Products in Pavement-Grade Concrete Suited for Hot Weather Climates.” <i>Construction and Building Materials</i>. Manuscript submitted. 2. R. Soleimanpour, and S.M. Soleimani, “Locating Imperfect Bolted Joints Using Nonlinear Guided Waves.” <i>Journal of Civil Structural Health Monitoring</i>. Manuscript submitted.

3. R. Soleimanpour, and S.M. Soleimani, "Scattering analysis of first and second harmonics of symmetric Lamb wave at cracks in plates." *Journal of Low Frequency Noise, Vibration & Active Control*. Manuscript submitted.
4. S.M. Soleimani, M. Jaeger, A.R. Alaqquad, and A. Faheiman, "Success Factors of Recently Implemented eLearning Methods at Higher Education Institutions in Kuwait." *Quality in Higher Education*. Manuscript submitted.
5. N. Ghareeb, S.M. Soleimani, M. Farhat, and K. Khanafer, "Analytical and Numerical Calculations of Deformation in Piezoelectric Bimorphs with Variable Piezo-thicknesses." *International Journal of Applied Engineering Research*, 6(2), pp. 29-35, 2021.
6. S.S. Roudsari, S.M. Soleimani, and S.A. Hamoush, "Analytical Study of the Effects of Opening Characteristics and Plate Thickness on the Performance of Sinusoidal and Trapezoidal Corrugated Steel Plate Shear Walls." *Journal of Constructional Steel Research*, 182(21): 106660, 2021 (<https://doi.org/10.1016/j.jcsr.2021.106660>).
7. S.M. Soleimani, A.R. Alaqquad, A. Jumaah, N. Mohammad, and A. Faheiman, "Incorporation of Recycled Tire Products in Pavement-Grade Concrete: An Experimental Study." *Crystals*, 11(2): 161, 2021 (<https://doi.org/10.3390/cryst11020161>).
8. S.M. Soleimani, A.R. Alaqquad, A. Jumaah, and A. Majeed, "Examining the Effects of Introducing and Combining Electric-Arc Furnace Slag and Ceramic Waste in a Single Self-Consolidating, High-Strength Concrete Mix." *Applied Sciences*, 10(14), 4844; 2020 (<https://doi.org/10.3390/app10144844>).
9. S.M. Soleimani, A. Faheiman, and Z. Mowaze, "The Effects of Using Crumb Rubber Modified Binder in an Asphalt Pavement." *American Journal of Engineering and Applied Sciences*, 13(2), pp. 237-253, 2020 (<https://thescipub.com/abstract/10.3844/ajeassp.2020.237.253>).
10. S.M. Soleimani, A.R. Alaqquad, T. Afrasiab, A. Jumaah, A. Behbehani, A. Majeed, M.H. Al-Swwaf, and S. Al-Muhannah, "Utilization of Local Waste Materials in High-Performance and Self-Compacting Concrete." *Materials Science Forum*, Vol. 990, pp. 18-28, 2020 (<https://doi.org/10.4028/www.scientific.net/MSF.990.18>).
11. S.M. Soleimani, A.R. Alaqquad, A. Behbehani, M.H. Al-Swwaf, and N. Al-Matroud, "Viability of Using Local Waste Materials in the Production of High-Performance and Self-Compacting." *American Journal of Engineering and Applied Sciences*, 13(1), pp. 1-9, 2020 (<https://doi.org/10.3844/ajeassp.2020.1.9>).
12. S.M. Soleimani, A.J. Boyd, A.J.K. Komar, and S. Sayyar Roudsari, "Fatigue in Concrete under Low-Cycle Tensile Loading Using a Pressure-Tension Apparatus." *Fatigue and Fracture of Non-metallic Materials and Structures*,

- Special issue in *Applied Sciences*, 9(16), 3217, 11 pages, 2019 (<https://www.mdpi.com/2076-3417/9/16/3217>).
13. S.M. Soleimani, and S. Sayyar Roudsari, "Analytical Study of Reinforced Concrete Beams Tested under Quasi-Static and Impact Loadings." *Fatigue and Fracture of Non-metallic Materials and Structures*, Special issue in *Applied Sciences*, 9(14), 2838, 16 pages, 2019 (<https://www.mdpi.com/2076-3417/9/14/2838>).
 14. S. Sayyar Roudsari, S.A. Hamoush, S.M. Soleimani, and R. Madandoust, "Evaluation of Large-size Reinforced Concrete Columns Strengthened for Axial Load Using Fiber Reinforced Polymers." *Engineering Structures*, Vol. 178, pp. 680-693, 2019 (<https://doi.org/10.1016/j.engstruct.2018.09.071>).
 15. S.M. Soleimani, N. Ghareeb and N. Shaker, "Modeling, Simulation and Optimization of Steel Sandwich Panels under Blast Loading." *American Journal of Engineering and Applied Sciences*, 11(3), pp. 1130-1140, 2018 (<https://thescipub.com/pdf/10.3844/ajeassp.2018.1130.1140>).
 16. S. Sayyar Roudsari, S.A. Hamoush, S.M. Soleimani, T. Abu-Lebdeh and M. HaghighiFar, "Analytical Study of Reinforced Concrete Beams Strengthened by FRP Bars Subjected to Impact Loading Conditions." *American Journal of Engineering and Applied Sciences*, 11(2), pp. 407-425, 2018 (<https://thescipub.com/pdf/10.3844/ajeassp.2018.407.425>).
 17. S.M. Soleimani and N. Banthia, "A Novel Drop Weight Impact Setup for Testing Reinforced Concrete Beams." *Experimental Techniques*, Society for Experimental Mechanics (SEM), 38(3), pp. 72-79, 2014 (<https://doi.org/10.1111/j.1747-1567.2012.00810.x>).
 18. S.M. Soleimani and N. Banthia, "Shear Strengthening of RC Beams Using Sprayed Glass Fiber Reinforced Polymer." *Advances in Civil Engineering*, Hindawi Publishing Corporation, Vol. 2012, Article ID 635176, 20 pages, 2012 (<http://dx.doi.org/10.1155/2012/635176>).
 19. S.M. Soleimani and N. Banthia, "Impact Resistance of Scaled Reinforced Concrete Beams." *Journal of Indian Concrete Institute*, Vol. 12(3), pp. 23-34, 2011.
 20. S.M. Soleimani and N. Banthia, "Impact Resistance of Shear-strengthened RC Beams with Sprayed GFRP." *International Journal of GEOMATE*, 1(2), pp. 83-87, 2011 (<https://www.geomatejournal.com/node/74>).
 21. S.M. Soleimani and N. Banthia, "Reinforced Concrete Beams under Impact Loading and Influence of a GFRP Coating." *International Review of Civil Engineering (IRECE)*, 1(1), pp. 68-77, 2010.
 22. F. Majdzadeh, S.M. Soleimani and N. Banthia, "Shear Strength of Reinforced Concrete Beams with a Fiber Concrete Matrix." *Canadian Journal of Civil Engineering*, 33(6), pp. 726-734, 2006 (<https://doi.org/10.1139/I05-118>).

	23. N. Banthia and S.M. Soleimani, "Flexural Response of Hybrid Fiber Reinforced Cementitious Composites." <i>American Concrete Institute (ACI) Materials Journal</i>, 102(6), pp. 382-389, 2005 (https://www.concrete.org/publications/internationalconcreteabstractsportal.aspx?m=details&ID=14800).
Paper Presentations at Professional Conferences:	1. S.M. Soleimani, <u>N. Mohammad</u>, A.R. Alaqqaq, A. Jumaah, T. Afrasiab, "Effect of Incorporating Shredded and Crumbed Rubber in Pavement-Grade Concrete on Elasticity and Toughness Moduli." Proceedings of the 7th World Congress on Civil, Structural, and Environmental Engineering (CSEE'21), Virtual Conference to be held in 2022, Lisbon, Portugal (paper accepted). 2. <u>S.M. Soleimani</u>, A. Mughrabi, M. AlFar, and M. Jaeger, "Development of Student Sustainability Awareness, Attitudes and Actions." Proceedings of the 17th CDIO International Conference (online), Thailand, pp. 14-25, June 2021. 3. <u>R. Soleimanpour</u>, A. Ng, A. Amini, S.M. Soleimani, "Application of Nonlinear Guided Waves for Detecting Loose Flanged Bolted Joints in Pipelines." In: Rizzo P., Milazzo A. (eds) European Workshop on Structural Health Monitoring. EWSHM 2020. <i>Lecture Notes in Civil Engineering</i>, vol 127. Springer, Cham, 2021. 4. S.M. Soleimani, <u>A.R. Alaqqaq</u>, T. Afrasiab, A. Jumaah, A. Behbehani, A. Majeed, M.H. AlSawwaf, and S. AlMuhanna, "A Sustainable Solution for Ceramic and Steel Wastes in Self-consolidating, High-performance Concrete." IOP Conference Series: Earth and Environmental Science, Volume 588, World Sustainable Built Environment Conference - BEYOND 2020, Sweden, November 2020. 5. <u>M. Jaeger</u>, S.M. Soleimani, M. Zhunussova, and D. Adair, "CFD Modeling of Air Pollution within an Inner City Built Environment." Proceedings of the 1st International Conference on Applications of Air Quality in Science and Engineering, pp. 23-32, Kuwait, February 2020. 6. <u>S.M. Soleimani</u>, A. Alaqqaq, T. Afrasiab, A. Jumaah, A. Behbehani, A. Majeed, M. Al-Swwaf, and S. Al-Muhanna, "Utilization of Local Waste Materials in High-Performance and Self-Compacting Concrete." The 4th International Conference on Materials Technology and Applications (ICMTA 2019), Kyoto, Japan, October 2019. 7. <u>S.M. Soleimani</u>, Z. Mowaze, and A. Faheiman, "A Study of Using Asphalt Rubber for Road Pavements in Kuwait." Gulf Conference on Sustainable Built Environment, Kuwait, March 2019.

8. A. Mughrabi, S.M. Soleimani, and N. Mughrabi, "Using Fuzzy Analytic Hierarchy Process to Assign Weights to Project Based Learning Outcomes in the Perspective of the Industry Professionals." Proceedings of the International Conference on PBL for the Next Generation – Blending Active Learning, Technology and Social Justice, Santa Carla, California, USA, February 2018.
9. S. Khazaeli, L. Manolache, and S.M. Soleimani, "Bond Graph based Bayesian Network (BGBN) for Damage Diagnosis in Structural Health Monitoring." Proceedings of the 11th International Workshop on Structural Health Monitoring, Stanford University, California, USA, September 2017.
10. A. Mughrabi, M. Jaeger, and S.M. Soleimani, "Using Fuzzy Analytic Hierarchy Process to Assign Weights to Project Based Learning Outcomes." Proceedings of the 6th International Research Symposium on PBL (IRSPBL), Bogotá, Colombia, July 2017.
11. S.M. Soleimani, A. Boyd, and A.J.K. Komar, "Pressure-tension Test for Assessing Fatigue in Concrete." Proceedings of the 11th International Conference on Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, Civil Infrastructure, and Transportation, Portland, OR, USA, March 2017.
12. N.H. Ghareeb, M.S. Gaith, and S.M. Soleimani, "Smart Structures: Modeling, Analysis, and Control with Different Strategies." Proceedings of the 11th International Conference on Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, Civil Infrastructure, and Transportation, Portland, OR, USA, March 2017.
13. N.H. Ghareeb, M.S. Gaith, and S. M. Soleimani, "Modeling, Analysis and Control of a Smart Composite Structure." Proceedings of the 18th International Conference on Materials and Structural Integrity, Vancouver, BC, Canada, August 2016.
14. S.M. Soleimani, N.H. Ghareeb, N.H. Shaker, and M.B. Siddiqui, "Modeling and Simulation of Honeycomb Steel Sandwich Panels under Blast Loading." Proceedings of the 18th International Conference on Materials and Structural Integrity, Vancouver, BC, Canada, August 2016.
15. S.M. Soleimani and N.H. Ghareeb, "Finite Element Modeling of Steel Beams under Blast Loading." Proceedings of the 5th International Workshop on Performance, Protection & Strengthening of Structures under Extreme Loading, Michigan State University, East Lansing, MI, USA, June 2015, pp. 530-537.
16. S.M. Soleimani and S. Sayyar Roudsari, "Analytical Study of Reinforced Concrete Beams Tested under Impact Loading." Proceedings of the 5th

	International Workshop on Performance, Protection & Strengthening of Structures under Extreme Loading, Michigan State University, East Lansing, MI, USA, June 2015, pp. 620-627. 17. <u>C. Schaper</u>, D. Kennedy, D. Harvey, and S.M. Soleimani, "Pitt River Cable-Stayed Bridge Case Study." Proceedings of the 8th International Conference on Short and Medium Span Bridges, Niagara Falls, Ontario, Canada, August 3-6, 2010. 18. S.M. Soleimani and <u>N. Banthia</u>, "Performance of Sprayed GFRP Shear-strengthened RC Beams under Impact Loading." Proceedings of the 2nd International Workshop, Performance, Protection & Strengthening of Structures under Extreme Loading, Hayama, Japan, August 19-21, 2009. 19. S.M. Soleimani, N. Banthia and <u>S. Mindess</u>, "Sprayed GFRP Shear-Strengthened Reinforced Concrete Beams under Impact Loading." Advances in Construction Materials Proceedings (Symposium in Honor of Prof. Reinhardt), Stuttgart, Germany, July 23-24, 2007. 20. S.M. Soleimani and <u>N. Banthia</u>, "Impact Resistance of Reinforced Concrete Beams with Sprayed GFRP Strengthening." Proceedings of the 5th International Conference on Concrete under Severe Conditions (CONSEC07), Tours, France, June 4-6, 2007. 21. <u>S.M. Soleimani</u>, N. Banthia and S. Mindess, "Behavior of Reinforced Concrete Beams under Impact Loading: Some New Findings." Proceedings of the 6th International Conference on Fracture Mechanics of Concrete and Concrete Structures, Catania, Italy, June 17-22, 2007. 22. S.M. Soleimani, and <u>N. Banthia</u>, "Impact Strengthening of RC Beams with Sprayed FRP." Second International Conference on Recent Advances in Composite Materials (ICRACM – 2007), Symposium in Honor of Prof. Bakht, New Delhi, India, February 20-23, 2007. 23. F. Majdzadeh, <u>S.M. Soleimani</u> and N. Banthia, "Shear Strength of RC Beams with a Fibrous Concrete Matrix." Proceedings of the 3rd International Conference on Construction Materials, Vancouver, Canada, August 22-24, 2005. 24. N. Banthia, R. Gupta and <u>S.M. Soleimani</u>, "Hybrid Fiber Reinforced Concrete for Bridges." Proceedings of the 6th International Conference on Short and Medium Span Bridges, Vol. 1, pp. 297-304, 2002.
College Service including committee Membership:	Civil Engineering Curriculum Committee (Chair) Civil Engineering Accreditation Committee (Chair) Civil Engineering Validation and Moderation Committee (Chair) Civil Engineering Appeals and Complaints Committee (Chair)

National Service:	NA
School Committees:	School of Engineering Curriculum Committee (Member) School of Engineering Council (Member)