CURRICULUM VITAE

Name: Ahmed Senouci

Address: Department of Construction Management

 4734 Calhoon Road, Room 230B
 Phone: (713) 743-6131

 University of Houston
 Fax: (713) 743-0602

Houston, TX 77204-4021 E-mail:asenouci@uh.edu

SUMMARY:

Dr. Senouci has over 25 years of professional experience in the area of civil engineering and construction management. He has successfully obtained over \$4.0 million of funded research and documented his findings in over 130 peer-reviewed publications. The high quality of his research has been confirmed by 3,000 citations, to date. In 2009, Dr. Senouci received the Best Journal Paper Award from one of the most prestigious refereed journals in his field: The ASCE Journal of Construction Engineering and Management.

Dr. Senouci has an extensive experience in optimization modeling. He developed several optimization models for the scheduling of construction projects. He has also a proven research experience in innovative asset management for onshore and offshore oil and gas facilities. Dr. Senouci developed performance models to assist in: (1) identifying, collecting and assessing the effect of various factors on oil and gas pipelines condition and failure modes, (2) building condition and deterioration models, (3) performing life cycle cost analysis for pipeline rehabilitation scenarios, and (4) developing a web-based asset management system. He has also a proven track-record of research excellence in sustainable construction material. Dr. Senouci has also developed sustainable asphalt material by replacing a portion of coarse and fine aggregates with recycled rubber tires to reduce the use of natural aggregates and find environmentally friendly solutions to the increase in the stockpile of scrap tires. Moreover, he was involved in a research project that explored the use of nanotechnology-based products, namely, Carbon Nano-Fiber (CNF) and Carbon Nano-Tube (CNT) in cementitious materials to increase their tensile strength, ductility and toughness, and to hinder the formation and propagation of nano-cracks. Dr. Senouci was also involved in a research project dealing with the use of Shape Memory Alloys (SMAs) for the Rehabilitation of He identified parameters that significantly affect the Deteriorated Concrete Infrastructure in Oatar. behavior of SMA active confinement for circular concrete columns and beams. He also developed constitutive models to predict the response of reinforced concrete members actively confined with shape memory alloys, and evaluated the effect of uncertainty on the life-cycle costs of the proposed retrofit system.

Dr. Senouci is a dedicated and committed teacher. He developed and taught many undergraduate and graduate level courses including scheduling, estimating, contract administration, statics and strength of materials, structural analysis, concrete design, steel design, and wood design. He developed several MATHCAD programs as teaching tools for design and scheduling courses. He has actively participated in the design and development of several undergraduate and graduate curriculums. Dr. Senouci managed and supervised three ABET and two AACE program accreditations. He has also published several research articles related to education.

Dr. Senouci is a consultant to private and public organizations. He has also conducted several workshops for professionals in the areas of construction management, construction contract administration, and

concrete design. Dr. Senouci has an extensive background in computer-aided techniques in project management and engineering design applications.

EDUCATION:

| 1991 | University of Wisconsin-Madison | Madison, Wisconsin |
|------|--|--------------------|
| | Ph. D. Degree in Civil Engineering | |
| | (Advisor: Prof. Alain H. Peyrot) | |
| 1991 | University of Wisconsin-Madison | Madison, Wisconsin |
| | M.S. Degree in Construction Management | |
| | (Advisor: Prof. Neil N. Eldin) | |
| 1987 | University of Wisconsin-Madison | Madison, Wisconsin |
| | M. S. Degree in Civil Engineering | |
| | (Advisor: Prof. Alain H. Peyrot) | |
| 1984 | National Polytechnic School of Algiers | Algiers, Algeria |
| | B. S. Degree in Civil Engineering | Rank: First |

APPOINTMENTS:

| 2014-Present | t Associate Professor & Undergraduate Program Director | |
|--------------|--|--|
| | Department of Construction Management, University of Houston, Texas | |
| 1995-2014 | Assistant Professor, Associate Professor, and Professor | |
| | Department of Civil and Architectural Engineering, Qatar University, Doha, Qatar | |

OTHER APPOINTMENTS:

| 2010-2011 | Visiting Associate Professor |
|-----------|--|
| | Department of Civil Eng. & Construction, Bradley University, Peoria, IL |
| 2005-2006 | Visiting Assistant Professor |
| | Department of Construction Technology, Purdue School of Engineering and Technology, Indianapolis, IN |
| 2005 (6 | Y': '4' - Calalan |

2005 (Summer) Visiting Scholar

Department of Civil Engineering and Environmental Engineering, University of Illinois at Urbana Champaign, Urbana, IL

1998 (Summer) Visiting Scholar

Department of Civil Engineering, Ohio State University, Columbus, OH

PUBLICATIONS

<u>Awards</u>

 Best Peer Reviewed Paper Award, Journal of Construction Engineering and Management, ASCE. 2009.

Refereed Journal Papers

- 1. Mohsen, M., Al-Ansari, M., Taha, R., Senouci, A., AbuTaqa, A. (2020). "Impact of CNTs' treatment, length and weight fraction on ordinary concrete mechanical properties", Construction and Building Materials, Vol. 264, 120698.
- 2. Zakikhani; K., Zayed, T., Abdrabou, B., **Senouci**, **A.** (2020). "Modeling failure of oil pipelines", Journal of Performance of Constructed Facilities, ASCE, Vol. 3, No. 1.
- 3. Mohsen, M., Al-Ansari, M., Taha, R., **Senouci, A.**, AbuTaqa, A. (2020). "Optimum Dispersion Parameters of Carbon Nanotubes: Concrete Strength by Response Surface Methodologies", Qatar University Press, 2020.
- 4. **Senouci, A.**, Warith, K. A., Eldin, N. N. (2019). "Resource-Constrained Construction Scheduling Using Agent Based Modeling Technique", Journal of Civil Engineering and Construction, Vol. 8, No. 1, pp. 25-33.
- 5. El-Abbasy, M. S., Zayed, T., El Chanati, H., Mosleh, F., **Senouci, A.**, Al-Derham, H. (2019). "Simulation-based deterioration patterns of water pipelines", Structure and Infrastructure Engineering, Vol. 15, No. 7, pp. 965-982.
- 6. Alsharqawi, M., Zayed, T., Parvizsedghy, L., **Senouci, A.**, Al-Derham, H. (2019). "Reliability Assessment Model for Water Distribution Networks", Journal of Pipeline Systems Engineering and Practice, Vol. 11, No. 2.
- 7. Al-Ansari, M., Abu Taqa, A. G., **Senouci, A.**, Hassan, M. M., Shaat, A. (2019). "Effect of calcium nitrate healing microcapsules on concrete strength and air permeability", Magazine of Concrete Research, Vol. 7, No. 4, pp. 195-206.
- 8. **Senouci, A.**, Leon, R.M., Eldin, N. (2019). "Schedule Performance Index Effectiveness in Assessing Project Schedule Performance", International Journal of Construction Engineering and Management, Vol. 8, No. 20, pp. 46-55.
- 9. Ala Abutaqa, A., Al-Ansari, M., **Senouci, A.**, Hassan, M., Shaat, A., Akilla, M. (2018). "Characterization of self-healing efficiency of calcium nitrate microcapsules for concrete applications", International Journal of Microstructure and Materials Properties, Vol. 14, No. 3, DOI: 10.1504/IJMMP.2019.10021509.
- 10. Jamil Fazilov, J., **Senouci, A.**, Al-Derham, H. (2018). "Using Behavioral Based Safety to Enhance Safety Performance", Journal of Civil Engineering and Construction, Vol. 7, No. 4, pp. 192-201.
- 11. **Senouci, A.**, Al-Abbasi, M., and Eldin, N. (2018). "Impact of weather conditions on construction labor productivity in Qatar", Middle East J. Management, Vol. 5, No. 1, pp. 34-49.

- 12. Al-Ansari, M., Abu Taqa, A., **Senouci, A.**, Eldin, N., Helal, M., Asiado, C. (2017). "Proposed Formulas for Estimating Splitting Tensile, Shear and Flexural Strengths, and Long Term Deflection Assessment of Self-Compacting Concrete Elements", Science of Advanced Materials, Vol. 9, No. 10, pp. 1751–1761.
- 13. Nikpour, B., **Senouci**, **A.**, Eldin, N. (2017). "Detection Tool for Unbalanced Bids", Open Journal of Civil Engineering, Vol. 7, pp. 409-422.
- 14. Al-Ansari, M., Abutaqa, A., Hassan, M., **Senouci, A.**, Milla, J. (2017). "Performance of Modified Calcium Nitrate Microencapsulation", Construction and Building Materials Journal, Vol. 149, pp. 525-534, DOI: 10.1016/j.conbuildmat.2017.05.152.
- 15. Al-Ansari, M, Abutaqa, A., **Senouci, A.**, Popelka, A., Al-Nuaimi, N, Bani-Hani, K. (2017). "Proposed formulas for estimating splitting tensile, shear and flexural strengths, and long term deflection assessment of self-compacting concrete elements", Science of Advanced Materials, Vol. 9, No. 10, pp. 1751-1761.
- 16. Abu Taqa, A., Abu Al-Rub, R.; **Senouci, A.**, Popelka, A., Al-Nuaimi, N., Bani-Hani, K. (2016). "Experimental Prediction of the Elastic Properties of Nanocomposite Cementitious Materials Based on Nanoindentation Measurements", Science of Advanced Materials, Vol. 9, No. 5, pp. 830-846
- 17. Mohsen, M., Al-Naimi, N., Abu Al-Rub, R., **Senouci, A.**, Bani-Hani, K. (2016). "Effect of mixing duration on flexural strength of multi walled carbon nanotubes cementitious composites", Construction and Building Materials, Vol. 126, pp. 586–598.
- 18. **Senouci, A.,** Ismail, A., Eldin, N. (2016). "Time Delay and Cost Overrun in Qatari Public Construction Projects", Procedia Engineering, Vol. 164, pp. 368-375.
- 19. **Senouci, A.**, Alsarraj, A., Gunduz, M., Eldin, N. (2016). "Analysis of Change Orders in Qatari Construction Projects", International Journal of Construction Management, 17(4), 280-292, http://dx.doi.org/10.1080/15623599.2016.1211973.
- 20. Hassan, M., Kandil, A., **Senouci, A.**, Al-Derham, H. (2016). "Organizational Behavioral Attributes Affecting Likelihood of Adopting Sustainable Construction in Emerging Markets; ASCE, Journal of Construction Engineering and Management, ASCE, Vol. 142, No. 12.
- 21. **Senouci, A.**, Ismail, A., Eldin, N. (2016). "Time Delay and Cost Overrun in Qatari Public Construction Projects", Procedia Engineering, Vol. 164, pp. 368-375.
- 22. **Senouci, A.,** Mubarak, S. (2016). "Multiobjective Optimization Model For Scheduling of Construction Projects under Extreme Weather", Journal of Civil Engineering and Management, Vol. 22, No. 3, pp. 373-381.
- 23. El-Abbasy, M., Mosleh, F., **Senouci**, A., Zayed, T., and Al-Derham, H. (2016). "Locating Leaks in Water Mains Using Noise Loggers," J. of Infrastructure Systems, ASCE, Vol. 22, No. 3, DOI: 10.1061/(ASCE)IS.1943-555X.0000305.
- 24. El-Abbasy, M.S., El Chanati, H., Mosleh, F., **Senouci, A.**, Zayed, T., and Al-Derham, H. (2015). "Integrated Performance Assessment Model for Water Distribution Networks", Journal of Structure and Infrastructure Engineering, Taylor and Francis Group, 12(11), 1505-1524, https://doi.org/10.1080/15732479.2016.1144620.
- El Chanati, H., El-Abbasy, M.S., Mosleh F., Senouci, A., Abouhamad, M., Gkountis, I., Zayed, T., and Al-Derham, H. (2015). "Multi-Criteria Decision Making Models for Water Pipelines", ASCE, Journal of Performance of Constructed Facilities, 30(4), http://dx.doi.org/10.1061/(ASCE)CF.1943-5509.0000842.

- 26. El-Abbasy, M.S., **Senouci, A.**, Zayed, T., and Mosleh, F. (2015). "A Condition Assessment Model for Oil and Gas Pipelines using Integrated Simulation and Analytic Network Process", Journal of Structure and Infrastructure Engineering, 11(3), 263-281.
- 27. Parvizsedghy, L., Senouci, A., Zayed, T., Mirahadi, F., and El-Abbasy, M.S. (2015). "Condition-Based Maintenance Decision Support System for Oil and Gas Pipelines", Journal of Structure and Infrastructure Engineering, Taylor and Francis Group, Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance, Vol. 11, No. 10, pages 1323-1337.
- 28. **Senouci, A.**, Al-Abbadi, I., Eldin, N. (2015). "Safety Improvement on Building Construction Sites in Qatar", Procedia Engineering, 123, 504-509.
- 29. Bani-Hani, K.A. and **Senouci**, **A.** (2015). "Using Waste Tire Crumb Rubber as an Alternative Aggregate for Concrete Pedestrian Blocks", Jordan Journal of Civil Engineering, 9(3), 400-408.
- 30. Abu Taqa, A.G., Abu Al-Rub, R. K., **Senouci, A.,** Al-Nuaimi, N., and Bani-Hani, K.A. (2015). "The Effect of Fiber Geometry and Interfacial Properties on the Elastic Properties of Cementitious Nanocomposite Material", Journal of Nanomaterials, Volume 2015, Article ID 283579, http://dx.doi.org/10.1155/2015/283579.
- 31. Abu Taqa, A.G., Abu Al-Rub, R. K., **Senouci, A.**, Al-Nuaimi, N., and Bani-Hani, K.A. (2015). "The Effect of Interfacial Transition Zone Properties on the Elastic Properties of Cementitious Nanocomposite Materials", Journal of Nanomaterials, Volume 2015, Article ID 258384, http://dx.doi.org/10.1155/2015/258384.
- 32. **Senouci, A.,** Mubarak, S. (2014). "Time-Profit Trade-Off of Construction Projects Under Extreme Weather Conditions", Journal of Construction Engineering and Project Management, 4(4), 33-40.
- 33. Abu Al-Rub, R., Kim, S., Bani-Hani, K., Al-Nuaimi, R., and **Senouci**, **A.** (2014) "Finite Element Simulation of Single Carbon Nanotube Pull-outs from a Cementitious Nanocomposite Material using an Elastic-Plastic-Damage and Cohesive Surface Models", International Journal of Theoretical and Applied Multiscale Mechanics, 3(1), 31 57.
- 34. El-Abbasy, M.S., **Senouci**, **A.**, Zayed, T., Mirahadi, F., and Parvizsedghy, L. (2014). "Unpiggable Oil And Gas Pipelines Condition Forecasting Models", Journal of Performance of Constructed Facilities, Vol. 30, No. 1, http://dx.doi.org/10.1061/(ASCE)CF.1943-5509.0000716.
- 35. El-Abbasy, M.S., **Senouci, A.**, Zayed, T., Mirahadi, F., and Parvizsedghy, L. (2014). "Artificial Neural Network Models for Predicting Condition of Offshore Oil and Gas Pipelines", Automation in Construction, Vol. 45, pp. 50-65.
- 36. El-Abbasy, M.S., **Senouci, A.**, Zayed, T., Mirahadi, F., and Parvizsedghy, L. (2014). "Condition Prediction Models for Oil and Gas Pipelines Using Regression Analysis", ASCE, Journal of Construction Engineering and Management, Vol. 140, No. 6.
- 37. **Senouci, A.,** El-Abbasy, M.S., and Zayed, T. (2014). "Fuzzy-Based Model for Predicting Failure of Oil Pipelines", ASCE, Journal of Infrastructure Systems, Vol. 20, No. 4.
- 38. **Senouci, A.**, El-Abbasy, M.S., Elwakil, E., Abdrabou, B., and Zayed, T. (2014). "A Model for Predicting Failure of Oil Pipelines", Journal of Structure and Infrastructure Engineering, Taylor and Francis Group, Vol. 10, No. 3, pp. 375-387.
- 39. Said, H., Kandil, A., Nookala, S., Hubo, El-Gafy, M., **Senouci, A.**, Al-Derham, H. (2013). "Modeling of the Sustainability Goal and Objective Setting Process in the Pre-Design Phase of Building Projects", American Society of Civil Engineers, Journal of Architectural Engineering, accepted for publication.

- 40. Attallah, S., **Senouci, A.**, Kandil, A., Al-Derham, H. (2013). "Utilization of Life Cycle Analysis to Evaluate Sustainability Rating Systems for Construction Projects with a Case Study on Qatar Sustainability Assessment System (QSAS)", Smart and Sustainable Built Environment, Vol. 2, No. 3, pp.272 287.
- 41. Ateeq, M., **Senouci, A.**, Al-Nageim, H., and Al-Shamma'a, A. (2012). "Microwave Spectroscopy for the Analysis of Absorption Properties of Treated Waste Rubber Aggregates", American Society of Civil Engineers, Journal of Journal of Hazardous, Toxic, and Radioactive Waste, Vol. 16, No.4, pp. 334–342.
- 42. Al-Ansari, M. S., **Senouci**, **A.** (2011). "Drift optimization of high-rise buildings in earthquake zones", The Structural Design of Tall and Special Buildings, Vol. 20, No. 2, pp. 208-222.
- 43. Orabi, O., **Senouci, A.B.**, El-Rayes, K., and Al-Derham, H.R. (2010). "Optimizing Resource Utilization during the Recovery of Civil Infrastructure Systems" American Society of Civil Engineers, Journal of Management in Engineering, Volume 26, Issue 4, pp. 237-246
- 44. Orabi, O., El-Rayes, K., **Senouci, A.B.**, and Al-Derham, H.R. (2009). "Optimizing Post-Disaster Reconstruction Planning for Damaged Transportation Networks", American Society of Civil Engineers, Journal of Construction Engineering and Management, Vol. 135, No. 10, pp. 1039-1048.
- 45. **Senouci, A. B.** and El-Rayes, K. (2009). "Time-Profit Trade-Off Analysis for Construction Projects", American Society of Civil Engineers, Journal of Construction Engineering and Management, Vol. 135, No. 8, pp. 718-725.
- 46. **Senouci, A. B.** and Al-Ansari, M. S. (2008). "Cost Optimization of Composite Beams using Genetic Algorithms", Advances in Engineering Software, Vol. 40, pp. 1112–1118.
- 47. **Senouci, A. B.** and Al-Derham, H. R. (2008). "Genetic Algorithm-Based Multi-Objective Model for Scheduling of Linear Construction Projects", Advances in Engineering Software, Vol. 39, No. 12, pp. 1023-1028.
- 48. **Senouci, A. B.** and Naji, K. K. (2006). "Computerized System Model for Scheduling and Cost Optimization of Nonserial Linear Projects", Surveying and Built Environment, Vol. 17, No. 2, pp.49-62.
- 49. **Senouci, A. B.** and Eldin, N. N. (2004). "Use of Genetic Algorithms in Resource Scheduling of Construction Projects", American Society of Civil Engineers, Journal of Construction Engineering and Management, Vol. 130, No.6, pp. 869-877.
- 50. **Senouci, A. B.** and Naji, K. K. (2003). "Resource-Constrained Scheduling of Construction Projects using Genetic Algorithms", International Journal of Information Technology in Architecture, Engineering and Construction, Vol. 1, No.2., pp. 191-208
- 51. Al-Ansari, M. S., **Senouci, A.** (2002). "Structure Mixture Response of Buildings due to Simulated Earthquake Loading", Engineering Journal of the University of Qatar, Vol. 15, pp. 39-62.
- 52. **Senouci, A. B.** and Adeli, H. (2001). "Resource Scheduling Using Neural Dynamics Model of Adeli and Park", ASCE Journal of Construction Engineering and Management, Vol. 127, No. 1, pp. 28-34.
- 53. Eldin, N.N. and **Senouci, A. B.** (2000). "Scheduling of Linear Projects with Single Loop Structures", Advances in Engineering Software, Vol. 31, No. 10, pp. 803-814.
- 54. **Senouci, A. B.** (2000). "Teaching Structural Steel Design Using Mathcad Program", Engineering Journal of Qatar University, Vol. 13, pp. 309-324.

- 55. **Senouci, A. B.** (2000). "Preliminary Design Of Reinforced Concrete Beams Using Neural Networks", Engineering Journal of Qatar University, Vol. 13, pp. 107-122.
- 56. **Senouci, A. B.** and Al-Bahrawy A. N. (1999). "Optimum Cutting Schedule of Reinforcing Steel Bars", Engineering Journal of the University of Qatar, Vol. 12, pp. 75-89.
- 57. Al-Ansari, M.S., **Senouci, A.B.** (1999). "Use of Mathcad as a teaching and learning tool for reinforced concrete design of footings", Computer Applications in Engineering Education, Vol. 7, No. 3, pp. 146-154.
- 58. Al-Ansari, M.S., **Senouci, A.B.** (1999). "MATHCAD: Teaching and Learning Tool for Reinforced Concrete Design", International Journal of Engineering Education, Vol. 15, No. 1, pp. 64-71.
- 59. **Senouci, A. B.** and M. Ayman Abdul-Salam (1998). "Prediction of Reinforced Concrete Depth Using Neural Networks", Engineering Journal of Qatar University, Vol. 11, pp. 117-132.
- 60. Hanna, A. S. and **Senouci, A. B.** (1997). "Material Cost Minimization of Concrete Wall Forms", Building and Environment, Vol. 32, No. 1, pp. 57-67.
- 61. **Senouci, A. B.** and Al-Ansari, M.S. (1996). "Optimum Design of Concrete Slab Forms", Engineering Journal of Qatar University, Vol. 9, pp. 79-93.
- 62. **Senouci, A. B.** and Eldin, N.N. (1996). "Dynamic Programming Approach To Linear Scheduling", ASCE Journal of Computing in Civil Engineering, Vol. 10, No. 2, pp. 106-114.
- 63. **Senouci, A. B.** and Eldin, N.N. (1996). "A Time-Cost Trade-off Algorithm for Linear Projects", Canadian Journal of Civil Engineering, Vol. 23, No.1, pp. 134-149.
- 64. Hanna, A. S. and **Senouci, A.B.** (1995). "Design Optimization of Concrete-Slab Forms", ASCE Journal of Construction Engineering and Management, Vol. 121, No. 2, pp. 215-221
- 65. Eldin, N.N. and **Senouci, A.B.** (1995). "Condition Rating Prediction of Rigid Pavements by Neural Networks", Canadian Journal of Civil Engineering, Vol. 22, pp. 861-870.
- 66. Eldin, N.N. and **Senouci, A.B.** (1995). "A Pavement Condition Rating Model using Backpropagation Neural Networks", Microcomputer in Civil Engineering, Vol. 10, No. 6, pp. 431-441.
- 67. Eldin, N.N. and **Senouci, A.B.** (1995). "Use of Neural Networks for Condition Rating of Jointed Concrete Pavements", Advances in Engineering Software, Vol. 23, pp.133-141.
- 68. **Senouci, A.B.** and Eldin, N. N. (1995). "Scheduling of Nonserial Linear Projects with Multiple Non-Overlapped Loop Structures", Canadian Journal of Civil Engineering, Vol. 22, No. 4, pp. 785-792.
- 69. Hanna, A. S. and **Senouci, A.B.** (1995). "Optimum Selection of Horizontal Formwork Systems using Neural Network Technique", Canadian Journal of Civil Engineering, Vol. 22, No. 4, pp. 785-792.
- 70. Eldin, N. N. and **Senouci, A.B.** (1994). "Scheduling and Control of Linear Projects", Canadian Journal of Civil Engineering, Vol. 21, pp. 219-230
- 71. Eldin, N. N. and **Senouci, A.B.** (1994). "Measurement and Prediction of the Strength of Rubberized Concrete", Cement and Concrete Composites, Vol. 16, No. 4, pp.287-298.
- 72. Eldin, N. N. and **Senouci, A.B.** (1993). "Rubber Tire Particles As Concrete Aggregate", ASCE Journal of Materials in Civil Engineering, Vol. 5, No. 4, pp. 478-496

- 73. Eldin, N. N. and **Senouci, A.B.** (1993). "Observations On Rubberized Concrete Behavior", Journal of Cement, Concrete, and Aggregate, American Society of Testing Materials, Vol. 15, No.1, pp. 74-84
- 74. Peyrot, A.H., Peyrot, E.M., and **Senouci, A.** (1993). "Optimization methods for transmission line design", Engineering Structures, Vol. 15, No.4, pp. 229-237
- 75. Eldin, N. N. and **Senouci, A.B.** (1992). "Engineering Properties of Rubberized Concrete", Canadian Journal of Civil Engineering, Vol. 19, pp. 912-923
- 76. Eldin, N. N. and **Senouci, A.B.** (1992). "Use of Scrap Tires in Road Construction", ASCE Journal of Construction Engineering and Management, Vol. 120, No. 3, pp. 561-575

Refereed Conference Papers:

- 77. Garimella, S., Senouci, A., and Kim, K. (2020). "Monitoring Fatigue in Construction Workers Using Wearable Sensors." ASCE CRC 2020, Tempe, Arizona, March 8th March 10th, 2020.
- 78. Senouci, A., Bowlekar, N., Khalafi, S.A., Eldin, N. N. (2019). "A Multi Objective Scheduling Model for Minimization of Construction Project Duration, Total Cost and Environmental Impact", 2019 Creative Construction Conference, Budapest, Hungary, June 29th-July 2nd, 2019.
- 79. Senouci, A., Sekar, S., Khalafi, S.A., and Eldin, N.N. (2019). "Current Supply Chain Management in Construction Industry", 2019 Creative Construction Conference, Budapest, Hungary, June 29th July 2nd, 2019.
- 80. **Senouci**, **A.**, Al-Abbasi, M., and Eldin, N. (2017). "Impact of weather conditions on construction labor productivity in Qatar", 9th International Conference on Construction in the 21st Century (CITC-9), Dubai, United Arab Emirates, March 5th-7th, 2017.
- 81. **Senouci**, **A.**, Ismail, A., Eldin, N. (2016). "Time and Cost Overrun in Public Construction Projects in Qatar", 2016 Creative Construction Conference, Sopron, Hungary, June 24-28, 2016.
- 82. **Senouci**, **A.**, Ismail, A., Eldin, N. (2016). "Time and Cost Overrun in Public Construction Projects in Qatar", 2016 Creative Construction Conference, Sopron, Hungary, June 24-28, 2016.
- 83. Leon, R.M., **Senouci, A.**, Eldin, N. (2016). "EVM Schedule Performance Index Schedule Index (SPI) Effectiveness in Assessing Project Schedule Performance", 2016 Canadian Society of Civil Engineers (CSCE) Annual Conference, London, Ontario, Canada, June 1-6, 2016.
- 84. El-Abbasy, M.S., Mosleh, F., **Senouci, A.**, Zayed, T., and Al-Derham, H. (2015). "Towards Locating Leaks in Water Mains using Noise Loggers", Civil and Construction Engr. and Technologies Conference, CONSTENG 15, Vol. 2015, Istanbul, Turkey, December 3-5.
- 85. El-Abbasy, M.S., Zayed, T., and **Senouci, A.** (2015). "Innovative Asset Management Tools for Sustainable Oil and Gas Pipelines", The Fourth International Conference on Soft Computing Technology in Civil, Structural, and Environmental Engineering, Prague, Czech Republic, September 1–4, 2015.
- 86. Al-Abbadi, I., **Senouci, A.**, and Eldin, N. (2015). "Safety Improvement on Building Construction Sites in Qatar", Creative Construction Conference, Krakow, Poland, June 21-24, 2015.
- 87. **Senouci, A.B.**, Abdel Warith, K.A., and Eldin, N.N. (2015). "Agent Based Model for Resource Constrained Scheduling of Construction Projects", 2015 International Workshop on Computing in Civil Engineering, Austin, Texas, June 21–23, 2015.

- 88. Attallah, S., Kandil, A., **Senouci, A.**, Al-Derham, H., and Abdelwarith, K. (2015). "Comparative Evaluation of LEED and QSAS Credits Using Life Cycle Analysis: Case Study from Qatar", 11th Construction Specialty Conference, Montreal, Canada, June 8-10 1, 2015.
- 89. **Senouci, A.B.**, Abu Taqa, A.G., Eldin, N.N., Al-Ansari, M.S. (2015). "Structural Behavior of Self-Compacting Concrete Elements", 51st ASC Annual International Conference Proceedings, Associated Schools of Construction, College Station, Texas, April 22-25, 2015.
- 90. El-Abbasy, M.S., **Senouci, A.,** Zayed, T., and Al-Derham, H. (2014). "Assessing Water Pipelines Performance Using Acyclic Simulation", 14th International Conference on Construction Applications of Virtual Reality in Construction and Conference on Islamic Architecture, Vol. 2014, Sharjah, UAE, November 16 18.
- 91. Attallah, S., Kandil, A., **Senouci, A.**, and Al-Derham, H., Elwakil, E. (2013). "Modeling Impact of Sustainability Policies in Qatar using Agent Based Approach and Life Cycle Analysis", 2014 Conference on Computing in Civil and Building Engineering, Orlando, Florida, June 23-25, 2014.
- 92. Abu Taqa, A., **Senouci, A.**, Al-Ansari, M., Al-Farsi, A., Alkhatib, A., Nasir, A., Eltaweel, F., Rahman, M., Salem, M. (2014). "Structural Behavior of Reinforced Concrete Elements Made of Self-Compacting Concrete", IMS/7 International Conference on Advances in Engineering Materials, American University of Sharjah, United Arab Emirates, March 18-20.
- 93. El-Abbasy, M.S., **Senouci, A.**, and Zayed, T. (2014). "Risk Assessment of Oil and Gas Pipelines", Offshore Arabia Conference and Exhibition, Vol. 2014, Dubai, UAE, March 3–5, 2014.
- 94. El-Abbasy, M.S., **Senouci, A.**, and Zayed, T. (2014). "Unpiggable Oil and Gas Pipelines Condition Forecasting Model", 7th International Petroleum Technology Conference, IPTC, Vol. 2014, Doha, Qatar, January 20–22, 2014.
- 95. El-Abbasy, M.S., **Senouci, A.**, and Zayed, T. (2013). "Predicting Offshore Oil and Gas Pipelines Condition", Qatar Foundation Annual Research Forum Proceedings, QFARF, Vol. 2013, Doha, Qatar, November 24–25, 2013.
- 96. Hassan, M., Kandil, A., **Senouci, A.**, and Al-Derham, H. (2013). "Measuring Construction Materials Price Fluctuation Risk", 4th Construction Specialty Conference, Montreal, Canada, May 29-June 1, 2013.
- 97. Attallah, S., Kandil, A., **Senouci, A.**, and Al-Derham, H. (2013). "Developing a Framework for Calculating LCA Normalization Factors for the State of Qatar", 4th Construction Specialty Conference, Montreal, Canada, May 29-June 1, 2013.
- 98. **Senouci, A.** and Mubarak, S. (2013). "Time-Profit Trade-Off of Construction Projects in Extreme Hot Weather Regions", Construction CPM Conference, New Orleans, Louisiana, USA, January 28 Feb 1, 2013.
- 99. **Senouci, A.** and Mubarak, S. (2012). "Genetic Algorithm-based Multi-Objective Model for Scheduling of Linear Construction Projects Under Extreme Weather Conditions", The First Australasia and South-East Asia Structural Engineering and Construction Conference, Perth, Australia, November 28-Dec 2, 2012.
- 100. **Senouci, A.** and Mubarak, S. (2012). "Profit Optimization for Construction Projects under Extreme Hot Weather Conditions", 2012 International Total Cost Management Conference, Dubai, UAE, November 14-15, 2012.

- 101. El-Abbasy, M.S., **Senouci, A.**, and Zayed, T. (2012). "Unpiggable Oil and Gas Pipelines Condition Forecasting Model", Qatar Foundation Annual Research Forum Proceedings, QFARF, Vol. 2012, Doha, Qatar, October 21 23, 2012.
- 102. Hassan, M., Kandil, A., **Senouci, A.**, Al-Derham, H., Cai, H., and El-Gafy, M. (2012). "A Framework for Modeling the Adoption Process of Construction Sustainability Policies: An Agent-Based Simulation Approach" Proceedings of the CIB W78 2012, 29th International Conference, Beirut, Lebanon, 17-19 October, 2012.
- 103. Attallah, S., Kandil, A., **Senouci, A.**, Al-Derham, H., Cai, H., and El-Gafy, M. (2012). "An Agent Based Modeling and Life Cycle Analysis Based Approach for Enhancing Construction Sustainability in Qatar" Proceedings of the CIB W78 2012, 29th International Conference, Beirut, Lebanon, 17-19 October, 2012.
- 104. Abdelwarith, K., Kandil, A., Haddock, J., **Senouci, A.**, and Al-Derham, H. (2012). "Review of Existing Transportation Sustainability Initiatives and Their Applicability to Qatar", Construction Research Congress, West Lafayette, Indiana, May 21-23, 2012.
- 105. Nookala, S., Said, H., Kandil, A., Hubo, C., Al-Derham, H, **Senouci, A.**, and El-Gafy, M. 2012. "Developing a Framework for Pre-Design Process Simulation for Green Buildings", Construction Research Congress, West Lafayette, Indiana, May 21-23.
- 106. Ateeq, M., Senouci, A., Al-Ansari, M., Al-Shamma'a, A., Al-Nageim, H. (2012), "Optimum percentage of waste rubber aggregates for cost efficient chemical treatment" Built Environment and Natural Environment Conference, Peter Jost Enterprise Centre, School of Built Environment, Liverpool John Moores University, Liverpool, UK, May 30.
- 107. Long, G., Shakir, A., Al Ansari, M., Senouci, A., Al Nageim, H., Al-Shamma'a, A. (2012), "Indirect Tensile Modulus and Deformation of Upgraded Rubberized Bituminous Material", Built Environment and Natural Environment Conference, Peter Jost Enterprise Centre, School of Built Environment, Liverpool John Moores University, Liverpool, UK, May 30.
- 108. Ateeq, M., **Senouci, A.B.**, Al-Ansari, M.S., Al-Shamma'a, A., Al-Nageim, H. (2012), "Mechanical performance of rubberized bituminous mix design" Proceeding of the 11th Annual International Conference on Pavement Engineering and Infrastructure, Britannia Adelphi Hotel, Liverpool, UK, February 15-16.
- 109. **Senouci, A.**, Bani-Hani, K., AlDous, K., Ehsan, B., AbuHassan, M., AlQassass, M. (2011). "Using waste tire crumb rubber as an alternative aggregate for concrete pedestrian blocks", The Sixth International Structural Engineering and Construction Conference, Zurich, June 21-26.
- 110. Ateeq, M., **Senouci, A.**, Al-Nageim, H., Al-Shamma'a, A. (2011), "A new approach to enhance the properties of waste polymer" Built Environment and Natural Environment (BEAN) Conference, BEST Research Institute, 2011, Peter Jost Enterprise Centre, Liverpool John Moores University, Liverpool, UK, May 10.
- 111. Ateeq, M., **Senouci, A.B.**, Al-Shamma'a, A., Al-Nageim, H. (2010). "Study and analysis of the properties of upgraded coarse waste rubber aggregates", LCMT 9th International Conference on Sustainable Construction Materials and Technology in Asphalt, Pavement Engineering, and Highway Maintenance, Liverpool, UK, February 17-18.
- 112. Long, G., **Senouci, A.B.**, Al-Nageim, H., and Al-Shamma'a, A. (2010). Upgrading rubberized bituminous material for use in school playground pavement, 9th International Conference

- Sustainable Construction Materials and Technology in Asphalt, Pavement Engineering and Highways Maintenance, Liverpool, UK, February 17-18, 2010
- 113. **Senouci, A.** and Al-Nuaimi, N. (2009). "Genetic Algorithm-Based Multi-Objective Design Model for Reinforced Concrete Beams", 5th International Structural Engineering & Construction (ISEC-5) Conference, Las Vegas, Nevada, September 21-27, 2009.
- 114. Al Nageim, H. and **Senouci, A.B.** (2009), "Waste Rubber Aggregates for Use in Asphalts: A Laboratory Study", Fifth International Conference in the 21st Century (CITC-V), Istanbul, Turkey, May 20-22, 2009.
- 115. Orabi, W., El-Rayes, K., **Senouci, A.B.**, and Al-Derham, H. R. (2009). "Planning Post-Disaster Reconstruction Efforts of Damaged Transportation Networks" submitted for publication in the Proceedings of the 2009 Construction Research Congress, ASCE, Seattle, Washington, April 4-7, 2009.
- 116. Ateeq, M., Long, G., **Senouci, A.B.**, Al-Nageim, H., Al-Shamma'a, A. (2009), "Upgrading coarse and fine waste tire rubber aggregate material using LJMU technology, chemical additives, and EM waves" 8th LCMT Annual International Conference; Sustainable Aggregates, Pavement Engineering, and Asphalt Technology, Design Construction, Management, Performance and Rehabilitations, Liverpool, UK, February 18-19, 2009.
- 117. **Senouci, A. B.** and Al Nuaimi, N. A. 2008. "Cost Optimization of Composite Beams Using Genetic Algorithms", 5th International Conference on Innovation in Architecture, Engineering and Construction, Antalya, Turkey, June 23-25, 2008.
- 118. **Senouci, A. B.** and Al-Derham, H. R. (2007). "Duration-Profit Trade-off Analysis of Construction Projects", 4th International Conference on Construction in the 21st Century (CITC-IV), "Accelerating Innovation in Engineering, Management", Gold Coast, Australia, July 11-13, 2007.
- 119. **Senouci, A. B.** and Al-Derham, H. R. (2006). "Genetic Algorithm-Based Multi-Objective Model for Scheduling of Linear Construction Projects", 5th International Conference on Engineering Computational Technology, Las Palmas de Gran Canaria, Spain, September 12-15, 2006.
- 120. **Senouci, A. B.** and Eldin, N. N. (2005). "Genetic Algorithm Model for Scheduling and Cost optimization of Nonserial Linear Projects", 3th International Structural Engineering and Construction (ISEC-03), Tokuyama College of Technology, Shunan, Japan, September 20-23, 2005.
- 121. **Senouci, A. B.** and Naji, K. K. (2003). "Resource Scheduling of Construction Projects using a Hybrid Genetic Algorithm Model", 2nd International Structural Engineering and Construction (ISEC-02), Rome, September 23-26.
- 122. **Senouci, A. B.** (2001). "Use of Mathcad as Teaching and Learning Tool for Project Scheduling", The First International Structural Engineering and Construction Conference, University of Hawaii at Manoa, Honolulu, Hawaii, 24-27 January 2001.
- 123. Bohnhoff, D. R., **Senouci, A. B.**, Moody, R. C., and Boor, P. A. (1993). "Bending Properties of STP-Laminated Posts", International Summer Meeting sponsored by the American Society of Agricultural Engineering and the Canadian Society of Agricultural Engineering, Spokane Center, Spokane, Washington, USA.
- 124. Hanna, A. S. and **Senouci, A. B.** (1993). "Neural Network Development for Selection of Horizontal Formwork Systems", American Concrete Institute Convention in Minneapolis, Minnesota, USA, November 7-12, 1993.

Technical Reports

- 125. Senouci, A., Dedha, A., Resource Constrained Optimized Scheduling of Hydrotesting Activities, PCL Industrial Construction Company, 2020, 11 pp. (\$36,512 project budget)
- 126. Senouci, A., Kim, K., Doddapaneni, N., Talari, A., Dedha, A., Modular Construction Simulation and Optimization. Fluor Enterprises Inc., 2019, 37 pp. (\$50,942 project budget)
- 127. Al-Ansari, M., Dawood, M., Belarbi, A., Senouci, A., Gencturk, B., Rehabilitation of Deteriorated Concrete infrastructure in Qatar using Shape Memory Alloys for Active Confinement. Qatar National Research Fund, 2018, 103 pp. (\$ 272,000 project budget)
- 128. El-Abbasy, M., Moselh, F., Zayed, T., **Senouci, A.,** Al-Derham, H. Technology-Based Asset Management Tools for Sustainable Water Infrastructure in Qatar. Qatar National Research Fund, Doha, Qatar, 2015, 270 pp. (\$669,043 project budget)
- 129. Sabbagh, I., Yasin, M., AlChamaa, I., Nasr, A., Samama, A., Kowita, O. Impact of Change Orders on the Construction Industry in Qatar. Qatar National Research Fund (QNRF), Doha, Qatar, 2015 (\$44,400 project budget)
- 130. El-Abbassy, M., Parvizsedghy, L., Zayed, T, **Senouci, A.** Innovative Asset Management Tools for Sustainable Oil and Gas Pipelines. Qatar National Research Fund, Doha, Qatar, 2014, 260 pp. (\$644,256 project budget)
- 131. Hassan, M., Attallah, S., Kandil, A., **Senouci, A.**, Al-Derham, H., Cai, H., El-Gafy, M. Impact of Environmental Policies on the Construction Industry in Qatar. Qatar National Research Fund, Doha, Qatar, 2014, 274 pp. (\$712,936 project budget)
- 132. Al-Tweel, F., Salem, M., Al-Farsi, A., Alkhatib, A., Rahman, M., Nasr, A., Abu Taqa, A., **Senouci,** A., Al-Ansari, M. Structural Behavior of Self-Compacting Concrete Elements. Qatar National Research Fund (QNRF), Doha, Qatar, 2014 (\$53,400 project budget).
- 133. **Senouci, A.**, Al-Nageim, H., Al-Ansari, M., and Al-Shammaa, A. Upgrading Waste Rubber-Tire Aggregates for Use in School Playgrounds and Tennis Courts, Qatar National Research Fund, Doha, Qatar, 2011. (\$601,000 project budget)
- 134. Dohair, I., Shehadeh, A., Alfar, M., Anayeh, M., Shehada, M., Abu Hassan, M. Bani-Hani, K., **Senouci, A.,** Al-Nuaimi, N. Wireless sensors for corrosion detection of post-tension tendons in bridges. Qatar National Research Fund, Doha, Qatar, 2010. (\$59,400 project budget)
- 135. Shuaib, A., Ibrahim, M., Ghalib, F., Hosni, A., Ghani, S., **Senouci, A.**, Jodeh, S. Numerical and experimental investigation into fresh concrete rheology. Qatar National Research Fund (QNRF), Doha, Qatar, 2010. (\$39,498 project budget)
- 136. Ahsan, B., Abu Hassan, M., Al Qassass, M., Al Dous, K., **Senouci, A.,** Bani-Hani, K. Using waste tire rubber as alternative aggregate for concrete blocks and bricks. Qatar National Research Fund, Doha, Qatar, 2010. (\$30,500 project budget)
- 137. Madhoun, M., Aoda, A., Sadeq, H., Abu-Hijla, A., Senouci, A., Al-Ansari, M. Performance of Reinforced Concrete with Treated Municipal Mixing Water. Qatar University Research Office, Doha, Qatar, 2009 (\$20,000 project budget)

Presentations and Invited Talks

- 1. AIC Exam and CM Curriculum, AIC Construction Certification Commission Meeting, Houston, Texas, January 31, 2020
- 2. A Multi-Objective Scheduling Model for Minimization of Construction Project Duration, Total Cost, and Environmental Impact, Creative Construction Conference, Budapest, Hungary, June 29-July 2, 2019
- 3. Current Supply Chain Management in Construction Industry, Creative Construction Conference, Budapest, Hungary, June 29-July 2, 2019
- 4. Using Monte Carlo Simulations to Assess Module Shipping Programs in EPC Projects, Project Controls Symposium, AACE Region 5, UH, Houston, Texas, November 02-03, 2018
- 5. Agent Based Model for Resource Constrained Scheduling of Construction Projects, ASCE 2015 Computing in Civil Engineering, Austin, Texas, June 21-23, 2015.
- 6. Innovative Asset Management Tools for Sustainable Oil and Gas Pipelines, Workshop for Qatar Petroleum Engineers, Doha, Qatar, April 20, 2014
- 7. Project Management: An Overview Course, Workshop for Qatar Museum Authority staff, Doha, Qatar, June 23-27, 2013
- 8. Time-Profit Trade-Off of Construction Projects in Extreme Hot Weather Regions, Construction CPM Conference, New Orleans, January 30, 2013
- 9. Multi-Objective Scheduling Model for Construction Projects under Extreme Weather Conditions, University of Houston, Houston, December 17, 2013.
- 10. Multi-Objective Optimization Model for Scheduling of Construction Projects, Construction CPM Conference, Orlando, Florida, January 22, 2012.
- 11. Scheduling of Linear Construction Projects, Project Management Institute (PMI), Arabian Gulf Chapter, January 26, 2010.
- 12. Time-Profit Analysis for Construction Projects, Bradley University, December 1, 2009.
- 13. ACI Code for Concrete Design, Workshop, Yanbu, Saudi Arabia, August 8-12, 2009.
- 14. Structural Analysis and Design for Concrete Buildings, Workshop, Yanbu, Saudi Arabia, June 20-24, 2009.
- 15. Genetic Algorithm-Based Multi-Objective Model for Scheduling of Linear Construction Projects, Qatar University Annual Research Forum (QUARF), May 4, 2009.
- Cost Optimization of Composite Steel Beams, Qatar University Annual Research Forum, April 28, 2008
- 17. Genetic Algorithm-Based Multi-Objective Model for Scheduling of Linear Construction Projects, Seminar, Department of Civil and Architectural Engineering, Qatar University, Doha, Qatar, March 21, 2007.
- 18. Artificial Intelligence in Construction Projects, Indiana State University, December 16, 2006.
- 19. Scheduling of Construction Projects Using a hybrid Genetic Algorithm Model, Bradley University, November 22, 2006.

- 20. Resource Scheduling Using Neural Dynamics Model of Adeli and Park, Qatar University, College of Engineering Seminar, November 19, 2002.
- 21. FIDIC Contract Administration, Workshop for Qatar Municipality Engineers, Doha, Qatar, December 15-17, 2003.

RESEARCH GRANTS

External Grants

| External Gra | <u>nts</u> |
|--------------|---|
| 2019-2020 | PI (\$87,921.00) funded by Fluor Enterprises, Inc. |
| | Topic: Oil and Gas Pipeline Design Optimization |
| 2019-2020 | PI (\$36,512.00) funded by PCL Industrial Construction Company |
| | Topic: Resource Constrained Optimized Scheduling of Hydrotesting Activities |
| 2018-2019 | PI (\$50,911.40) funded by Fluor Enterprises, Inc. |
| | Topic: Construction Schedule Simulation and Optimization |
| 2017-2018. | Co-PI (\$23,164.00) funded by Applied Bolting Technology |
| | Topic: An Assessment Study of DuraSquirt DTIs for Flange Connections |
| 2016-2017 | Co-PI (\$120,964.00) funded by Bechtel |
| | Topic: Module Transportation Simulation and Risk-Based Planning |
| 2016-2017 | Co-PI (\$59,705) funded by TxDOT |
| | Topic: Synthesis of Service Life Prediction for Bridges in Texas |
| 2015-2016 | Co-PI (\$297,252) (UH: \$148,812) funded by TxDOT |
| | Topic: Transportation and Economic Impact of Texas Shortline Railroads |
| 2014-2017 | Co-PI (\$272,700) funded by Qatar National Research Fund (QNRF) |
| | Topic: Rehabilitation of Deteriorated Concrete Infrastructure in Qatar using Shape Memory Alloys for Active Confinement. |
| 2014-2015 | PI (\$44,400) funded by Qatar National Research Fund (QNRF) |
| | Topic: Impact of Change Orders on the Construction Industry in Qatar |
| 2011-2016 | Co-PI (\$669,043) funded by Qatar National Research Fund (QNRF). |
| | Topic: Technology-Based Asset Management Tools for Sustainable Water Infrastructure in Qatar |
| 2010-2014 | Co-PI (\$644,256) funded by Qatar National Research Fund (QNRF) |
| | Topic: Innovative Asset Management Tools for Sustainable Oil and Gas Pipelines |
| 2010-2014 | Co-PI (\$712,936) funded by Qatar National Research Fund (QNRF) |
| | Topic: Impact of Environmental Policies on the Construction Industry in Qatar. |
| 2009-2010 | Co-PI (\$39,498) funded by Qatar National Research Fund (QNRF) |
| | |

| | Topic: Numerical and Experimental Investigation into Fresh Concrete Rheology |
|--------------|--|
| 2009-2011 | Co-PI (\$59,400) funded by Qatar National Research Fund (QNRF) |
| | Topic: Wireless Sensors for Corrosion Detection of Post-tensioned Tendons in Bridges |
| 2009-2010 | PI (\$30,500) funded by Qatar National Research Fund (QNRF) |
| | Topic: Using waste tire rubber as alternative aggregate for concrete blocks and bricks. |
| 2008-2009 | PI (\$33,699) funded by Qatar University (QU) |
| | Topic: Performance of Reinforced Concrete with Treated Municipal Mixing Water. |
| 2008-2009 | Co-PI (\$30,137) funded by Qatar University (QU) |
| | Topic: Optimization of Tall Buildings Subjected to Earthquake Loads. |
| 2008-2011 | PI (\$601,256) funded by Qatar National Research Fund (QNRF) |
| | Topic: Upgrading Waste Rubber-Tire Aggregates for Use in School Playgrounds and Tennis Courts |
| 2008-2009 | PI (220,192) funded by Qatar National Research Fund (QNRF) |
| | Topic: Distributed Multi-Objective Optimization for the Construction of Transportation Systems in the State of Qatar. |
| 2004-2005 | Co-PI (\$32,000) funded by Qatar University (QU) |
| | Topic: 3-Dimensional Structural Mixture Theory |
| 2003-2006 | Co-PI (\$40,000) funded by Qatar University (QU) |
| | Topic: Cracks and Deterioration of Structures in UAE and Qatar: Causes, Repair Methods, and Deterrence |
| Internal Gra | <u>nts</u> |
| 2018-2019 | PI (\$6,000) funded by UH CM. |

| 2018-2019 | PΙ | (\$6,000) |) funded by | UH CM. |
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Topic: Oil and Gas Pipeline Design Optimization

2019 **PI** (\$6,000) funded by UH CM

Topic: Resource Constrained Optimized Scheduling of Hydrotesting Activities

PI (\$6,000) funded by UH CM. 2017-2018

Topic: Construction Schedule Simulation and Optimization

Consulting

| Year | Sponsor | Description | Role |
|------|---------------------------|------------------------------|----------------------------|
| 2019 | LyondellBasell Industries | Hot weather concreting | Provide best practices for |
| | | | hot concrete concreting |
| 2009 | Control Trading and | Settlement of major disputes | Consultant - |
| | Contracting Company | regarding compensations | Site examination, |
| | | related to schedule delays, | reconstruction of facts, |

| | | contract disputes, delayed decisions, and disruption of work activities. | apportionment of liabilities, preparation of financial claims, and mediation between parties. |
|------|---|--|---|
| 2007 | Qatar University | Check the deflection of a steel structural roof of the food court at Qatar University. | Consultant: Met with the parties to discuss the problem and clarify the situation, performed deflection calculations, and compared with the deflection limit set in the specification |
| 2007 | ATLAS Telecommunications, Dubai, UAE (AtlasAUH@atlastelecom.ae) | Check the validity of the deflection calculations of a 30-meter free standing monopole, which was provided by JURONG GALVANISERS SDN BHD (juronggalvanisers@yahoo.com) | monopole deflection |
| 2007 | BARWA Real Estate, Doha, Qatar | Phase I. Development of a Framework for Evaluating Construction Systems | Consultant: Developed the evaluation framework and matrices for construction systems |
| 2007 | BARWA Real Estate, Doha, Qatar | Phase II. Evaluate Construction Systems Phase II | Consultant: Evaluate eight construction systems using the Framework and the Evaluation Matrices Developed in Phase I |
| 2001 | Al-Sabah Trading and Contracting | Expert Witness on a court involving the financial liabilities of the parties due a termination for default by a sub-contractor. | Consultant: Site examination, reconstruction of facts, apportionment of liabilities, preparation of financial claims, and mediation between parties. |
| 2000 | Jameco Trading and Contracting | Expert witness on a court case involving flooring tile quality problems, construction problems, and payment problems | Consultant: Forensic investigation, examination of the physical evidence on site, assessing parties' involvement by examining project records, and establishing the financial liabilities of the parties. |
| 2001 | Al-Sabah Trading and Contracting | Expert Witness on a court involving the financial liabilities of the parties due a | Consultant: Site examination, reconstruction of facts, apportionment of |

| | termination for default of a sub-contractor. | liabilities, preparation of financial claims, and |
|--|--|---|
| | suo confuctor. | mediation between parties. |

TEACHING AND STUDENT LEARNING

Course Development and/or Revision

University of Houston, Houston, Texas, 2014-Present.

CNST 6307: Statistical and Optimization Tools for Construction Management

CNST 4311: Structural Steel and Timber Construction

CNST 3355: Strength of Construction Materials

CNST 3155: Construction Materials and Testing

Bradley University, Peoria, Illinois, 2010-2011.

CON 528: Advanced Construction Scheduling

CON 392: Construction Scheduling

CON 272: Construction Materials and Methods II

CE 270: Mechanics of Materials

Indiana University Purdue University Indianapolis (IUPUI), Indianapolis, Indiana, 2006-2007.

CEMT 26700: Materials Testing

CEMT 26000: Strength of Materials

CEMT 16000: Statics

Qatar University, Doha, Qatar, 1995-2014.

EMP 534: Construction Contracts and Legal Concepts in Construction

EMP 531: Construction Engineering Management

EMP 505: Project Management

CVEN 381: Contracts, Specifications, and Local Regulations

CVEN 380: Construction Engineering

GENG 360: Engineering Economics

CVEN 220: Analysis of Structures

CVEN 320 Design of Reinforced Concrete Members

GENG 300: Numerical Methods

CVEN 220: Analysis of Structures

CVEN 214: Strength of Materials

CVEN 213: Statics

CVEN 210: Properties and Testing of Materials

GENG 111: Engineering Graphics

GENG 107: Engineering Skills and Ethics

Evidence of Student Learning

Graduate Dissertation/Thesis/Projects

- 1. Amirhesam Khalafi, M.S. Project. Multi-mode Resource-Constrained Multi-Projects Scheduling in large-scale Construction Projects. December 2019. Advising Effort: Chair.
- 2. Uday Anghan, M.S. Project. U of H Construction Management Safety Assessment HoloLens. May 2018. Advising Effort: Chair.
- 3. Marcella Chavez, M.S. Project. Effective Transitions of Project Team Roles and Responsibilities to a New Project. May 2018. Advising Effort: Chair.
- 4. Anuradha Garimella, M.S. Project. Monitoring Fatigue in Construction Workers Using Wearable Sensors. May 2018. Advising Effort: Chair.
- 5. Mohammed Mohsen, Ph.D. Thesis. Effect of Mixing Duration and Intensity on Dispersion and Flexural Strength of Multi Walled Carbon Nanotubes (MWCNT) Cement Composites. May 2018. Advising Effort: Co-Chair.
- 6. Sriram Sekar, M.S. Project. A Survey on the Current Scenario of Supply Chain Management in Construction. May 2018. Advising Effort: Chair.
- 7. Ali Jedinia, M.S. Project. The Relationship between Pulse Training and Incident Rates in Technip USA. December 2017. Advising Effort: Chair.
- 8. Murtuza Kachwala, M.S. Project. Field use of Fitbit Activity Tracker to Identify Construction Workers' Physiological Limits for Fatigue Using RPE Brog's Self-Assessment Method. December 2017. Advising Effort: Chair.
- 9. Ross Herbst, M.S. Project. Delivering Successful Industrial Construction Projects with the Use of Earned Value Management. May 2017. Advising Effort: Chair
- 10. Chris Jordan, M.S. Project. Potential Use and Benefits of Automation for Traffic Control in Roadway Construction. May 2017. Advising Effort: Chair
- 11. Sadra Kassaei, M.S. Project. Evaluating Dust and Respirable Crystalline Silica Particle Monitoring Processes in Construction Sites: Proposing Data Centric Workflow Utilizing BIM. May 2017. Advising Effort: Chair
- 12. Marcos Osorio, M.S. Project. Real Time Dust Monitoring in Construction Site. May 2017. Advising Effort: Chair.
- 13. Babak Nikpoor, M.S. Project. Δ BPI, Contractor's Financial Motivation Simulating/Monitoring Tool. May 2017. Advising Effort: Chair
- 14. James Whitt, M.S. Project. Safety Performance through Operational Discipline. Expected May 2017. Advising Effort: Chair.

- 15. Ashok kumar velusamy, M.S. Project. Supply Chain Management in Construction Projects: Diagnosis and Application Issues. May 2017. Advising Effort: Chair.
- 16. Jamil Fazilov, M.S. Project. Using Behavioral Based Safety to Enhance Safety Performance. May 2017. Advising Effort: Chair.
- 17. Mostafa Selim, M.S. Thesis. Water Distribution Network Performance. May 2017. Advising Effort: Co-Chair.
- 18. Ahmed Sadek, M.S. Thesis. Corridor Infrastructure Strategies. May 2017. Advising Effort: Co-Chair.
- 19. Ahmed Badawy, M.S. Thesis. Criticality of Water Network Components. December 2017. Advising Effort: Co-Chair.
- 20. Ahmed Moursi, M.S. Thesis. Reliability of Water Networks. December 2017. Advising Effort: Co-Chair.
- 21. Ricky M. Leon, M.S. Project. EVM Schedule Performance Index (SPI) Effectiveness in Assessing Project Schedule Performance. December 2016. Advising Effort: Chair
- 22. Hasan Unal, M.S. Project. Change Order Management in Charter Schools Construction Projects: A Case Study. December 2016. Advising Effort: Chair.
- 23. Urjita Bowlekar, M.S. Project. A Multi-objective Scheduling Model for Minimization of Construction Project Duration, Total Cost, and Environmental Impact. May 2016. Advising Effort: Chair
- 24. Christian Sathwik, M.S. Project. Study of Knowledge Management Awareness in Commercial Construction. May 2016. Advising Effort: Chair
- 25. Minoo Taghavi, M.S. Project. Cost-Time-Safety Trade-off Analysis of Construction Projects. May 2016. Advising Effort: Chair
- 26. Nathan Woods, M.S. Project. EPC Project Schedule Metric Analysis, What is the Real Industry Standard. May 2016. Advising Effort: Chair
- 27. Laya Sedghy. Ph.D. Thesis. Risk/Criticality of Oil and Gas Pipelines. November 2015. Advising Effort: Co-Chair.
- 28. Ala Abu Taqa, Ph.D. Thesis. Elastic Properties of Nanocomposite Cementitious Material. June 2015. Advising Effort: Chair.
- 29. Ahmed Alsarraj, M.S. Project. Analysis of Change Orders in Qatari Construction Industry. February 2015. Advising Effort: Co-Chair.
- 30. El-Abbasy, Mohammed, Ph.D. Thesis. Finance Based Scheduling for Multi Projects using Multi resources. February 2015. Advising Effort: Co-Chair.
- 31. Alaa' Ismail, M.S. Project. Time and Cost Overrun in Public Construction Projects In Qatar. September 2014. Advising Effort: Chair.
- 32. Ibrahim Al-Abbadi, M.S. Project. Risk Management for Safety Improvement on Building Construction Sites in Qatar. June 2014. Advising Effort: Chair.
- 33. Fadi Mosleh, M.S. Thesis. Fuzzy-Based Condition Assessment Model for Offshore Gas Pipelines in Qatar. September 2014. Advising Effort: Co-Chair.
- 34. Mohammed Al-Abbasi, M.S. Project. Impact of Weather Conditions on Construction Labor Productivity in Qatar. June 2014. Advising Effort: Co-Chair.

- 35. Hisham El Chanati, M.S. Thesis. Performance Assessment of Water Network Infrastructure. May 2014. Advising Effort: Co-Chair.
- 36. Iason Gkountis, M.S. Thesis. Infrastructure Performance Assessment of Subway Networks. May 2014. Advising Effort: Co-Chair.
- 37. Bassem Abdrabou, M.S. Thesis. Failure Prediction Model for Oil Pipelines. November 2012. Advising: Co-Chair.
- 38. Muhammad Ateeq, Ph.D. Thesis. Upgrading waste rubber aggregates using chemical additives and electromagnetic waves for various industrial applications. November 2012. Advising Effort: Co-Chair
- 39. Guan Long, Ph.D. Thesis. Upgrading Rubber Aggregates for Use in Bituminous Materials. November 2012. Advising Effort: Co-Chair.

Undergraduate Research

- 1. Hala Abdo, Behavior of High Strength CNT/CNF Foamed Precast Concrete Panels, Proposal submitted to Precast Concrete Institute (PCI)-Daniel Jenny Fellowship, March 2016.
- 2. Matthia Bowman, Innovative 3D Location Detection Models for Plastic Gas Pipes, Proposal submitted to Pipeline Safety Research Competitive Academic Agreement Program (CAAP) FY 2015, US Department of Transportation, preparation, May 2015.
- 3. Ismail Sabbagh, Malek Yasin, Imad Edden AlChamaa, Anas Nasr, Abdulrahman Samama, Osama Kowita, *Impact of Change Orders on the Construction Industry in Qatar*, UREP 15 004 2 002, Qatar National Research Fund (QNRF), 03/01/2014 03/01/2015. Advising Effort: Chair.
- 4. Mr. Firas Al-Tweel, Mohammed Salem, Ahmed Al-Farsi, Anas Alkhatib, Md Hasibur Rahman, Anas Nasr, *Structural Behavior of Self-Compacting Concrete Elements*, Undergraduate Research Project, UREP 13 084 2 031, Qatar National Research Fund (QNRF), 04/04/2013 04/12/2014. Advising Effort: Chair.
- 5. Ibrahim Dohair, Abdulfattah Shehadeh, Mohammad Alfar, Momen Anayeh, Mohamed Shehada, Mohannad Abu Hassan, *Wireless sensors for corrosion detection of post-tension tendons in bridges*, Undergraduate Research Project, UREP 07 164 2 045, Qatar National Research Fund (QNRF), 12/31/2009 05/31/2011. Advising Effort: Co-Chair.
- 6. Abdullah Shuaib, Mohammed Ibrahim, Fahad Ghalib, Ahmed Hosni, *Numerical and experimental investigation into fresh concrete rheology*, Undergraduate Research Project, UREP 07 105 2 029, Qatar National Research Fund (QNRF), 12/31/2009 12/31/2010. Advising Effort: Co-Chair.
- 7. Bappy Ahsan, Mohammed Abu Hassan, Mohammed Al Qassass, Khalid Al Dous, *Using waste tire rubber as alternative aggregate for concrete blocks and bricks*, Undergraduate Research Project, UREP 06 070 2 015, Qatar National Research Fund (QNRF), 06/15/2009 06/15/2010. Advising Effort: Chair.
- 8. Mohamad Madhoun, Ahmad Aoda, Haytham Sadeq, Abdurahman Abu-Hijla, Performance of Reinforced Concrete with Treated Municipal Mixing Water, Qatar University Internal Grant, 03/18/2008-08/18/2009.
- 9. More than 100 Capstone Senior Design Projects at Qatar University, Doha, Qatar. Advising Effort: Chair or Co-Chair.

- 1. Niraj Shrestha, M.S. Student, 2020, Teaching Assistant for CNST 3355. Currently, he is a graduate student in the Department of Civil and Environmental Engineering at the University of Houston.
- 2. Ansh Dedha, M.S. Student, 2019-2020, Research Assistant for Resource Constrained Optimized Scheduling of Hydrotesting Activities research project that was sponsored by PCL Industrial Construction Company. He is currently is a Software Developer at Paycom in Irving, Texas.
- 3. Syeda Ayeen Uz Zehra, M.S. Student, 2019-2020. Assistant for Resource Constrained Optimized Scheduling of Hydrotesting Activities research project that was sponsored by PCL Industrial Construction Company. She is currently a Master of Science student at the University of Houston.
- 4. Mohammad Arsalan Javeed, M.S. Student, 2019-2020. Research Assistant for Oil and Gas Pipeline Design Optimization research project that was sponsored by Fluor Enterprises, Inc. He is currently a Master of Science student at the University of Houston
- 5. Sindhuja Reddy Vedire, M.S. Student, 2020. Research Assistant for Oil and Gas Pipeline Design Optimization research project that was sponsored by Fluor Enterprises, Inc. She is currently a Master of Science student at the University of Houston.
- 6. Shaima Aziz, M.S. Student, 2019, Teaching Assistant for CNST 3355.
- 7. Navya Doddapaneni, M.S. Student, 2018, Research Assistant for Modular Construction Simulation and Optimization research project that was sponsored by Fluor Enterprises Inc. Currently, she is Software Developer at Brinqa in Houston, Texas.
- 8. Akhil Talari, M.S. Student, 2018, Research Assistant for Modular Construction Simulation and Optimization research project that was sponsored by Fluor Enterprises Inc. Currently, he is a Software Engineer at Machfu, Inc. in Maryland.
- 9. Sarah Khan, M.S. Student, 2018, Teaching Assistant for CNST 3355. Currently, she is a Bridge EIT at HDR in Dallas/Fort Worth Area.
- 10. Zeeshan Akhter, M.S. Student, 2017, Teaching Assistant for CNST 3355.
- 11. Madhumita Akhuli, M.S. Student, 2017, Research Assistant for Modular Construction Simulation and Optimization research project that was sponsored by Fluor Enterprises Inc. Currently, she is a consultant at Synergen Consulting International, LLC.
- 12. Amy Mao, M.S. Student, 2017, Research Assistant for "Module Transportation Simulation and Risk-based Planning" research project that was sponsored by Bechtel Corporation. Currently, she is a Data Engineer at Wood Mackenzie in Houston, Texas.
- 13. Irteza Nasir, M.S. Student, 2017, Research Assistant for Modular Construction Simulation and Optimization research project that was sponsored by Fluor Enterprises Inc. Currently, he is a Software Engineer at Lam Research in Portland, Oregon Area.
- 14. Pranav Purohit, M.S. Student, 2017, Research Assistant for "Module Transportation Simulation and Risk-based Planning" research project that was sponsored by Bechtel Corporation. Currently, he is a Logistics Analyst for Tesla in Fremont, California.
- 15. Li Jing, M.S. Student, 2016, Assist with proposal submission to Precast Concrete Institute (PCI). Currently, M.S. Student in the Department of Civil and Environmental Engineering at UH.
- 16. Sanaz Karami, M.S. Student, 2016, Research Assistant for "Module Transportation Simulation and Risk-based Planning" research project that was sponsored by Bechtel Corporation. Currently, she is a Lead Consultant –Data Analytics at The CARIAN Group in New York City, New York.
- 17. Nischalkarthick Mapaskshi, M.S. Student, 2016, Teaching Assistant for CNST 3355.

- 18. Ruben Mariduena, M.S. Students, 2016, Research Assistant for "Module Transportation Simulation and Risk-based Planning" research project that was sponsored by Bechtel Corporation. Currently, he is a Simulation Specialist at Bechtel Oil, Gas, and Chemicals in Houston, Texas.
- 19. Ishan Sharma, M.S. Student in Civil Engineering, 2016, Assist with proposal submission to Precast Concrete Institute (PCI). Currently, He is a Senior Structural Engineer at McDermott International Inc. in Houston, Texas.
- Gandhimathi Velusamy, Ph.D. Student, 2016, Assist with C++ Programming. Currently, she is a lecturer in the department of Engineering Technology in the College of Technology at the University of Houston.
- 21. Mikel Barbara, M.S. Student in Construction Management, 2015. Teaching Assistant for CNST 3355 and CNST 4311. Currently, he is an Advisory and Strategy Consultant at Qubist Pty Ltd, Sydney, Australia.
- 22. Vivek Kumari, M.S. Student in Civil Engineering, 2015. Teaching Assistant for CNST 3355 and 4311. Currently, he is a Civil Engineering Intern at Freeport-McMoRan Mining Company at Morenci, Arizona.
- Saryou Singhal, M.S. Student in Construction Management, 2014. Teaching Assistant for CNST 4311. Currently, he is a CPM Scheduler and Estimator at Willoughby 2000 PLLC in Davidson, North Carolina.

Publications Authored with Undergraduate Students

Peer-Reviewed Conferences

- 1. Abu Taqa, A., Senouci, A., Al-Ansari, M., Al-Farsi, A., Alkhatib, A., Nasir, A., Eltaweel, F., Rahman, M., Salem, M. (2014). "Structural Behavior of Reinforced Concrete Elements Made of Self-Compacting Concrete", IMS/7 International Conference on Advances in Engineering Materials, American University of Sharjah, United Arab Emirates.
- 2. Senouci, A., Bani-Hani, K., AlDous, K., Ehsan, B., AbuHassan, M., AlQassass, M. (2011). "Using waste tire crumb rubber as an alternative aggregate for concrete pedestrian blocks", The Sixth International Structural Engineering and Construction Conference, Zurich, June 21-26.

Posters

- Senouci, A.B., Abu Taqa, A.G., Al-Ansari, M.S., Alkhatib, A.A., Al Farsi, A.M., Nasir, A.A., Eltaweel, F. A., Rahman, M.H., Salem, M.S. (2014). "Structural Behavior of Reinforced Concrete Elements Made of Self-Compacting Concrete", UREP 7th Competition, Qatar National Research Fund, March 11, 2015.
- 2. Bani-Hani, K., Senouci, A., Al-Nuaimi, N., Dohair, I., Shehadeh, A., Alfar, M., Anayeh, M., Shehada, M., Abu Hassan, M. (2012). "Wireless sensors for corrosion detection of post-tension tendons in bridges," 4th Annual UREP Competition, Qatar National Research Fund, March 20, 2012.
- 3. Senouci, A., Bani-Hani, K., AlDous, K., Ehsan, B., AbuHassan, M., AlQassass, M. (2010). "Using waste tire crumb rubber as an alternative aggregate for concrete pedestrian blocks", Civil Engineering Day, Qatar University, May 19, 2010.

Research Reports

- 1. Sabbagh, I., Yasin, M., AlChamaa, I., Nasr, A., Samama, A., Kowita, O. Impact of Change Orders on the Construction Industry in Qatar. Qatar National Research Fund (QNRF), Doha, Qatar, 2015 (\$44,400 project budget).
- 2. Al-Tweel, F., Salem, M., Al-Farsi, A., Alkhatib, A., Rahman, M., Nasr, A., Abu Taqa, A., Senouci, A., Al-Ansari, M. Structural Behavior of Self-Compacting Concrete Elements. Qatar National Research Fund (QNRF), Doha, Qatar, 2014 (\$53,400 project budget).
- 3. Dohair, I., Shehadeh, A., Alfar, M., Anayeh, M., Shehada, M., Abu Hassan, M. Bani-Hani, K., Senouci, A., Al-Nuaimi, N. Wireless sensors for corrosion detection of post-tension tendons in bridges. Qatar National Research Fund, Doha, Qatar, 2010. (\$59,400 project budget)
- 4. Shuaib, A., Ibrahim, M., Ghalib, F., Hosni, A., Ghani, S., Senouci, A., Jodeh, S. Numerical and experimental investigation into fresh concrete rheology. Qatar National Research Fund (QNRF), Doha, Qatar, 2010. (\$39,498 project budget)
- 5. Ahsan, B., Abu Hassan, M., Al Qassass, M., Al Dous, K., Senouci, A., Bani-Hani, K. Using waste tire rubber as alternative aggregate for concrete blocks and bricks. Qatar National Research Fund, Doha, Qatar, 2010. (\$30,500 project budget)
- 6. Madhoun, M., Aoda, A., Sadeq, H., Abu-Hijla, A., Senouci, A., Al-Ansari, M. Performance of Reinforced Concrete with Treated Municipal Mixing Water. Quatar University Research Offic, Doha, Qatar, 2009 (\$20,000 project budget)

Other Evidence of the Scholarship of Teaching

M.S. Thesis and PhD Dissertation Defense Committee Member

- 05/06/2020 M.S. Thesis Defense Committee Member for Salma Mohamed Hamid, Department of Civil and Architectural Engineering, College of Engineering, Qatar University, Doha, Qatar.
- 04/27/2020 M.S. Thesis Defense Committee Member for Ansh Dedha, Department of Computer Science, College of Natural Sciences and Mathematics, University of Houston, Houston, TX 77204.
- 03/02/2020 Ph.D. Prelim Examination Committee Member for Dario Vieira, Department of Civil and Environmental Engineering, University of Houston, Houston, TX 77204.
- 12/04/2019 M.S. Thesis Defense Committee Member for Shaima Aziz, Department of Civil and Environmental Engineering, University of Houston, Houston, TX 77204.
- 11/19/2019 Ph.D. Defense Committee Member for Ben Wang, Department of Civil and Environmental Engineering, University of Houston, Houston, TX 77204.
- 05/13/2019 Ph.D. Prelim Examination Committee Member for Lara Zerbe, Department of Civil and Environmental Engineering, University of Houston, Houston, TX 77204.
- 01/10/2019 M.S. Thesis Defense Committee Member for Sarah Khan, Department of Civil and Environmental Engineering, University of Houston, Houston, TX 77204.
- 03/27/2017 Ph.D. Defense Committee Member for Mohamed Hassan, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906.

- 09/09/2016 M.S. Thesis Defense Committee Member for Harshavardhan Patil, Department of Engineering Technology, University of Houston, Houston, TX 77204.
- 06/10/2015 Ph.D. Prelim Examination Committee Member for Mujahed Mohammad Thneibat, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906.
- 09/07/2015 M.S. Thesis Defense Committee Member for Hussain Al-Thaiban, College of Engineering, Qatar University, Doha, Qatar.
- 12/15/2014 Ph.D. Prelim Examination Committee Member for Mohamed Mansour, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906.
- 07/03/2014 Ph.D. Defense Committee Member for Sherif Attallah, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906
- 12/9/2013 Ph.D. Prelim Examination Committee Member for Sherif Attallah, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906.
- 10/18/2013 Ph.D. Defense Committee Member for Karim Abdel Warith, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906
- 01/06/2013 M.S. Thesis Defense Committee Chair for Ahood Al-Maimani, College of Engineering, Qatar University, Doha, Qatar.
- 05/18/2013 Ph.D. Prelim Examination Committee Member for Mujahed Thneibat, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, IN 47906.
- 09/20/2012 M.S. Thesis Defense Committee Member for Chamakh Lemine, College of Engineering, Qatar University, Doha, Qatar.
- 06/11/2012 M.S. Thesis Defense Committee Member for Saleh Akkila, College of Engineering, Qatar University, Doha, Qatar.

Guest Lectures in Courses

| 11/20/2013 | CVEN 481: Project Planning and Scheduling (Instructor: Dr. Mubarak) |
|------------|--|
| 03/06/2013 | ARCT 341: Structural and Architectural Forms 2, Steel and Shell Structures (Instructor: Dr. Al-Nuaimi) |
| 11/24/2010 | CE 365: Reinforced Concrete Design (Instructor: Dr. El-Chabib). |
| 02/24/2010 | ARCT 430: Contract Documents (Instructor: Dr. Bousaa) |

Technology-Based Teaching

Use of WebCT/Blackboard Learn for providing course material

Use of Top Hat platform for teaching course material

Student Career Advancement

| Name | Graduation Date | Current Position |
|----------------------|------------------------|--|
| Amirhesam Khalafi | December 2019 | Senior Scheduler and Team Leader at HNTB Corporation |
| Uday Anghan | May 2018 | General Contractor in India |
| Marcella Chavez | May 2018 | Engineer I at UniversalPegasus International, A Subsidiary of Huntington Ingalls Industries |
| Anuradha Garimella | May 2018 | Project Engineer at Barbrik Project Ltd., India |
| Sriram Sekar | May 2018 | CAD Technician at Brierley Associates Corporation in Kanab, Utah. |
| Ali Jedinia | December 2017 | Lead Planner/Scheduler for Polyethylene & Normal Alpha Olefin (NAO) Facilities at Chevron Phillips Chemical Company in Baytown, Texas. |
| Murtuza Kachwala | December 2017 | Linux Project Engineer at HP in Cypress, Texas |
| Jamil Fazilov | May 2017 | Senior HSSE Manager at KBR in Houston, Texas |
| Ross Herbst | May 2017 | Construction Leader at Dow in Freeport, Texas |
| Chris Jordan | May 2017 | Chief, Integration & Operations at DoD Human Spaceflight Payloads in Houston, Texas |
| Sadra Kassaei | May 2017 | Sr. Product Manager at Bluebeam, Inc., Houston, Texas. |
| Babak Nikpoor | May 2017 | Senior Project Planner/Scheduler at Arcadis, Chicago, Illinois |
| Marcos Osorio | May 2017 | Consultant at Synergen Consulting International, LP, Houston, Texas |
| Ashok Kumar Velusamy | May 2017 | Assistant Project Manager at KBE Building Corporation, Philadelphia, Pennsylvania. |
| Ricky M. Leon | December 2016 | Business Analyst at Targa Resources, Houston, Texas |
| Hasan Unal | December 2016 | HPS Construction Project Manager, Houston, Texas |
| Urjita Bowlekar | May 2016 | Assistant Project Manager at Willis A. Smith Construction, Inc., Sarasota, Florida |
| Minoo Taghavi | May 2016 | Transportation Engineer at ARA- Onsite Consultant for Maryland State Highway Administration, Washington, D.C. |
| Nathan Woods | May 2016 | Director, Project Controls at Venture Global LNG, Arlington, Virginia. |
| Ala Abu Taqa | June 2015 | Research Associate, Qatar University, Doha, Qatar |
| Alaa Ismail | Sep. 2014 | Design Engineer, Aspire Zone Foundation, Doha, Qatar |
| Ibrahim Al-Abbadi | June 2014 | Engineer, Qatar Urban Planning Authority, Doha, Qatar |
| Mohammed Al-Abbasi | June 2014 | Engineer, Qatar Supreme Education Council, Doha, Qatar |

Student Awards

- 1. Mohamed Mohsen, Oryx GTL R&D Award, Effect of Mixing Patterns on Dispersion and Flexural Strength of Multi Walled Carbon Nanotubes Cement Composites, Doha, Qatar, April 28, 2015.
- 2. Alkhatib, A.A., Al Farsi, A.M., Nasir, A.A., Eltaweel, F. A., Rahman, M.H., Salem, M.S. "Structural Behavior of Reinforced Concrete Elements Made of Self-Compacting Concrete", Finalist in UREP 7th Competition, Qatar National Research Fund, March 11, 2015.
- 3. Dohair, I., Shehadeh, A., Alfar, M., Anayeh, M., Shehada, M., Abu Hassan, M. "Wireless sensors for corrosion detection of post-tension tendons in bridges," *First Prize*, 4th Annual UREP Competition, Qatar National Research Fund, March 20, 2012.

Evidence of Professional Development & Training

| Evidence of Froncis | Tomas Severopment & Training |
|---------------------|--|
| 04/20/2020 | Online Identifying Grant Opportunities using PIVOT and GrantForward, Division of Research, University of Houston, Houston, TX |
| 04/01/2019 | Online Petition Process Training, College of Technology, University of Houston, TX. |
| 03/16/2020 | Teams Training, College of Technology, University of Houston, TX. |
| 02/20-21/2019 | Construction Management Teaching Workshop, American Council for Construction Education Conference, Jacksonville, FL |
| 11/5/2019 | DBIA 2019 Educator Workshop, Design Build Institute of America, Las Vegas, NV. |
| 10/10/2019 | Faculty Search Training, University of Houston, Houston, TX. |
| 08/5-7/2019 | DBIA Certification Workshop, Design Build Institute of America, Nashville, TN. |
| 02/22/2019 | Quality Matters Workshop, College of Technology, University of Houston, TX. |
| 02/15/2019 | POGIL Workshop, College of Technology, University of Houston, Houston, TX. |
| 10/19/2018 | Center Proposal - UH Internal Grant Workshop, University of Houston, Houston, TX. |
| 09/14/2018 | Rubric development workshop titled "A Tool to Improve Student Learning", College of Technology, University of Houston, Houston, TX. |
| 09/19/2018 | Orientation Session on Top Hat: Education Software For Professors and Educators |
| 08/23/2018 | Orientation Session on Top Hat: Education Software For Professors and Educators |
| 06/19/2018 | EAB Institution Report Workshop, Provost Office, University of Houston, Houston, TX |
| 03/16/2018 | IStructE Lunch Meeting/Presentation with Structural Students and Faculty, Department of Civil and Environmental Engineering, University of Houston, Houston, TX. |
| 02/22/2018 | Webinar - Invitation: Transforming Engineering Culture to Advance Inclusion and Diversity (TECAID): An Evidence-Based Approach & Model, College of Technology, University of Houston, Houston, TX. |

| 05/01/2017 | Orientation Session on Top Hat: Education Software For Professors and Educators |
|---------------|--|
| 05/19/2016 | Connecting Blackboard to Online Course Resources: Effective Teaching and Assessment Strategies, Blackboard BITS session |
| 05/17/2016 | Powerful Technology to Engage Your Students – The New Blackboard Collaborate, Blackboard BITS session |
| 11/28/2015 | ASCE Webinar, Monitoring Project Budgets and Schedules: Earned Value Method. |
| 11/28/2015 | ASCE Webinar, Quality Management in Design Organizations. |
| 11/29/2015 | ASCE Webinar, Project Team and People Management. |
| 06/04/2014 | Workshop on "Gradebook Extract from Blackboard to Banner", Qatar University, Qatar. |
| 05/13/2014 | Presentation by Jassim Telefat on "Green Buildings", Qatar Society of Engineers, Doha, Qatar. |
| 05/04/2014 | Seminar on "Development of A Statewide Design-Hour Volume Prediction Model using Artificial Neural Networks", Qatar University, Qatar. |
| 12/02/2013 | Engineering Innovation and Education Forum, College of Engineering, Qatar University, Qatar. |
| 11/28/2013 | Elsevier Science Direct, Scopus, and Mendeley training, Qatar University, Qatar. |
| 07/15-19/2013 | AnyLogic Simulation Software, Summer Training Workshop, Chicago, IL. |
| 05/21/2012 | BIM Workshop, 2012 Construction Research Congress Conference, Purdue University, West Lafayette, IN. |
| 10/29/2011 | Seminar on "So, what is my percent complete anyway?", Project Management Institute-Arabian Gulf Chapter, Doha, Qatar. |
| 12/24/2009 | Seminar on "Engineering Practice", Qatar University, Qatar. |
| 05/21/2012 | LEED Workshop, 2012 Construction Research Congress Conference, Purdue University, West Lafayette, IN |
| 02/12-19/2012 | Green Building Design & Construction Practices, Focal Educational Training & Consultancy, Doha, Qatar. |
| 01/22-26/2012 | PMI Workshop, PMI-Gulf Branch, Doha, Qatar. |
| 10/8/2011 | Seminar on ASTM Standards for Tensile Testing and Introduction to Sample Preparation & Hardness Testing, Grand Hyatt Hotel, Doha, Qatar. |
| 08/17/2011 | Research Services Workshop, Bradley University, Peoria, IL. |
| 04/25-26/2008 | Best Assessment Processes Symposium, Atlanta, Georgia. |

Other Professional Development

Attended the following conferences to stay current in my field:

- 1. ACCE Winter Annual Conference, Jacksonville, Florida, February 20-21, 2020
- 2. AIC Construction Certification Commission Meeting, Houston, Texas, January 31, 2020
- 3. ACCE Summer Annual Conference, Philadelphia, Pennsylvania, July 24-26, 2019

- 4. ACCE Winter Annual Conference, Houston, Texas, February 20-23, 2019
- 5. Creative Construction Conference, Budapest, Hungary, June 29-July 2, 2019
- 6. CII Local Connect's Inaugural Event, UH, December 12, 2018.
- 7. Rice Global E&C Forum, Rice University, Houston, Texas, November 12-13, 2018.
- 8. Project Controls Symposium, AACE Region 5, UH, Houston, Texas, November 02-03, 2018
- 9. 51st ASC Annual International Conference, Associated Schools of Construction, College Station, Texas, April 22-25, 2015.
- 10. Qatar Foundation Annual Research Forum, QFARF, Vol. 2013, Doha, Qatar, November 24–25, 2013.
- 11. 4th Construction Specialty Conference, Montreal, Canada, May 29-June 1, 2013.
- 12. Construction CPM Conference, New Orleans, Louisiana, USA, January 28 Feb 1, 2013.
- 13. Qatar Foundation Annual Research Forum Proceedings, QFARF, Vol. 2012, Doha, Qatar, October 21 23, 2012.
- 14. Construction Research Congress (CRC) Conference, West Lafayette, Indiana, May 21-23, 2012.
- 15. 11th Annual International Conference on Pavement Engineering and Infrastructure, Britannia Adelphi Hotel, Liverpool, UK, February 15-16.
- 16. The Sixth International Structural Engineering and Construction Conference, Zurich, June 21-26.
- 17. LCMT 9th International Conference on Sustainable Construction Materials and Technology in Asphalt, Pavement Engineering, and Highway Maintenance, Liverpool, UK, February 17-18.
- 18. 5th International Structural Engineering & Construction (ISEC-5) Conference, Las Vegas, Nevada, September 21-27, 2009.
- 19. Fifth International Conference in the 21st Century (CITC-V), Istanbul, Turkey, May 20-22, 2009.
- 20. 8th LCMT Annual International Conference; Sustainable Aggregates, Pavement Engineering, and Asphalt Technology, Design Construction, Management, Performance and Rehabilitations, Liverpool, UK, February 18-19, 2009.
- 21. 2nd International Structural Engineering and Construction (ISEC-02), Rome, September 23-26.
- 22. American Concrete Institute Convention in Minneapolis, Minnesota, USA, November 7-12, 1993.

SERVICE

Department, College, and University

| 2014-Present | CM program Undergraduate Program Director |
|--------------|---|
| 2014-Present | Member, College Advisory Committee |
| 2014-Present | Member, College Scholarship Committee |
| 2014-2019 | Member, College Academic Committee |
| 2017-2020 | Member, College Research Committee |
| 2017-Present | Chair, Tenure-Track Faculty Search Committee |
| 2017-Present | Chair, Instructional Faculty Search Committee |
| 2017-2019 | Member, Industrial Board Executive Committee |

| 2011-2014 | Member, College Research and Graduate Studies Committee |
|-----------|---|
| 2011-2012 | Member, Structures Faculty Search Committee |
| 2011-2012 | Member, Construction Faculty Search Committee |
| 2010-2014 | Member, Departmental Quality Assurance Committee |
| 2009-2010 | Member, Departmental Laboratory Committee |
| 2007-2010 | Member, ABET College Committee |
| 2007-2010 | Chair, ABET Departmental Committee |
| 2007-2010 | Member, Departmental Faculty Recruitment Committee |

Professional/Academic Discipline

| 2019-2021 | Editorial Review Board Member for Journal of Civil, Construction, and Environmental Engineering |
|-----------|--|
| 2019-2020 | Editorial Review Board Member for Construction Research Journal |
| 2018-Now | Editorial Review Board Member for Journal of Civil Engineering and Construction |
| 2015-Now | Editorial Board Member, Journal of Civil Engineering and Architecture Research |
| 2012-Now | Editorial Board Member, International Journal of Forensic Engineering and Management |
| 2012-Now | Editorial Board Member, Journal of Civil Engineering Research |
| 2012-Now | Editorial Board Member, ISRN Civil Engineering |
| 2019-Now | Reviewer for American Journal of Civil Engineering |
| 2019-Now | Reviewer for ASCE Construction Research Congress (CRC) Conference |
| 2019-Now | Reviewer for International Conference on Civil Infrastructure and Construction, Doha, Qatar |
| 2019-Now | Reviewer for Transactions on Engineering Management |
| 2019-Now | Review for Journal of Computing in Civil Engineering. (2019 - Present) |
| 2018-Now | Reviewer for Tran-SET Conference |
| 2016-Now | Reviewer for Journal of Construction and Building Materials |
| 2016-Now | Reviewer for Journal of Engineering Structures |
| 2016-Now | Reviewer for Journal of Neural Computing and Applications |
| 2015-Now | Reviewer for ASC (Associated Schools of Construction) Proceedings. |
| 2010-Now | Reviewer for Journal of Construction Engineering and Management (ASCE) |
| 2010-Now | Reviewer for Journal of Automation in Construction |
| 2010-Now | Reviewer for Computer-Aided Civil and Infrastructure Engineering |
| 2004 | Member of the International Technical Committee for the Fourth International Structural Engineering and Construction (ISEC-04), Australia. |
| 2003 | Member of the International Technical Committee for the Third International Structural Engineering and Construction (ISEC-03), Japan. |
| 2000-Now | Reviewer for the American Concrete Institute (ACI) – Materials Journal |
| 1998-2014 | Expert witness for the civil courts of Qatar, Doha, Qatar |
| 1998-Now | Reviewer for the Computer-Aided Civil and Infrastructure Engineering Journal |

Community/Public

| 2015 | Judge for ABC Excellence in Construction, Houston, Texas |
|-----------|---|
| 2016 | Judge in ABC Excellence in Construction, Houston, Texas |
| 2010-2011 | Private School Board Committee Member in Peoria, Illinois |
| 2004-2005 | Qatar Construction Specification Committee Member |
| 2002 | Competition Judge for Arab Cities Organization, Doha, Qatar |
| 1998-2014 | Expert Witness for Civil Courts of Qatar. |

Other Evidence of Professional Service

| 1990-Present | Member of American Society of Civil Engineers (ASCE) |
|--------------|--|
| 1993-Present | Member of American Concrete Institute (ACI) |
| 1994-Present | Member of Structural Engineering Institute (SEI) |
| 2011-Present | Member of Construction Research Congress (CRC) |
| 2011-2014 | Member of American Association of Cost Engineers (AACE) |
| 2011-2014 | Member of Project Management Institute (PMI) |
| 2019-Now | Member of American Council for Construction Education (ACCE) |

HONORS AND AWARDS

| 2011 | First prize in the UREP annual competition (QNRF), March 2012. |
|-----------|--|
| | Project entitled "Wireless Sensors for Corrosion Detection of Post-Tensioned Tendons in Bridges". |
| 2010 | Best Journal Paper Award, 2009 |
| | Journal of Construction Engineering and Management (ASCE) |
| | Paper entitled "Optimizing Post-disaster Reconstruction Planning for Damaged Transportation Networks". |
| 1989 | Research Assistantship from the University of Wisconsin-Madison. |
| 1987 | Full Scholarship from the Algerian government to study for PhD degree in Civil Engineering at the University of Wisconsin-Madison. |
| 1985 | Full Scholarship from the Algerian government to study for Master of Science Degree in Civil Engineering at the University of Wisconsin-Madison. |
| 1979-1984 | First Rank in Civil Engineering (Freshman, Sophomore, Junior, and Senior years), Algiers, Algeria. |